

STATE OF THE REGION 2019 - 2020



ABOUT THE PACIFIC ECONOMIC COOPERATION COUNCIL

The Pacific Economic Cooperation Council (PECC) is a non-profit, policy-oriented, regional organization dedicated to the promotion of a stable and prosperous Asia-Pacific. Founded in 1980, PECC brings together thought-leaders from business, civil society, academic institutions, and government in a non-official capacity. Together, PECC members anticipate problems and challenges facing the region, and through objective and rigorous analysis, formulate practical solutions. The Council serves as an independent forum to discuss cooperation and policy coordination to promote economic growth and development in the Asia-Pacific. PECC is one of the three official observers of the APEC process.

www.pecc.org

The State of the Region report is a product of a taskforce established by the governing body of PECC. While efforts are made to ensure that the views of the PECC members are taken into account, the opinions and the facts contained in this report are the sole responsibility of the authors and editorial committee and do not necessarily reflect those of the member committees of PECC, nor their individual members.

Copyright © 2019 by the PECC International Secretariat

ISBN: 978-981-14-3558-4

EDITORIAL COMMITTEE

EDUARDO PEDROSA Secretary General, PECC International Secretariat / Coordinator of State of the Region

IAN BUCHANAN AUSPECC / Chair, AUSPECC

CHUL CHUNG KOPEC / Senior Vice President, Korea Institute for International Economic Policy

CHIEN-FU LIN CTPECC / President, Taiwan Institute of Economic Research

CHARLES E. MORRISON USPECC / Senior Fellow, East-West Center

KENICHIRO SASAE JANCPEC / President, Japan Institute of International Affairs TAN KHEE GIAP SINCPEC / Associate Professor, National University of Singapore

JUSUF WANANDI INCPEC / Member, Board of Trustees, Centre for Strategic and International Studies, Indonesia

MANFRED WILHELMY CHILPEC / Former Executive Director, Chile Pacific Foundation

YUEN PAU WOO CANCPEC / Senator for British Columbia, Canada

ZHANG XIANYI CNCPEC / Vice-Chair, CNCPEC

TABLE OF CONTENTS

- 4 MESSAGE FROM THE CO-CHAIRS OF PECC
- 6 EXPLANATION OF TERMS USED IN THE REPORT
- 7 EXECUTIVE SUMMARY
- 9 CHAPTER 1: THE ASIA-PACIFIC ECONOMIC OUTLOOK
- 27 CHAPTER 2: APEC BEYOND 2020: WHAT LIES AHEAD?
- 49 CHAPTER 3: INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC
- 67 ANNEX A
- 75 ANNEX B RESULTS OF ASIA-PACIFIC POLICY COMMUNITY SURVEY
- **85 MEMBER COMMITTEES**

MESSAGE FROM THE CO-CHAIRS OF PECC

On behalf of the members of the Pacific Economic Cooperation Council (PECC), it is our pleasure to present our fourteenth annual report on the *State of the Region*. This year we have chosen to focus on the future of APEC. Next year, APEC will reach the milestone of 2020 – the deadline for the Bogor Goals of free and open trade and investment in the Asia-Pacific. In 2016, our Council established a task force to put forward recommendations for what a post-2020 vision for APEC might be.

The vision that our task force developed was:

"An Asia-Pacific community of openly interconnected and innovative economies cooperating to deliver opportunity, prosperity and a sustainable future to all their peoples."

To achieve this vision, our task force suggested 10 key action focus areas for APEC. To get a better sense of the views of the broader policy community on these suggestions, we made these issues the focus of our annual survey. The results on some issues were perhaps predictable, while on other issues they were very surprising. Out of that list of 10 focus areas, the most important area for APEC to focus on was *robust dialogue and effective cooperation among member economies* – this is at the very heart of the idea of APEC and is strongly picked up in Chapter 2 of this report and indeed PECC's own task force. APEC's strength and value proposition lie in its non-binding nature. It is not a negotiating forum. But that strength needs to be properly harnessed. There is the perennial risk in the annual demand for 'deliverables' that APEC becomes more of a negotiating forum rather than focusing on its core value proposition of dialogue. This is, of course, a fine balancing act.

We are reminded that this year is one of anniversaries. This year marks the 75th anniversary of the Bretton Woods Conference and, as already mentioned, the 30th of APEC. These highlight the idea of cooperating and coming together for a broader common purpose. Setting a vision for APEC's work in the post-2020 period should help to define what that purpose is.

This year's report was one fraught with difficulties. As evidenced by the results of our annual survey, the regional policy community's views on the economic outlook have turned negative. Close to 70 percent of respondents expect the global economy to slow next year and 64 percent of respondents selected increased protectionism and trade wars as one of the top 5 risks to growth for their economies. Interestingly, perhaps remarkably, in thinking about the post-2020 vision for APEC, after the idea of robust dialogue, it was policy initiatives that promote environmental sustainability that topped the list of areas for future work – ahead of more traditional APEC issues like support for the multilateral trading system, trade agreements, connectivity, and structural reforms. APEC has done work on environmental issues in the past and indeed has set targets on energy efficiency, but it is not an area that, anyone would argue, APEC has any particular competence. This is something that we will need to think about amongst the regional policy community given the plethora of organizations working on sustainability issues.

We also present the findings of our index of connectivity in the Asia-Pacific region. Throughout APEC's early years on integration, there was an almost implicit assumption somehow that the supply side will follow. Even within PECC, from our establishment in 1980, it took nine years for us to establish the Transportation, Telecommunications and Tourism Task Force that looked at the infrastructure side of integration. In 2013, APEC regional leaders recognized that the achievement of the vision of an Asia-Pacific community required seamless physical, institutional, and people-topeople connectivity and they agreed to establish *"a seamlessly and comprehensively connected and integrated Asia-Pacific"* by 2025 through the APEC Connectivity Blueprint that was adopted the following year in Beijing.

Connectivity itself is a broad and evolving topic. As the chapter discusses, technology is rapidly changing the way in which we connect with each other making measurement an evolving process. The underlying message is that the three pillars are self-reinforcing and inter-related; better transportation linkages between economies foster movements of people; more cooperation between economies facilitates trade and encourages more investment into cross-border and transportation.

In what seems like a long bygone era, APEC was once jibed for being four adjectives without a noun. There was a hope that the 'c' might result one day in another word. Perhaps we need to celebrate more what that the 'c' actually is – Cooperation. It seems all too lacking in today's world of trade wars and denigrating institutions that have been built up to avoid the disorder and conflict of previous eras. As is evident from the survey results, there is strong support for Asia-Pacific economic cooperation across the panoply of issues that are defining and shaping our economies for today and for future generations.

We would like to thank Mr Eduardo Pedrosa for coordinating this year's report and contributing Chapter 1, Dato' Steven Wong as well as our next generation experts for contributing Chapter 2; and Mr Hugh Stephens for Chapter 3 as well as Mr Anthony Viel and Ricardo Briggs from Deloitte for their insights.

We would also like to express our appreciation for the continued efforts of our member committees to get responses to the survey every year and extend our gratitude as well to the APEC Policy Support Unit, the Russian Foreign Trade Academy, and the Russian APEC Study Center. We would also like to thank the editorial committee of this report who provide guidance and insight on the various issues it addresses as well as the staff of our International Secretariat for their work on this report.

Klonald W Compiler

DON CAMPBELL Co-Chair

之前

SU GE Co-Chair

EXPLANATION OF TERMS USED IN THE REPORT

AI APEC	Artificial intelligence
	Asia-Pacific Economic Cooperation
CEPII	Centre d'Etudes Prospectives et d'Informations Internationales
COFER	Currency Composition of Official Foreign Exchange Reserves
CPTPP	Comprehensive and Progressive Agreement on TransPacific Partnership
D1	Dow Jones Industrial Average
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
FTAAP	Free Trade Area of the Asia-Pacific
G20	Group of Twenty (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of
	Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States, and the European Union)
GATT	The General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GNI	Gross National Income
ICT	Information and Communications Technology
IEA	International Energy Agency
IIF	Institute of International Finance
IMF	International Monetary Fund
MSME	Micro, Small and Medium Enterprises
Mtoe	Millions of tonnes of oil equivalent
NA	North America
NEA	Northeast Asia
OCE	Oceania
OECD	Organisation for Economic Co-operation and Development
PECC	Pacific Economic Cooperation Council
PSA	Pacific South America
PSU	(APEC) Policy Support Unit
RAASR	Renewed APEC Agenda for Structural Reform
RCEP	Regional Comprehensive Economic Partnership
RTA	Regional Trade Agreement
SEA	Southeast Asia
SSP	Shared Socioeconomic Pathway
TPP	Trans-Pacific Partnership
UHC	Universal Health Coverage
UNCTAD	United Nations Conference on Trade and Development
UNHLM	United Nations High-Level Meeting
US	United States
WEO	World Economic Outlook
WTO	World Trade Organization

EXECUTIVE SUMMARY

The mood across the Asia-Pacific has soured since this time last year with expectations for global growth turning distinctly negative. Regional economic growth is expected to slow from 3.8 percent growth in 2018 to 3.3 percent growth this year. However, it is the dramatic slowdown in the external sector that is of most concern with export growth slowing from 4.0 percent to just 0.9 growth this year for Asia-Pacific economies. While governments are acting to moderate a slowdown through stimulus measures, primarily interest rate cuts, other actions also need to be taken.

Sixty-eight percent of respondents to PECC's annual survey of the Asia-Pacific policy community expect weaker or much weaker growth for the global economy next year. The top five risks to growth identified by our survey of the Asia-Pacific policy community for their economies are:

- Increased protectionism and trade wars
- A slowdown in world trade growth
- A slowdown in the Chinese economy
- A slowdown in the US economy
- Lack of political leadership

The list of risks remains the same as in 2018, with one exception, a slowdown in the US economy has entered the top 5 list. The US economy has been going through its longest ever economic expansion overtaking the boom that lasted from 1991 to 2001 that ended with the bursting of the dot com bubble. Related to the slowdown in the major economies is the potential for spillover or contagion risks from the top two risks in this year's survey - increased protectionism and trade wars and the slowdown in world trade growth.

Out of a list of 15 possible priorities, the top 5 selected by the regional policy community for discussion by APEC leaders when they meet in Santiago are:

- The China-US trade conflict and rising trade tensions
- The future of the WTO and multilateral trading system
- The emergence of anti-globalization & anti-trade sentiments
- Progress towards the Bogor Goals and the Free Trade Area of the Asia-Pacific (FTAAP)

• Progress on the APEC growth strategy to promote balanced, inclusive, sustainable, innovative and secure growth

Chapter 2 addresses APEC Beyond 2020 and what lies ahead. Next year APEC economies will reach the deadline of 2020 for the Bogor Goals of achieving 'free and open trade in the Asia-Pacific', relations among key member economies are marked by a degree of suspicion and hostility not seen in over half a century. To be sure, periods before this, even after APEC's establishment in 1989, were not free of disputes. Disagreements, however, were managed and not escalated to full-on conflicts.

After a slow multi-year recovery from the 2008 Global Financial Crisis, the green shoots of economic growth are being weighed down by unprecedented policy risks and uncertainties. The multilateral rules-based trading system is also being further degraded in fundamental ways. Equally significant issues of inclusiveness, environmental sustainability and the onset of the digital and technological revolution are rising to the fore. The overarching question that APEC now faces is how it can and should address them. Casting an APEC Post 2020 Vision was always going to be challenging, but recent developments may well be rendering it an impossible zero-sum exercise. APEC was established on the basis that positive-sum cooperation was essential to sustain the region's economic dynamism and progress.

Contrary to those who would write it off, APEC as an institution is still regarded by its key stakeholders as highly relevant in the coming decades. In contrast to the 1994 Bogor Goals, however, APEC's remit is now clearly broader then when the Vision was first conceived. Within the trade and investment agenda, investment and services liberalization and e-commerce and digital trade are now central areas of work. Issues of inclusiveness and sustainability have moved from being ancillary to become important joint goals to be achieved. Within these, the human resource development and structural reforms to capitalize on emerging digital technologies and improve connectivity and investment in infrastructure are critical underlying subthemes. APEC's primary strategic value lies in its being an overarching platform for cooperation rather than negotiating and resolving policy differences. If there is one key to the post 2020 agenda for APEC it lies in the term 'robust dialogue'. It is clear that APEC needs frank, realistic and rational discussions to inject fresh political commitment into what will become its core agenda. This is critical to dispel any doubts that APEC does not have the interest and wherewithal to perform this role.

Chapter 3 presents the findings of PECC's work to construct an index to measure connectivity in the region. In 2013, regional leaders recognized that the achievement of the vision of an Asia-Pacific community required seamless physical, institutional, and people-to-people connectivity. They agreed to establish "a seamlessly and comprehensively connected and integrated Asia-Pacific" by 2025 through the APEC Connectivity Blueprint, with a mid-term review to be conducted by officials by 2020. While the Blueprint sets ambitious targets to realize its vision, it only provides a high-level framework to organize the relevant work streams. In other words, how to measure, monitor and evaluate in concrete terms what progress APEC is making toward achievement of its goals is currently missing from the Blueprint. Against this backdrop, the Standing Committee of the Pacific Economic Cooperation Council (PECC) established a task force to develop a Connectivity Index (the Index).

For the Asia-Pacific region, physical connectivity accounted for 41 percent of connectedness followed by institutional at 35 percent and people to people at 24 percent. While there are some differences at the level of individual economies, the pattern was fairly common across all regional economies no matter the level of development.

The objective of constructing the index was to provide an objective basis for assessing the state of connectivity in the Asia-Pacific. The work led to several conclusions. The first is the importance of the hypothesis that was reached after an extensive literature review and discussion: that the three pillars are self-reinforcing and interrelated. The second is that no one size fits all - no matter how one looks at the data - economies in the region are pursuing different models and approaches. As this index looks a single point in time this effort will need to be repeated to measure progress. The third, based on the index findings, is the priority areas for work. At the aggregate Asia-Pacific level: for physical - transportation and infrastructure; for institutional - trade facilitation and intellectual property; and for people to people - educational mobility and labor exchange. However, these are the aggregate results, there is no reason why these should apply to all regional economies. These are simply the headline numbers from the index. Each economy can look at whether these apply in its own specific circumstances.

While considerable thought and discussion amongst a group of experts went into the selection of indicators and identification of the sub-indices under each pillar. This is one way to measure connectivity. These are not issues just for economists and statisticians but critical to helping policy-makers get a sense of priority for the key issues – improving people's quality of life and increasing opportunities. Free and open trade are necessary but not sufficient conditions for this. Improved connectivity goes some of the way to addressing some of the gaps.

THE ASIA-PACIFIC ECONOMIC OUTLOOK

CONTRIBUTED BY MR EDUARDO PEDROSA, SECRETARY GENERAL, PECC INTERNATIONAL SECRETARIAT AND COORDINATOR OF THE STATE OF THE REGION REPORT PROJECT

The mood across the Asia-Pacific has soured since this time last year with expectations for global growth turning distinctly negative. Regional economic growth is expected to slow from 3.8 percent growth in 2018 to 3.3 percent growth this year. However, it is the dramatic slowdown in the external sector that is of most concern with export growth slowing from 4.0 percent to just 0.9 growth this year for Asia-Pacific economies. While governments are acting to moderate a slowdown through stimulus measures, primarily interest rate cuts, other actions also need to be taken.

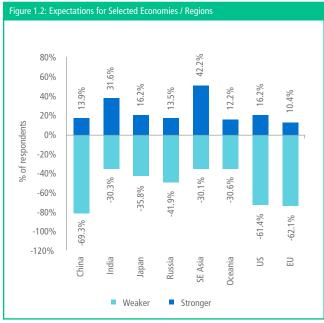
The first among these is to restore confidence in the rules-based trading system. Of immediate concern is the resolution of the US-China trade conflict, which is having a broad and costly impact on business decisions. The second is to undertake significant unilateral structural reform measures to promote more balanced, inclusive, and sustainable growth. The corporate sector across the region and the world has large amounts of cash reserves that can be invested into long-term growth and productivity enhancing activities, however, policy uncertainties have kept capital expenditure at persistently low levels. Third while many of the actions required to combat a slowdown lie with domestic authorities, trust must be restored to enable sufficient coordination if not cooperation among competent authorities on the wide range of challenges.



As demonstrated by the swift conclusion to the U.S.-Japan Trade Agreement, this is not beyond the realm of possibility.

This is a year of anniversaries, it is the 75th anniversary of the creation of the Bretton Woods Institutions – the International Monetary Fund and the World Bank, the 30th anniversary of the creation of APEC, the 20th of the G20 process, and the 10th since G20 leaders agreed to a Framework for Strong, Sustainable and Balanced Growth that APEC leaders agreed to support in the same year and "to develop a comprehensive long-term growth strategy that supports more balanced growth within and across economies, achieves greater inclusiveness in our societies, sustains our environment, and which seeks to raise our growth potential through innovation and a knowledge-based economy."

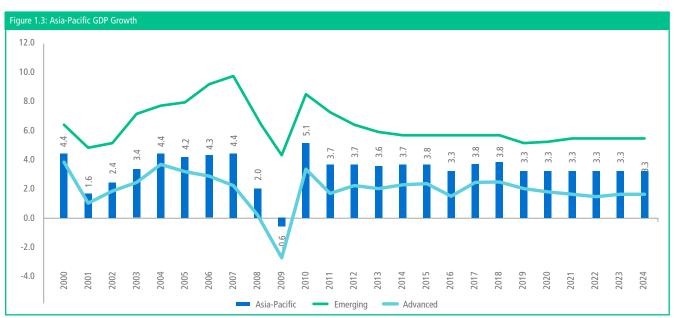
As shown in Figure 1.1, only 9 percent of respondents to PECC's annual survey of the Asia-Pacific policy community expect the global economy to strengthen next year with 68 percent expecting somewhat or much weaker growth. Effectively this is a materialization of risks presaged last year when concerns were rising over the impact of protectionism. There are ongoing debates on whether the relatively strong growth in terms of both trade and aggregate demand over the past 12 months have been a result of



Source: PECC Survey on State of the Region (various years)

the surprisingly small impact of the trade war or 'front-loading' on the part of the business sector – stocking up before higher tariffs come into effect.

Next year APEC economies will reach the deadline of 2020 for the Bogor Goals of achieving 'free and open trade in the Asia-Pacific'. Amidst the somewhat gloomy outlook, the regional policy community had a rather more positive view towards growth in Southeast Asia, with 42 percent of respondents expecting stronger banks in India, New Zealand, Thailand, and the Philippines cut rates. Many of these were the first rate cuts since the emergency response to the Great Recession. Outside of the region, on 12 September, the European Central Bank announced that the interest rate on the deposit facility will be decreased by 10 basis points to -0.50% and that it will restart its quantitative easing program from 1 November.



Source: Date from IMF WEO October 2019 database, analysis by PECC International Secretariat

growth for the region next year. This reflects an expectation that at least some Southeast Asian economies will benefit from trade diversion as a result of the ongoing trade dispute between the US and China as well as continued strong domestic demand growth.¹

The Asia-Pacific region is expected to grow at 3.3 percent this year and perform at a similar rate over the coming years, based on the IMF's latest data release. The region's emerging economies are expected to grow by 5.2 percent this year, a marked deceleration from the 5.7 growth in 2017 before posting slightly improved growth of 5.3 percent in 2020. While the region's advanced economies are expected to grow by 2.0 percent in 2019 and continue that deceleration into 2020.

At this point last year, the forecast for Asia-Pacific growth in 2019 had been 3.7 percent, the downward revision of 0.4 percentage points comes as a result of the worsening of the trade conflict between the United States and China and the uncertainty that this brings to the business community. In response to this souring outlook, governments around the world are lowering interest rates. For example, on 22 July the US Federal Reserve announced that it would cut interest rates by 0.25 percentage points and once again by the same amount on 18 September. In August alone, central

An additional factor is the impact of higher energy prices on regional economies due to instability in the Middle East, as demonstrated by the spike in oil prices following the attack on Saudi Arabia's oil producing infrastructure. The attack removed about half of Saudi Arabia's productive capacity and caused a spike in global oil prices. The longer-term concern is if the capacity cannot be restored or compensated for quickly and if the region becomes more unstable, oil prices could reach US\$100 a barrel.²

How bad is it?

As seen in Figure 1.4, while expectations for global economic growth over the next year are negative, they tend towards 'somewhat weaker' growth. Overall, 60 percent of respondents expected growth for the global economy to be 'somewhat weaker' while 8 percent expected it be much weaker. The magnitude of that expected slowdown is difficult to gauge. According to the IMF's latest forecasts, the global economy grew by around 3.6 percent in 2018 and is expected to grow by 3.0 percent this year. Expectations are clearly that this negative trend will continue. There are several risk factors that support this negative prognosis. The trade conflict has already been mentioned, the risks as perceived by the Asia-Pacific policy community will be discussed below. Other recent factors include political risks in the Middle East and the



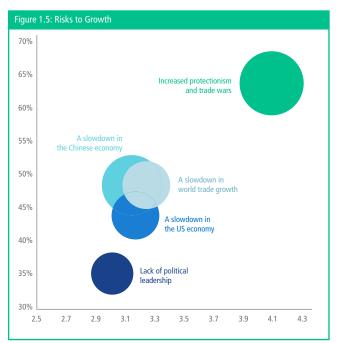


Source: PECC State of the Region Survey 2019

In summary, while the headline forecast for economic growth is far from a global recession, the policy community is expecting a slowdown and central banks are taking measures to forestall the worst outcomes. According to the IMF, without those stimulus measures, global growth would be 0.5 percentage points lower in 2019 and 2020.

Risks to Growth

The top five risks to growth identified by our survey of the Asia-



Source: PECC State of the Region Survey 2019

Pacific policy community for their economies over the next 2-3 years were:

- Increased protectionism and trade wars
- Slowdown in world trade growth
- A slowdown in the Chinese economy
- A slowdown in the US economy
- Lack of political leadership

Figure 1.5 shows three dimensions – the percentage of respondents who chose these issues as risks (vertical axis); the seriousness that those who selected it as a risk (horizontal axis); and the overall weighted risk – taking into account both the frequency and magnitude of the risk (size of bubble). While most risks tend to cluster – protectionism stood out in terms of the frequency and impact that respondents thought it would have on the prospects for the growth of their economies.

The list of risks remains the same as in the 2018, with one exception, a slowdown in the US economy has entered the top 5 list. In last year's survey, it was the 7th highest risk with 30 percent of respondents selecting it as a top risk, this year, 44 percent of respondents selected it as a top risk making it the 4th highest risk. The US economy has been going through its longest ever economic expansion overtaking the boom that lasted from 1991 to 2001 that ended with the bursting of the dot com bubble. The question is whether this business cycle is due for a correction.

A slowdown of China's economy has featured as a risk for a number of years. There are several factors behind this: one is the deep connections between China and regional economies. There used to be a saying that when the US sneezes, the rest of the world

a cold, due to the deep connections on regional value chains, it might now be said that when China sneezes, Asia catches a cold. A second key factor is that China's growth has been going through a slowdown from the heady days of 10 percent a year growth to a "new normal" growth of around 6 to 6.5 percent a year.



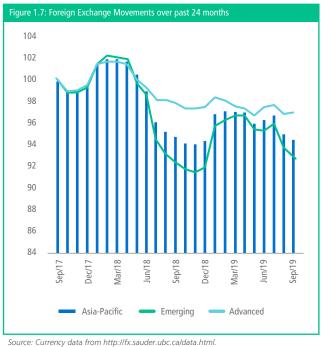
Source: IMF and Yahoo Finance

However, related to the slowdown in the major economies is the potential for spillover or contagion risks from top two risks in this year's survey - increased protectionism and trade wars and the slowdown in world trade growth – might have for world capital markets.

One metric that financial markets have been monitoring closely over the past 12 months has been the yield curve for fixed income instruments bonds. Simply put, in normal times, investors demand higher returns on longer term investments because of the risks involved with locking their funds up for that amount of time. Now investors have become so concerned over short terms risks that longer term investments have become 'safer' – so the yield curve have become inverted.

On October 9, 2007, the Dow Jones Industrial Average (DJI) hit its pre-recession high of 14,164 and by March 5, 2009, it had dropped more than 50% to a low 6,594.44. Figure 1.6 which indexes the price of gold and the DJI at the beginning of 2008, show the relative performance of gold and equity prices in the United States. Until October 2016, gold would have seemed a relatively good investment. However, since then the DJI has by far outpaced the performance of gold. But from mid-2019, the value of gold has jumped. In US\$ terms this was an increase in the price of gold from US\$1,413 per ounce to US\$1,499. This is another signal of economic uncertainty.

As last year's State of the Region report noted, regional currencies have been losing value against the US dollar. From August 2017 to August 2018, a composite of Asia-Pacific currencies weighted for trade had lost about 2.6 percent of value against the US dollar. As shown in Figure 1.7 by September this year, that devaluation had



Weighted for trade in goods and services, data from WTO

reached 5.5 percent over the 24-month period. Emerging economy currencies had lost more ground at 7.3 percent compared to the region's advanced economies which lost 3.1 percent. The larger concern for the region, given the backdrop of deteriorating trade relations is that economies seek competitive trade advantage through a devalued currency. Such moves, however, might prove counter-productive. Regional economies are deeply connected through supply chains, and a devalued currency may improve export competitiveness it will also raise the cost of imports for producers.

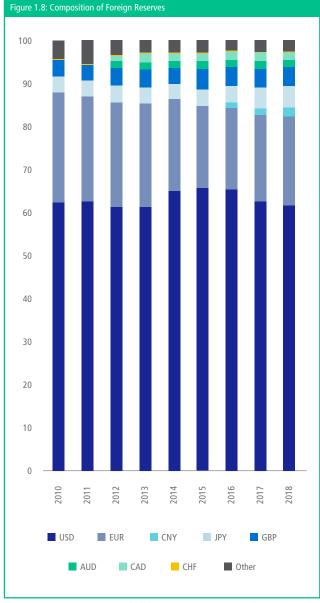
In August this year, the US Treasury took the unprecedented move of designating China as a currency manipulator.³ This is something that the People's Bank of China strenuously refutes, noting that the '*RMB exchange rate regime is a managed floating regime based* on market supply and demand and with reference to a basket of currencies.'⁴

The relationship between the global monetary and the trade regime has come into focus in recent months. At a gathering of Central Bankers at Jackson Hole in the United States, the governor of the Bank of England suggested that as the world has moved into a multipolar system, the reliance on the US dollar as the reserve currency also needed to change.⁵ As shown in Figure 1.8, the US dollar accounts for approximately 62 percent of global reserves but approximately 10 percent of global trade and 15 percent of total output.

¹²³

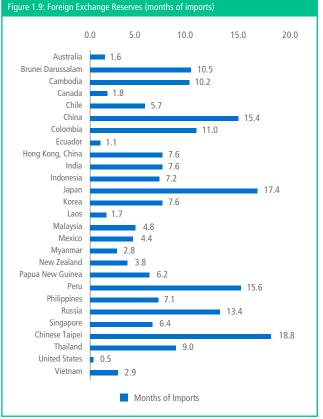
⁵ https://www.kansascityfed.org/~/media/files/publicat/sympos/2019/governor%20carney%20speech%20jackson%20hole.pdf?la=en

As an indication of the evolution of the monetary system, Figure 1.8 shows data from the IMF's Currency Composition of Official Foreign Exchange Reserves (COFER) Database. This database covers 149 members of the IMF who voluntarily disclose the composition of their foreign exchange reserves. The list is by no means comprehensive with only US. dollar, Euro, Yen, Pound Sterling, Swiss Franc, Australian Dollar, and Canadian dollars and Chinese RMB included. Since the RMB was included in this list, its share has risen from 1.1 percent of reserves to close to 2 percent. These allocations are by no means static, for example in the early 1990s considerably more reserves were held in Japanese Yen. Even US dollar reserve holdings have fluctuated over time, peaking at 71 percent at the turn of the millennium.



Source: IMF Currency Composition of Official Foreign Exchange Reserves (COFER) Database

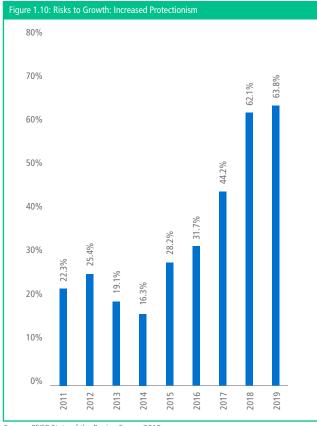
Such a transition would be extraordinarily complex. But it has happened before with the transition from the Sterling to the US dollar. The rationale that Mark Carney laid out was to alleviate the destructive cost on emerging economies of capital outflows and reduce the need to hoard large amounts of US dollar reserves. As shown in Figure 1.9, regional economies, especially Asian ones, tend to hold large amounts of reserves, well beyond the traditional 3 months of imports that used to be suggested as a benchmark. However, the IMF warns that traditional measures of reserve adequacy have limited relevance, *'the reserve losses that many economies experienced during crises did not show any relationship with needs. This reflects the fact that each crisis is unique and that the impact of crises vary greatly, resulting from withdrawal of foreign capital, while others involve the loss of export income, or capital flight by domestic residents.⁷⁶*

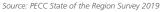


Source: PECC State of the Region Survey 2019

Impact of Rising Protectionism

As discussed earlier the top risk to growth in this year's survey was increased protectionism and trade wars. As shown in Figure 1.10, concerns over the impact of protectionism on economic growth have been steadily rising over the past few years. In the years that immediately followed the Global Financial Crisis roughly a fifth of respondents cited rising protectionism as a risk for their economies, however, this dropped over time perhaps in response to the continued statements by global leaders that they would not adopt trade restricting measures. However, from 2015 onwards,



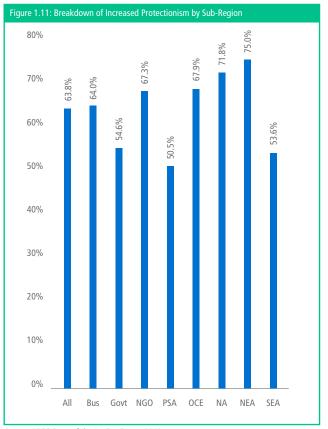


these fears increased rapidly until rising protectionism became the top risk to growth in 2018 where it remained this year.

Figure 1.11 shows the breakdown of the results by sector as well as sub-region. Of concern is that 10 percent more business respondents selected increased protectionism as a risk to growth for their economies compared to government officials. While recognizing that increased protectionism and trade wars was still the top risk to growth for government officials surveyed, it is possible that they underestimate the magnitude the impact it is having on businesses – critical given that they are dealing with this issue in organizations such as the WTO, APEC, and bilaterally. It is therefore crucial that businesses and governments engage in constructive dialogues to understand both how the trade conflict is impacting business sectors as well as the magnitude of that impact.

Secondly, there are significant differences among respondents in different sub-regions on the risk to growth from protectionism. Again, while emphasizing that this was still the top risk to growth for both Pacific South America and Southeast Asia, around 50 percent of respondents from these sub-regions selected it as a top 5 risk to growth for their economies compared to 70 percent from other sub-regions.

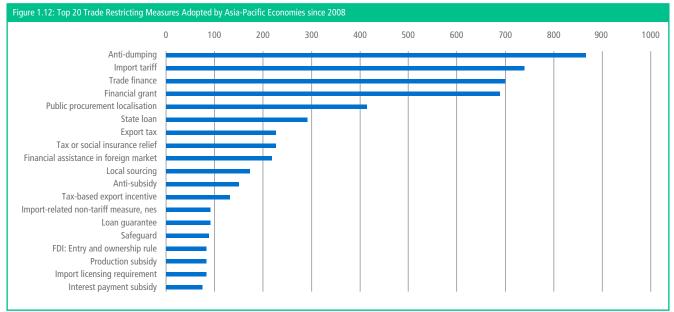
While much attention is given to the ongoing trade and technology "war," as shown in Figure 1.12, in spite of well-intentioned pledges



Source: PECC State of the Region Survey 2019

by G20 and APEC leaders, economies have been implementing a range of trade restricting measures since the Global Financial Crisis that used to be referred to as 'creeping protectionism.' Figure 1.12 shows the top 20 most frequently used trade restricting measures adopted by Asia-Pacific economies, according to data collected by the Global Trade Alert initiative.⁷ It is important to note here that this is not an official database. However, as G20 Leaders said in Pittsburgh in 2009, "We will keep markets open and free and reaffirm the commitments made in Washington and London: to refrain from raising barriers or imposing new barriers to investment or to trade in goods and services." This language was very similar to that of APEC leaders in Singapore later that year: "We firmly reject all forms of protectionism and reaffirm our commitment to keep markets open and refrain from raising new barriers to investment or to trade in goods and services, and instruct our Ministers to continue to regularly review our adherence to these commitments."

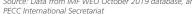
However, what constitutes a barrier to trade is always going to be a matter of perception and negotiation. Whichever data source is used, clearly the incidence of trade restricting measures is on the rise and these are having a material impact on trade flows in spite of well-intentioned and carefully crafted leaders' statements. This separation of rhetoric and practice breeds cynicism and undermines the value of multilateral meetings and leaders' declarations in the public mind.



Source: Global Trade Alert

Moreover, with what were thought as the rules being progressively circumvented, there is a rising element of uncertainty. For example, analysis undertaken by the Atlanta Federal Reserve estimates that the tariff hikes and trade policy tensions lowered gross investment in 2018 by 1.2 percent in the U.S. private sector and by 4.2 percent in the manufacturing sector or \$32.5 billion \$22 billion respectively. For 2019 the same work estimates that these numbers are rising, among firms reassessing expenditures, more than half have either postponed or dropped some portion of their capital spending for 2019.⁸ Another example comes from outside the region, since a referendum on 2016, United Kingdom has been negotiating the terms of its exit from the European Union. The original deadline has been postponed twice and may be again. It is estimated that





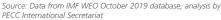
this uncertainty has reduced business investment in the United Kingdom by 11 percent from 2016 to 2019.

The External Sector

As shown in Figure 1.13, export growth for Asia-Pacific economies is expected to slow significantly from 4.0 percent to just 0.9 percent before recovering to 3.0 percent in 2020. This drop is largely driven by negative export growth for the region's advanced economies – especially those with deep value-chain connections: Japan; Korea; Chinese Taipei; and Singapore.

As per Figure 1.14, import growth is expected to slow even more sharply this year from 5.2 percent growth in 2018 to almost zero





8 Tariff Worries and U.S. Business Investment, Take Two, https://macroblog.typepad.com/macroblog/2019/02/tariff-worries-and-us-business-investment-take-two.html

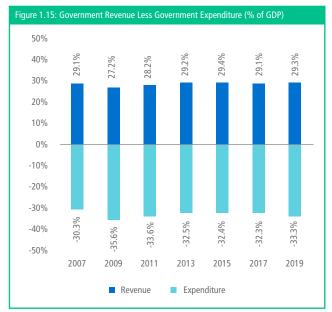
growth this year before recovering to 3.2 percent growth in 2020. Unlike on the export side, emerging economy imports are not expected to hold up this year. Some of this may be due to some lag effects along regional value chains.

Clearly trade growth is a long way off from the heady rates of the 1990s and 2000s when it was growing at twice the rate of overall GDP. There is some expectation that trade growth will bounce back somewhat in 2020, this depends much on the overall environment for trade and whether there are spillovers of the trade conflict into other sectors of the economy. As mentioned earlier, PECC's annual survey indicates some optimism for Southeast Asian economies. Vietnam exports are expected to continue to perform particularly strongly with growth at above 12 percent. Earlier forecasts had predicted other Southeast Asian economies on similar growth trajectories, however, while they are still performing well, there has been some moderation of expectations for the Philippines and Indonesia on the export side. (based on IMF forecasts, see Annex A for details).

Need for Forward Policy Momentum

At this time of uncertainty, regional economies may be pursuing as many different growth vehicles as they can. Some have made steps with agreements such as the Comprehensive and Progressive Partnership for Transpacific Partnership (CPTPP). The CPTPP entered into force at the end of last year and has proven a useful advantage for its members allowing them to attract investors looking to diversify or relocate supply chain production into parts of the region not affected by new tariffs.

If regional economies were able to come to agreement on the Regional Comprehensive Economic Partnership (RCEP) it would provide a significant boost to its members. As discussed below, the business community around the world has large reserves of cash but has been wary of investing. Reducing policy uncertainty



Source: Data from IMF WEO April 2019 database, analysis by PECC International Secretariat

through a long-term project such as the RCEP would be one way to attract those investments.

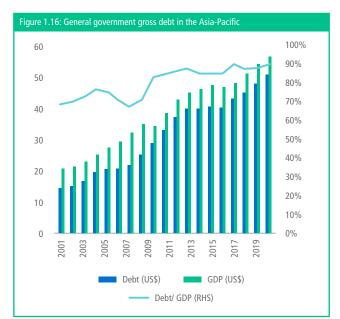
As mentioned above, the US and Japan came to a relatively quick agreement to a trade deal that addresses some of the trade diversion that the US farm sector suffered as a result of the US withdrawal from the TPP, while the Japan-EU FTA entered into force in February this year. These are systemically important deals covering large percentages of the global economy. As negative as the current outlook is, the configuration of the political economy does leave some hope that an interim deal could be struck between the US and China.

Lack of Political Leadership

Once again, the lack of political leadership was identified as a top 5 risk to growth. As harsh as the impact of the Global Financial Crisis was, the world narrowly escaped a much worse fate through a set of concerted actions, primarily coordinated through the G20. The Pittsburgh Declaration summarized the mood well "Global output was contracting at pace not seen since the 1930s. Trade was plummeting. Jobs were disappearing rapidly. Our people worried that the world was on the edge of a depression." To prevent that from happening the international community came together and made "commitments to restore growth resulted in the largest and most coordinated fiscal and monetary stimulus ever undertaken." At the same time G20 leaders also recognized the importance of an orderly exit from the stimulus stance and the need to "make decisive progress on structural reforms that foster private demand and strengthen long-run growth potential."

This was further reinforced by APEC leaders when they met in Singapore who agreed to "re-energize APEC's work on structural reform, building on the Leaders' Agenda to Implement Structural Reform".

As shown in Figure 1.15 in 2009, governments in the Asia-Pacific increased expenditure from 32.2 percent of GDP to 35.6 percent.



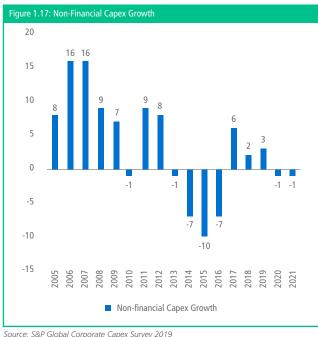
Source: Data from IMF WEO April 2019 database, analysis by PECC International Secretariat

At the same time, government revenues decreased from 29 percent of GDP to 27.2 percent – running substantial fiscal deficits. Over the past decade there has been some restoration of fiscal space, today government expenditure is around 33.3 percent of total GDP and revenue at 29.3 percent. However, in the years since the recovery got underway, only 14 of the economies included here have run fiscal surpluses for at least one of the years, and only 3 have run surpluses for all of them. While the recovery has been underway for a sustained period, public balance sheets in many instances are weaker than they were before 2008. As shown in Figure 1.16, public debt levels have been increasing over the past decade, with gross government debt has increasing from 70 to 90 percent of GDP.

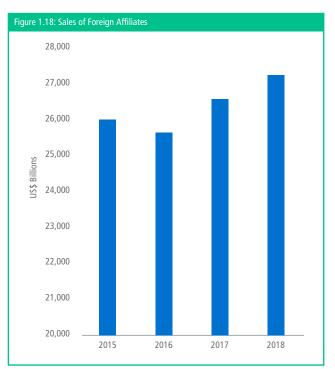
According to estimates by the Institute of International Finance (IIF), global debt levels now stand at around \$246.5 trillion, almost 320% of global economic output.⁹ The non-financial corporate and government sectors have seen the biggest rise in debt levels since 2007. While the IIF notes that while corporates overall in the United States have significant cash reserves to service their debt, smaller to mid-size firms are in a weaker position.

Complementary Measures to Stalling Growth

However, a troubling characteristic of the post-GFC period has been an inability to move out of the stimulus stance. Growth in the post Global Financial Crisis period has been supported by massive injections of liquidity into the financial system. In turn, this should feed into the real economy through capital expenditure with the creation of jobs and new productive capacity. While the US economy has been going through an its longest expansion in history, some argue that it has been a surprisingly weak recovery with GDP per capita income growing by only 1.5 percent a year over the past 10 years compared to 3.3 percent in previous expansions.¹⁰



Source: S&P Global Corporate Capex Survey 2019



Source: UNCTAD World Investment Report 2019

This year's G20 Finance and Central Bank Governors Communique highlighted the need for carefully calibrated macroeconomic and structural policies so address excessive imbalances and mitigate the risks to achieving the G20 goal of strong, sustainable, balanced and inclusive growth. They also highlighted excessive corporate savings as a concern – pointing to miscalibrated fiscal policies, and barriers to trade in goods and services. While there are clear and present challenges to the immediate outlook that may necessitate fiscal and/ or monetary stimulus depending on individual circumstances, the critical point is that structural reforms remain desperately needed. These require a level of political leadership not now evident.

As pointed out by G20 Finance Ministers and Central Bank Governors, there is significant money in the corporate sector or as they put it 'excessive saving', however, capital expenditure remains disappointing. As shown in Figure 1.17, after successive years of decline, capital expenditure finally picked up in 2017, however, that growth slowed to 2 percent in 2018. While expectations are for growth of 3 percent this year, it is expected to contract once again in 2020 and 2021. As the Global Corporate Capex Survey 2019 puts it "the broader reality is that corporate capex has been a perennial disappointment in this economic cycle, and all the more so given large and sustained monetary stimulus, cuts in corporate taxation, and plentiful balance sheet cash."

Detailed analysis of this phenomenon in an IMF Working Paper finds that this is not limited to any one economy, and is "driven by increased ability of large, publicly listed firms across advanced economies to extract larger profits and expand in size over time while limiting payouts to shareholders and taxes." Supporting the

9 IIF Quarterly Global Debt Monitor: High and Rising Debt Levels:

¹⁰ Should we worry? https://www.iif.com/Portals/0/Files/content/GDM_July2019_vf3.pdf https://www.economist.com/graphic-detail/2019/07/02/americas-economic-expansion-is-now-the-longest-on-record

conclusion on the nature of growth since at least 2008, "such sustained gains in profitability have not spurred higher investment in new fixed capital, leaving firms instead with growing stocks of liquid assets on their balance sheets."

These firm level phenomena are also found to have a strong influence on various aggregate structural trends such as the decline in labor income shares, declining investment and productivity growth. This indicates misalignments in incentives that encourage this behavior. For example, evidence suggests that firms with large holdings in cash reserves also saw the largest gains in profitability, market valuation and R&D spending. They also limited dividend payouts in favor of share buybacks, reduced leverage and managed to reduce their effective tax rates. The evidence therefore points at a number of potential causes for rising corporate saving to be explored - with technology, globalization, governance and tax management strategies likely all playing a role.¹¹

Part of those tax management strategies are related to how and when firms generate income in overseas markets – taxes are only paid when those earning are repatriated. Moody's estimates that the cash reserves of the US corporate sector at \$1.69 trillion at the end of December 2018, down 15.2% from a record peak of \$1.99 trillion a year earlier. This largely came as a result of the capital expenditures of around US\$851 billion, dividend payments of US\$412 billion, share buybacks of \$467 billion and acquisitions of US\$405 billion. However, this may well be a one-off as a result of the US tax reforms in 2017. These numbers relate to the US corporate sector, but the changed structure of firms is a global phenomenon, UNCTAD estimates that the global sales of foreign affiliates were around US\$27 trillion in 2018 as shown in Figure 1.18.

While government stimulus measures are understandable under the current circumstances, it would be a lost opportunity to not consider how to improve the 'quality' of growth through significant structural reforms. Such reforms might seek to remove incentives for firms to hold such large reserves of cash and incentivize early capital expenditures over share buybacks as well as improving corporate governance.

APEC's focus on quality growth and structural reform has continued through the post GFC period with the adoption of the APEC Leaders' Growth Strategy in 2010. These were then reinstated after they expired with the APEC Strategy for Strengthening Quality Growth as well as the Renewed APEC Agenda on Structural Reform (RAASR). The latest iterations will be assessed in 2020 which provides an ideal opportunity for serious reflection on whether the current modalities are helping regional economies to meet their goals and what more can be done given the changing context as well as the severity of the challenges that lie ahead.

Under its 2015 Renewed APEC Agenda for Structural Reform member economies developed individual action plans setting out

their own priorities through to 2020 to reduce inequality and stimulate growth in their economies, and contribute to APEC's overarching goal to promote balanced, inclusive, sustainable, innovative and secure growth, through measures in line with the following pillars:

- 1. more open, well-functioning, transparent and competitive markets;
- deeper participation in those markets by all segments of society, including MSMEs, women, youth, older workers and people with disabilities;
- 3. sustainable social policies that promote the above-mentioned objectives, enhance economic resiliency, and are well-targeted, effective and non discriminatory.

This modality reflects APEC's tried and tested formula of 'individual action plans' that characterized its partial success in trade and investment liberalization and facilitation in its early phase of development. However, that approach also included collective actions plans. In considering the next phase of its work on structural reform APEC might consider structural reform programs to be undertaken by other APEC for a. For example, APEC's Economic Committee has been working with the APEC Finance Ministers process on a number of issues as well as with the Human Resources Development Working Group. However, these iterative activities would benefit from clear guidance and a strategic plan of action. Moreover, a more pertinent question is whether and how APEC economies might work together to reduce the structural risks emerging in the regional and global economy described in this report.

Revisiting the APEC Growth Strategy

While much attention has been paid to the ongoing trade conflict, significant changes have been taking place to the economic structure both within and between regional economies.

In 2009, the Pacific Economic Cooperation Council (PECC) established a task force to 'assess the region's progress in fighting recession, rebalancing economic structures, and managing sustained recovering...[and to] anticipate the critical policy changes that will be required in the Asia-Pacific to move from crisis management to stable growth.' The task force's recommendations came after the recovery from the 2008-2009 crisis was already underway but incomplete. It called for structural reforms that change economic relationships both within and among economies. Over the 10-year period, PECC has continued to track change on what has become known as the growth strategy.

Figures 1.18 to Figure 1.22 show the changes in the structures of regional economies since immediately before the pre-Global Financial Crisis period (2007). Some immediate trends stand out. The first, as already noted above is the general increase in government expenditure that has characterized growth in many regional economies in the post Global Financial Crisis period.

STATE OF THE REGION 2019-2020

8%

6.3%

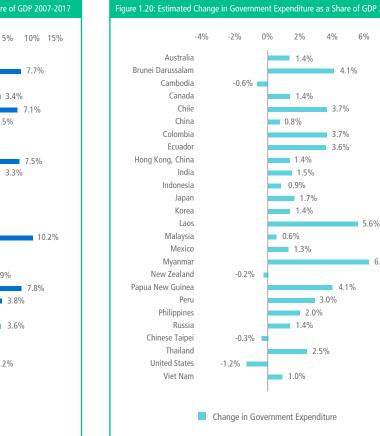
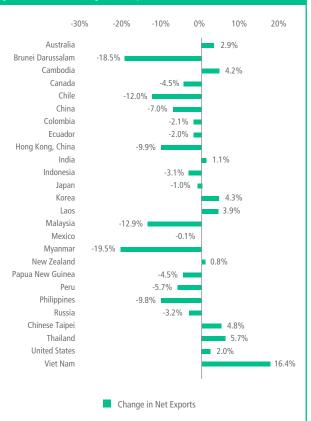


Figure 1.22: Estimated Change in Net Exports as a Share of GDP 2007-2017



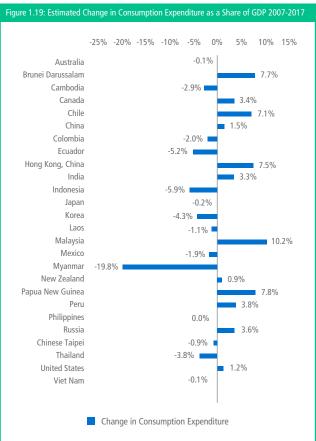
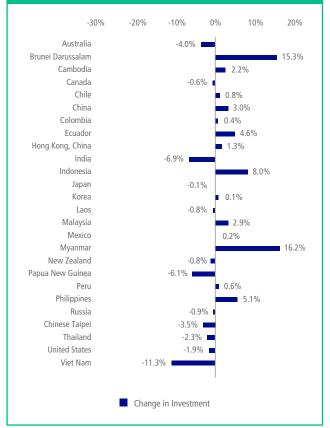


Figure 1.21: Estimated Change in Investment as a Share of GDP 2007-2017



Source: https://unstats.un.org/ and https://eng.stat.gov.tw/; World Bank World Development Indicators

Secondly, with one or two notable exceptions, the extent to which net exports have not been as big a driver of growth for regional economies as they were prior to the crisis. Thirdly, the extent to which domestic demand, consumption or investment expenditure has been driving growth in the region.

In summary, there are significant changes to the internal structure of economies that in turn has impact balances among regional economies. As shown in Figure 1.23, the current account balance between the region's emerging and advanced economies has narrowed considerably. In 2006 when they were at their peak, the region's emerging economies were running current account surpluses equivalent to 5.1 percent of GDP and the region's advanced economies 2.6 percent. Since then they have narrowed to 0.2 percent and 0.6 percent respectively.

The change in consumption patterns is deeply related to one of the underlying structural features of the region - high savings rates among Asian economies. While both Japan and the United States are considered as high-income advanced economies, Japan's gross national savings averaged 29 percent of GDP over the past guarter of a century while the United States has been at 18 percent. At the same time, Japan's investment to GDP ratio has been around 27 percent while the US has been at 21 percent. Further work done by PECC in the aftermath of the Global Financial Crisis looked at consumption and savings trends across the world and their likely trajectory into the future.¹² It argued that private consumption growth is determined by trends in GDP growth, household income growth, household saving rates, and household wealth but that the relative importance of these factors differs greatly from economy to economy. However, as far as savings rates are concerned, the main determinants of the domestic saving rate in developing Asia are the age structure of the population (especially the aged dependency ratio), income levels, and the level of financial development. It noted that public expenditures on social services including spending on pensions as well as education and health services have generally been low in developing Asia, averaging less than 5% of gross national disposable income, far lower than in OECD economies which averaged around 15% of GDP on social services and pensions.

While the econometric analysis suggests that improving social safety nets alone will not necessarily reduce saving rates and stimulate consumption, doing so is desirable to obviate the need for people to worry about unexpected contingencies, thereby enhancing household welfare and putting household income to more productive use - in short, improving people's quality of life.

APEC continues to promote inclusive growth through multiple avenues including promoting universal health care. At the first United Nations High-Level Meeting (UNHLM) on Universal Health Coverage (UHC), the APEC Health Working Group issued a statement on universal health care.

This idea of 'transpacific imbalances' has long been a concern of this report and the broader Pacific Economic Cooperation Council. In 2005, this report's predecessor had warned that "the region continues to be characterized by an acute imbalance in trade and financial flows" and that "there is a growing risk of conflict between Washington and Asian trading partners."13

Given the general lack of attention to the domestic dimensions to imbalances, it needs to be reiterated that "current account imbalances reflect private economic decisions to save and invest and are no economic problem in themselves... however, from past experience, risk generating negative political reactions in deficit economies."14 This was an issue that the PECC discussed at great lengths especially in the lead up to the Global Financial Crisis. At its General Meeting in 2006, in considering whether the imbalances were 'a disaster in the making' several important points arose:

- The problem is in the structural policy fields, competitiveness market field, openness market field, regional market field, and labor market field;
- Focusing only on one dimension will prejudice our recommendations;
- What is needed is simultaneous and coordinated policy adjustments;
- The focus should be on policy cooperation instead of policy coordination because you cannot deliver coordination. Policy cooperation means that there is a dialogue in the right fora, and that there is greater understanding of each other; and policy changes in individual economies should reinforce each other
- The root of the problem lies in the international financial architecture.15

While re-emphasizing that imbalances are far from the levels they had been in 2006, those earlier warnings had not been heeded and the world went through a devastating crisis. These recommendations are essential as part of a grand bargain to avoid further escalation in the trade conflict. Moreover, looking further ahead to forecasts for 2020-21, there is an expectation that the region's emerging economies will run balanced or current account deficits. These reflect important structural changes within economies - changes to investment-savings balances at the household, government and corporate levels.

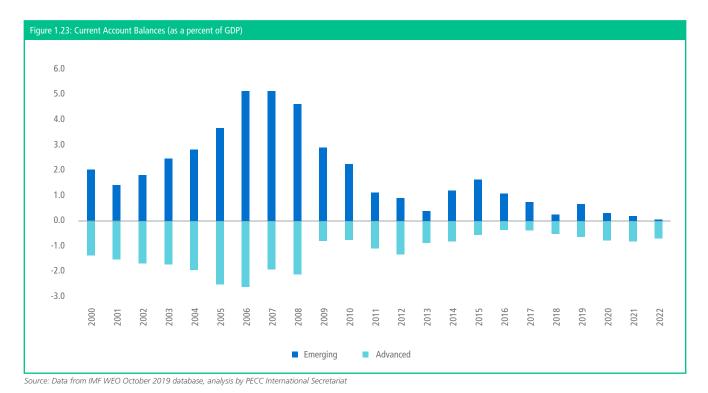
The change is also seen for individual economies in the region. Whether economies had been running current account deficits or surplus in the pre-Global Financial Crisis period there have been significant changes as shown in Figure 1.24 below, and most of these changes have reduced the imbalances as a percent of GDP. Indeed, some economies that had been previously been running current account surpluses are in 2007 were expected to run deficits this year and vice-versa.

¹⁵ PECC General Meeting 2005, Plenary Session IV: The Trans-Pacific Imbalance: a Disaster in the Making?, Wendy Dobson, Professor, University of Toronto; Fred Bergsten, Director, Institute for International Economics; Park Yung Chul, Professor, Graduate School of International Studies, Seoul National University; Edward K.Y. Chen, President, Lingnan University; Jacob Frenkel, Vice Chairman, American International Group, Inc.



¹² Charles Yuji Horioka, The Determinants of Saving Rates in the Developed and Developing Economies: The Impact of Social Safety Nets http://www2.jiia.or.jp/en/pecc/2010/SRpdf/101021_4.pdf and Recent Trends in Consumption in Japan and the Other G7 Countries http://www2.jiia.or.jp/pecc/2011/SRpdf/SR_Report_2011.pdf 13 Yuen Pau Woo, Pacific Economic Outlook, Pacific Economic Cooperation Council, 2005

⁴ Ross Garnaut, Pacific Economic Outlook, Pacific Economic Cooperation Council, 2001

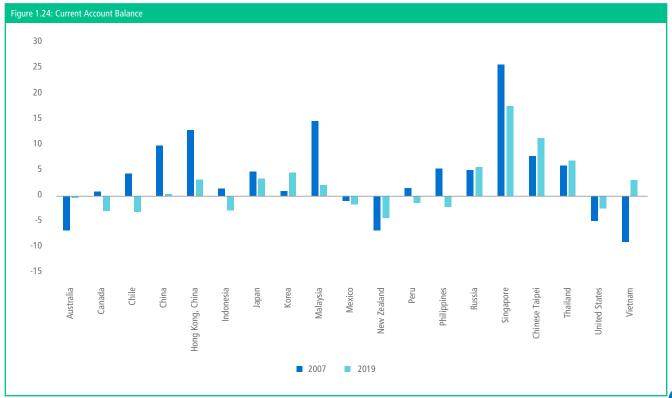


Sustainable Growth

As part of the APEC Growth Strategy adopted in 2010, APEC economies agreed to 'seek growth compatible with global efforts for protection of the environment and transition to green economies.' Part of the that work included the assessment of the potential for reducing the energy intensity of economic output in APEC economies between 2005 and 2030, beyond the 25 percent

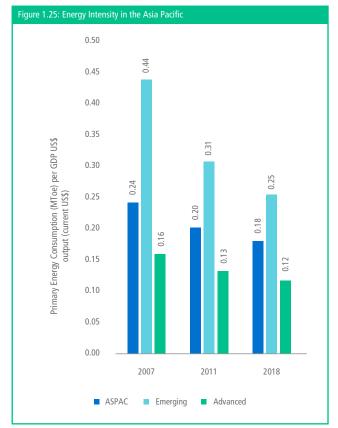
aspirational goal already agreed to by the APEC Leaders in 2007. In 2011, they agreed to further reduce APEC's aggregate energy intensity by 45 percent by 2035 and in 2014 agreed to double the share of renewables in the APEC energy mix by 2030.

In 2007 when APEC leaders originally set their target, the energy intensity for the region as a whole was 0.24 million tons of oil



equivalent for every US\$1 billion of GDP output. By 2011, when the target was revised this had already dropped to 0.20 MTOE, by 2018, this was expected to further drop to 0.18 MTOE or a reduction of 26 percent. These improvements are coming from both emerging and advanced economies, with advanced economies improving energy intensity by 25 percent and emerging economies by close to 42 percent.

While not addressing the issue of climate change and carbon dioxide emissions directly, in its 2012 World Energy Outlook, the International Energy Agency (IEA) argued that a reduction in



Source: IMF WEO for GDP data and BP World Statistical Review for Primary Energy Consumption

global carbon dioxide (CO2) emissions from the business-as-usual path is likely to be driven largely by energy-efficiency measures. In their projections, the IEA forecasts that by 2035, energy efficiency policies will account for around 70 percent of the reduction in CO2 emissions and thus will have a much more significant effect than either renewables or nuclear energy.¹⁶

In 2014, when APEC leaders made their commitment to double the share of renewables in their energy mix, as shown in Figure 1.25 approximately 1.9 percent came from renewable sources. By this year, this had increased to 3.7 percent. As with the goal for energy intensity, after a thorough review of commitments made under the Paris Agreement and elsewhere, APEC may want to review and step up its commitments.

Any global effort to address climate change will require the successful engagement of all the economies that participate in APEC. As has become mantra, its 21 member economies are home to around 2.8 billion people and represent approximately 59 per cent of world GDP and 49 per cent of world trade in 2015. According to the APEC website, its membership accounts for 60 percent of global energy demand and includes four of the world's five largest energy users.

Figure 1.26: Sources of Energy Use in the Asia-Pacific 1.9% 100% 3.7% 90% 80% 70% 60% 50% 20.4% 40% 30% 20% 31.2% 29.6% 10% 0% 2014 2018 Oil Natural Gas Coal Nuclear energy Hydro electric Renewables

While climate change did not make it to the list of top 5 priorities for APEC leaders to discuss at their meeting in Santiago (see

Source: IMF WEO for GDP data and BP World Statistical Review for Primary Energy Consumption

below), a growing share of the regional policy community has been selecting climate change as an issue for APEC leaders to discuss over the years. From a high of 41 percent in 2007 when the group made its commitment to reduce energy intensity at their Sydney meeting, climate change had fallen as an APEC priority, aside from a small peak in 2015 when the Paris Conference of the Parties was ongoing. But this may not reflect the importance of the issue, but because APEC is not regarded as the most appropriate vehicle for such discussions. In fact, however, achieving climate goals and setting a robust and environmentally sustainable growth path is key and critical to Asia-Pacific economic cooperation.

As has been discussed elsewhere in this report, growth in the post-Global Financial Crisis era has largely been supported by

extraordinary stimulus measures. Funds channeled through the financial system – with the hope that these will reach the real economy. According to the United Nations Framework Convention on Climate Change Standing Committee on Finance estimated global total climate-related finance flows at around USD 456–681 billion in 2016 or an increase of 17 per cent over previous years.¹⁷ This seems painfully limited given current needs. For example, annual global investment in electricity for example averaged US\$712 billion annually from 2007-2015. Moreover, to meet Sustainable Development Goal 7 to *"Ensure access to affordable, reliable, sustainable and modern energy for all"*, Asia alone requires over US\$10 trillion in investment in electricity from 2016 to 2030.¹⁸

As discussed in Chapter 2, there is less a question of whether APEC members should address climate change issues but rather how. As an organization primarily concerned about trade and economic cooperation, moreover there are risks that APEC merely duplicate work that is already being done by other organizations nor is it well suited to address. APEC for its part has contributed usefully, for example in reaching agreement on environmental goods. Such efforts are critical to reduce the cost of more environmentally efficient products. It also has an ongoing Environmental Services Action Plan. These complement rather than duplicate efforts ongoing elsewhere. However, APEC will at least be under pressure from stakeholders to do more.

of uncertainty over the economic outlook and tension among APEC members. Even as APEC celebrates the 30th anniversary of its foundation, some of the fundamental principles that have underpinned APEC's work for three decades are being questioned. These are however, the very challenges that APEC was created to address. In setting out his rationale for its creation, late Australian Prime Minister Bob Hawke said that "serious cracks are appearing in the international trading system which have major implications for the future health of both our region and the world economy:

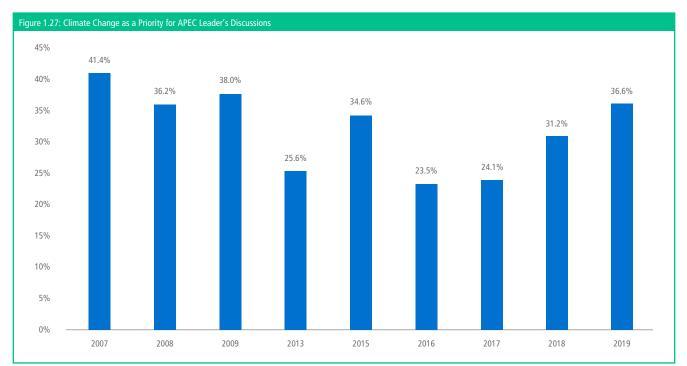
- bilateral trade pressures associated with the significant trade imbalances between a number of regional countries and the United States;
- a trend towards the formation of bilateral or regional trading arrangements which run the risk of undermining a truly multilateral trading system; and
- there are fundamental tensions within the GATT framework of multilateral trade, of which the recent Montreal deadlock is but the latest manifestation."

A few minor word changes to those paragraphs and those cracks could well describe the situation today. The system did not break, and APEC played a fundamental and often underappreciated role in filling in those cracks. Out of a list of 15 possible priorities, the top 5 selected by the regional policy community for discussion by APEC leaders when they meet in Santiago were:

The China-US trade conflict and rising trade tensions

Priorities for APEC Leaders

When APEC leaders meet in Santiago they do so against a backdrop



Source: PECC Survey on the State of the Region (various years), different language has been used on 'climate change' as a priority option for APEC Leaders' discussions in the survey: 2007-2008: climate change; 2009: climate change and the Copenhagen Deal; 2013: a green growth strategy for the region; 2015-2016: climate change cooperation and disaster resilience; 2017-2019: climate change cooperation.

¹⁷ https://unfccc.int/sites/default/files/resource/Climate_Action_Support_Trends_2019.pdf 18 https://outlook.gihub.org/

- The future of the WTO and multilateral trading system
- The emergence of anti-globalization & anti-trade sentiments
- Progress towards the Bogor Goals and the Free Trade Area of the Asia-Pacific (FTAAP)

• Progress on the APEC growth strategy to promote balanced, inclusive, sustainable, innovative and secure growth

It is clear that PECC survey respondents would like the leaders to almost exclusively focus on how to overcome current trade tensions, how to address anti-globalization sentiments within the public, and how to both reform and strengthen the broader WTO system as well as promote freer trade at the regional level.

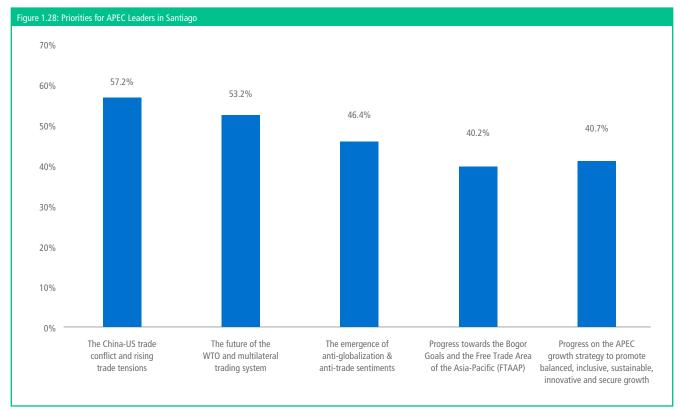
It is clear that the regional policy community believes that APEC could and should play a constructive role in resolving some of the fundamental challenges facing the global economy today. APEC's unique focus on cooperation that avoids legalistic formal settings should be harnessed to its maximum potential allowing for constructive dialogue at all levels of government. One issue that is reaching a critical point is the status of the WTO's Appellate Body. As discussed in last year's report, by December this year, the terms of 2 of the 3 remaining Appellate Body members will have completed their terms. This leaves the WTO Dispute Settlement process vulnerable to collapse. One interim solution is for economies to simply agree to abide by the decision reached by the Panel – as Indonesia and Vietnam have done in one case.¹⁹ The longer discussion seems to rest on three critical issues:

- how to improve the efficiency of the dispute settlement process
- how to update trade rules
- how to improve the monitoring function

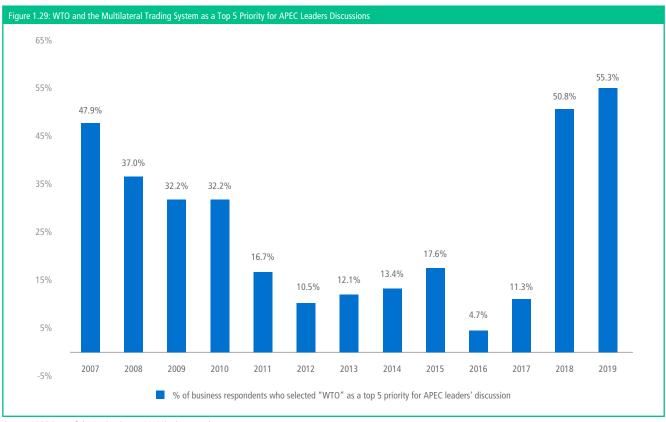
There are other ongoing processes to try to break the deadlock in the rules making function of the WTO through various plurilateral initiatives such as the Joint Statement Initiative on E-commerce. APEC could play a fundamentally important role in this with its well-developed institutional processes to support such work even if not all APEC members are ready to join such initiatives.

As shown in Figure 1.29, the regional business community did not consider the WTO and multilateral trading system a priority for APEC leaders' discussions for many years. From a high of 48 percent of respondents in 2007, the percentage of business respondents who thought that APEC leaders should discuss the WTO had dropped to just 5 percent in 2016. However, the willingness of the US to ignore long-held understanding of rules and unilaterally and selectively apply tariffs have seen the percentage of business respondents rise from 5 percent in 2016, to 51 percent last year to 55 percent his year.

In reflecting on the Bretton Woods Institutions at 75, Dr Mari Pangestu, former Indonesian Minister of Trade, argued for a topdown and bottom-up approach to ensuring that the WTO was fitfor-purpose in the 21st century. Top down input would come from leader level processes such as the G20 and APEC, while bottom-



Source: PECC State of the Region Survey 2019



Source: PECC State of the Region Survey 2019 (various years)

up come from the working groups in the G20 that already feed into the WTO process as well as complementary processes such as the mega-regionals that are already negotiating many of the new issues.

APEC could play a fundamental role in this process. It already has a head start in doing so. In 2015 APEC formally established the Information Sharing Mechanism on Regional Trade Agreements (RTAs)/Free Trade Agreements (FTAs) which allow APEC members to engage in a regular dialogue on the WTO Plus Elements of concluded agreements. While this mechanism was established as part of efforts to work towards an eventual Free Trade Area of the Asia-Pacific one of its stated purposes is to "support the multilateral trading system and WTO by promoting and encouraging, through information exchange and active participation in the WTO RTA Transparency Mechanism, high quality comprehensive FTAs that serve as building blocks for broader regional and multilateral trade liberalization."

While the overall prognosis for economic growth of this report is negative and it is clear that the Asia-Pacific policy community is deeply concerned about future trajectory of the regional and global economies and the system of norms, rules, and institutions that undergird international trade, there is some reason for guarded optimism. The swift conclusion of the US-Japan trade agreement shows that there is still forward momentum on trade liberalization. Indeed, it is all too easy to forget that Japan now has bilateral trade agreements with both the US and the EU, which combined account for 52 percent of the global economy. More importantly, such deals also provide momentum to other agreements. For the Asia-Pacific, the Regional Comprehensive Economic Partnership (RCEP) has yet to be concluded. It has long been considered a pathway to an eventual Free Trade Area of the Asia-Pacific along with the CPTPP. There are other building blocks in this. Chile, as this year's host of APEC is a member of both the CPTPP as well as the Pacific Alliance. The Pacific Alliance has held ambitions to be more than a trade agreement among a handful of neighbors. They are negotiating associate membership with Australia, New Zealand and Singapore. There have long been thoughts of the Pacific Alliance negotiating an eventual agreement with ASEAN.

As important as these regional deals are to removing barriers to trade and leveling the playing field, especially for small businesses, APEC can play a fundamental role in bringing the lessons learnt in these processes back to the multilateral table. A world fragmented into different blocks will be costly for consumers and businesses alike and draws a line down the middle of the Pacific. The world lacks the intellectual and political leadership that was evident when the Bretton Woods institutions were created. These established a system that allowed for others to rise. They are not without their weaknesses. Voting rights and monopoly of leadership positions are obvious examples. However, they established clear rules of the road for participants to follow. At a time when the economies are more interconnected than ever through digital technologies and facing common existential threats such as pandemics and frequent and harsher natural disasters, the governance systems that facilitate coordinated responses need to be strengthened not weakened. There is a grave risk of a fallacy of composition - this makes processes like APEC more valuable than ever because of its informal nature - however, as discussed in the following chapter, this needs to be strengthened if it is to be truly effective.



CHAPTER APEC BEYOND 2020: WHAT LIES AHEAD? CONTRIBUTED BY STEVEN WONG & EDUARDO PEDROSA*

As APEC approaches 2020, relations among key member economies are marked by a degree of suspicion and hostility not seen in over half a century. To be sure, periods before this, even after APEC's establishment in 1989, were not free of disputes. Disagreements, however, were managed and not escalated to full-on conflicts, and certainly did not take center stage at APEC Leaders' Meetings.

These conflicts come at a critical juncture for the world economy. After a slow multi-year recovery from the 2008 Global Financial Crisis, the green shoots of economic growth are now being weighed down by unprecedented policy risks and uncertainties. The multilateral rules-based trading system is also being further degraded in fundamental ways. Equally significant issues of inclusiveness, environmental sustainability and the onset of the digital and technological revolution are rising to the fore.

The overarching question that APEC now faces is how it can and should address them. Casting an APEC Post 2020 Vision was always going to be challenging, but recent developments may well be rendering it an impossible zero-sum exercise. APEC was established on the basis that positive-sum cooperation was essential to sustain the region's economic dynamism and progress. The 1994 APEC Bogor Leaders' Declaration summarized APEC's Vision in the following manner:

"A year ago on Blake Island in Seattle, USA, we recognized that our diverse economies are becoming more interdependent and are moving toward a community of Asia-Pacific economies. We have issued a vision statement in which we pledged:

• to find cooperative solutions to the challenges of our rapidly changing regional and global economy;

• to support an expanding world economy and an open multilateral trading system;

• to continue to reduce barriers to trade and investment to enable goods, services and capital to flow freely among our economies;

• to ensure that our people share the benefits of economic growth, improve education and training, link our economies through advances in telecommunications and transportation, and use our resources sustainably."

A year later, in 1995, they adopted the Osaka Action Agenda. Both the Vision and Agenda provided the raison d'etre for APEC's approach and work. Today, the goals of cooperation, openness, removal of barriers and shared benefits as the primary means for achieving domestic goals are being set aside at an alarming pace.

APEC provides a platform for leaders, ministers, senior officials, and stakeholders to work together on forward-looking approaches to economic issues in a spirit of mutual respect. Its norms are based on openness, voluntarism, consensus-building, concerted actions along with a commitment to economic and technical cooperation and support for the multilateral system. These position APEC well as a dialogue mechanism.

As a precursor to APEC, the Pacific Economic Cooperation Council (PECC) remains committed to regional cooperation at the highest and deepest levels. Its assets include long understanding of the benefits and limits of regional cooperation, and the ability to provide frank assessments and inputs. In 2016, the PECC Standing Committee agreed on the APEC Post-2020 Vision as a signature project and convened a Task Force to carry it out. The Task Force carried out a survey of member committees with almost 300 responses and then developed a carefully worded Vision document that was adopted and shared among its members and other groups working on this issue. The PECC's APEC Post 2020 Vision is the following:

"An Asia-Pacific community of openly interconnected, and innovative economies cooperating to deliver opportunity, prosperity and a sustainable future to all their peoples."

This will be achieved by:

• Robust dialogue, stakeholder engagement, and effective cooperation that build trust and committed, confident relationships among member economies;

• Strategies and initiatives to remove barriers to full economic participation by all segments of society, including women, and people living in poverty, MSMEs, and remote and rural and indigenous communities;

• Committed long term policy initiatives that promote sustainability;

^{*}Dato' Steven C.M. Wong served as the Deputy Chief Executive and Member of the Board of the Institute of Strategic and International Studies (ISIS). He has been involved with the PECC since the mid-1980s and was former Executive Director of the Malaysian National Committee on Pacific Economic Cooperation (MANCPEC). He is a postgraduate of the University of Melbourne, Australia. Mr Eduardo Pedrosa is the Secretary General of the PECC International Secretariat and Coordinator of the State of the Region Report. The authors would like to acknowledge that some of the content in this chapter is based on the report of the PECC Task Force on APEC Byond 2020.



• Policies to harness the positive potential and address the disruptive impact of the digital economy and other innovative technologies;

• Structural reforms that drive growth by increasing productivity and incomes through open, well-functioning, transparent and competitive markets;

• Deeper and broader connectivity across borders, facilitated by high-quality, reliable, resilient, sustainable and broadly beneficial infrastructure and well-designed and coherent regulatory approaches, and including also a strong emphasis on supply chain and people-to-people connectivity;

• Intensified efforts to fully achieve the Bogor Goals of free and open trade and investment, with particular emphasis on components of the agenda where progress has been lagging;

• Strong APEC support for the multilateral trading system based on agreed values and norms reflected in updated multilateral rules, and including more effective settlement of disputes;

• High-quality trade, investment and economic partnerships among members, consistent with the values and norms of the multilateral trading system, and supporting dynamic responses to rapidly changing drivers of growth; and

• Concerted efforts in support of the eventual realization of a high-quality and comprehensive FTAAP to further advance regional economic integration.

Readers are asked to take note that the means of achieving the Vision are as, if not more, important than the Vision itself; they are not mere ancillary bullet points. This chapter uses the results of PECC's Annual Survey of the regional policy community to elaborate on the PECC Vision and draws on related work that provides some sense of the potential benefits of achieving that vision and the costs of failure.

APEC's Strategic Value

APEC is the preeminent inter-governmental institution for dialogue encompassing economies from both sides of the Pacific Ocean. The fact that it is structured for dialogue and voluntary action rather than formal commitments may be considered a drawback by some but providing an overarching sense of common purpose for cooperation is not one of them. Member economies vary greatly in size, capabilities and political and economic organization and cultures. As a result, they do not always have completely compatible sets of interests and worldviews, and hence there have been trade and investment frictions. By and large, these have been managed through bilateral and plurilateral mechanisms. Some critics of APEC have often called it a 'talk shop' without considering the tangible negative implications when parties pull back and are no longer prepared to talk. It can be said that it is precisely this lack of a semblance of common purpose, engagement and constrained behavior that today is palpably contributing to the great unease in financial markets, private companies and the policy and academic communities. APEC's strategic value does not lie in the absence of disagreements among member economies but the political commitment to resolve these and future disagreements within the framework of a greater collective.

APEC is strategic in another way. In the early 1990s, APEC members chose to open and liberalize their markets through their commitments in APEC. For APEC members who had not yet joined the WTO (such as Vietnam, China, and Russia), APEC membership was seen as vital to deepening their understanding of the disciplines involved with international rules and gaining domestic political support for reforms. With momentum for the WTO's Doha Development Round slowing to a virtual standstill, APEC became a useful platform for like-minded members to continue to open their economies and deepen integration through compatible rulemaking. While the proposal for a 21-member inclusive Free Trade Area for the Asia Pacific (FTAAP) has not gained traction, the conclusion of the smaller Comprehensive and Progressive Transpacific Partnership (CPTPP), with open accession provisions so other member economies can join, provides a strong rules-based pathway to achieving the goals of APEC.

Does APEC still matter?

The rapid growth of APEC's 21 member economies means that it is a vastly greater prize to be treasured, defended and enhanced more than at any time in the past. In 1994, when the Bogor Goals were announced, the combined GDP of all current APEC members was about \$16 trillion (current US\$) or under 50 percent of the world economy. By growing at an average annualized 4.9 percent over the past quarter of a century, APEC GDP will surpass US\$56 trillion or more than 60 percent of the world in 2020. It is crucial, however, to note important changes in characteristics.

APEC economies have been able to turn in above-average growth performances because of strong contributions from trade in goods and services. In 2020, trade will be seven times larger than in 1989. Policy actions aimed at restricting trade, investment and technology flows therefore go directly to the heart of the engine driving growth of the region. Undeniably, trade and investment liberalization have been slow and uneven in member economies. Market access continues to be hampered by new non-tariff (and now tariff) measures, while restrictions on investment and intellectual property protection create unlevel playing fields and distort flows. PECC's Vision for APEC calls for robust dialogue, stakeholder engagement, and effective cooperation to address the unfinished agenda of the Bogor goals and promote open, transparent and competitive markets.

If APEC economies were already recognized to be 'interdependent' in 1994, they have become infinitely more so in 2020 and there are strong indications that these trends will continue. Indicators of global and regional value chains (GVCs & RVCs), broadly defined as the percentage of trade crossing borders more than once, have generally risen. Economies are investing a great deal in physical infrastructure and promoting connectivity within and outside their borders. At the same time, digital technologies have meant that parts and product outsourcing has now evolved to become complex value chains of goods and services. Driven by productivity gains, these have greatly lifted welfare in ways that are not always appreciated or fully measurable, and they are continuing to transform economies going forward. Both trends critically require sound and coherent policies and regulatory approaches if member economies are to fully benefit from them. The ultimate prize for APEC member economies lies not merely in its members collective economic scale but the ability to improve the living standards of its citizens. Per capita incomes in the region have risen 75 percent in the three decades to 2020, lifting millions out of poverty, creating large and vibrant middle classes whose consumption helps sustain growth, contribute to political stability and, through cross-border travel, spread incomes and wealth. On the darker side, there are those who have not been able to fully participate in growth, feel marginalized and become politically discontented. Rather than turning inwards, APEC economies have clearly to emphasize inclusiveness and quality growth to a much greater degree and not just pursue growth at any and all costs, both domestically and regionally.

The issue of sustainability is one that now urgently requires collective public goods to manage the negative economic and social externalities of economic growth. Sustainability covers many inter-related aspects but chief among them is the impact on the environment (or biosphere). Technology holds great promise and is beginning to take hold in some areas, such as in renewable energy but emissions of greenhouse gases, deforestation, loss of biodiversity and natural habitat, wastes, especially of plastics, are taking a visceral toll on natural and human populations, especially those of lesser developed economies.

Costs of fragmentation

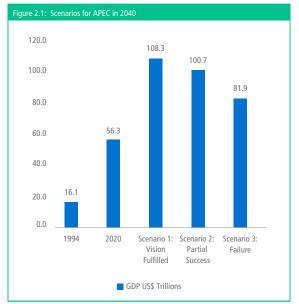
Any attempt at modeling the future of APEC economies is, by its nature, illustrative and fails to take into account the many economic interdependencies and political uncertainties, which are often self-reinforcing. In looking ahead to 2040, we use the estimates of the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII)¹, Shared Socioeconomic Pathway (SSP) to see the material impact on peoples' lives and what might be needed to achieve them. The SSP is intended for CEPII's own purposes but is broadly in line with APEC's aspirations and include some of the key concerns that future growth in the region be more sustainable and inclusive as well as bolster support for multilateral institutions.

• SSP Scenario 1: (in our words: Vision Fulfilled). This is a world making relatively good progress towards sustainability, with efforts to achieve development goals, while reducing resource intensity and fossil fuel dependency. This world is characterized by an open, globalized economy, with relatively rapid technological change directed toward environmentally friendly processes, including clean energy technologies and yield-enhancing technologies for land. Consumption is oriented towards low material growth and energy intensity.

• SSP Scenario 2: (in our words: Partial Success). APEC economies make some progress on elements of the vision. This is based on SSP2 Middle of the Road. In this world, trends typical of recent decades continue, with some progress towards achieving development goals, reductions in resource and energy intensity at historic rates, and slowly decreasing fossil fuel dependency. Most economies are politically stable with partially functioning and globally connected markets. A limited number of comparatively weak global institutions exist. Per-capita income levels grow at

a medium pace on the global average, with slowly converging income levels between developing and industrialized economies.

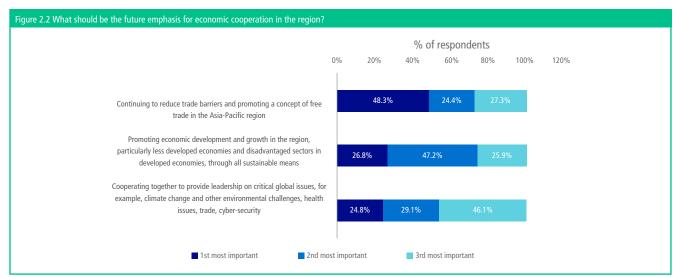
• SSP Scenario 3: (in our words: Failure). APEC economies either fail to adopt a vision similar to that articulated here or are unable to make progress along the way. This is based on SSP3 Fragmentation. The world is separated into regions characterized by extreme poverty, pockets of moderate wealth and a bulk of economies that struggle to maintain living standards. Regional economic blocs have re-emerged with little coordination between them. This is a world failing to achieve global development goals, and with little progress in reducing resource intensity, fossil fuel dependency, or addressing local environmental concerns such as air pollution. The world has de-globalized, and international trade, including energy resource and agricultural markets, is being severely restricted. Little international cooperation and low investments in technology development and education slow down economic growth in high-, middle-, and low-income regions. Governance and institutions show weakness and a lack of cooperation and consensus; effective leadership and capacities for problem-solving are lacking.



Source: GDP in 1994 and 2020 are from the IMF (US current US\$), growth rates are extrapolated based on the Shared Socioeconomic Pathways (SSP) Projections by CEPII, calculated by the PECC Secretariat.

As shown in Figure 2.1, the difference between fulfillment of the vision and partial success is significantly smaller than between failure and partial success. In other words, even slow progress towards the goals is preferable than a reversal. Annualized growth in Scenario 1 is 3.3 percent for the APEC region, 1.6 percentage points slower than the growth from 1994 to 2020. Under Scenario 2, annualized growth for APEC members would be 0.3 percentage points lower than under Scenario 1 at 3.0 percent while Scenario 3 would be the lowest at 1.9 percent.

These examples do not capture some of significant policy developments that have already taken place such as the entry into force of the CPTPP, the recently concluded Japan-US minitrade deal or the ongoing Regional Comprehensive Economic Partnership (RCEP) negotiations. These are potentially significant. Earlier modelling work suggests that the impact of the TPP that



Question: "In 2020 APEC economies will reach the Bogor Goals deadline they set for 'free and open trade in the Asia-Pacific', emphasizing trade. In thinking about the future for economic cooperation in the region, what do you think the main emphasis should be?"

Figure 2.3: Areas of Focus for APEC % of respondents who rated the area important or very important 60% 0% 20% 40% 80% 100% Robust dialogue and effective cooperation among member economies 49.9% Long term policy initiatives that promote environmental sustainability 39.5% Strong APEC support for the rules based multilateral trading system 45.6% High-quality trade, investment and economic partnerships 43.3% among members Initiatives to enhance economic participation by all segments 35.5% of society and reduce income disparities Structural reforms that drive growth 41.0% Policies that will allow all sections of society to take full advantage of 38.9% the digital economy and other technologies Deeper and broader connectivity across borders 35.1% Effective and broader stakeholder engagement 26.4% The principle of open regionalism 26.1% Intensified efforts to fully achieve the Bogor Goals 21.2% Very Important Important

Source: PECC State of the Region Survey 2019

Question: Further thinking about the future of regional cooperation, how would you rank the importance of the following areas?

included the US would increase baseline GDP for APEC members by 0.4 percent and an RCEP by 0.9 percent. If an FTAAP were to be achieved based on the TPP template it would increase baseline regional GDP by 4.3 percent by 2025.

Vision Beyond Trade?

The PECC Task Force on the APEC 2020 Vision sought to gain a better understanding of the Vision by surveying its stakeholders in 2018 (almost 300 responses) and in the PECC Survey on the State of the Region 2019 (627 responses). The results of the latter are

reported below and strongly reinforce the central themes of the PECC Vision for APEC.

As shown in Figure 2.2, 48.3 percent of the regional policy community believes that "continuing to reduce trade barriers and promoting a concept of free trade in the Asia-Pacific region" is the most important emphasis for regional cooperation. This compares with 27 percent who placed "promoting economic development and growth in the region, particularly less developed economies and disadvantaged sectors in developed economies, through all

Robust Dialogue Critical for APEC

Moving on to specific areas of focus, respondents to PECC Survey on the State of the Region 2019 were asked to rank each of the 10 areas of focus seen as important to achieving the post-2020 vision for APEC.

As shown in Figure 2.3, 50 percent of respondents from the regional policy community ranked *"Robust dialogue and effective cooperation among member economies"* as very important.

Figure 2.3 displays the different areas of works in order of weighted scores. However, it is also striking to look at the percentage of respondents who selected areas as 'very important'. Listing areas in that way the top 5 were:

Robust dialogue and effective cooperation among member economies

Strong APEC support for the rules-based multilateral trading system

• High-quality trade, investment and economic partnerships among members

- Structural reforms that drive growth
- Long term policy initiatives that promote environmental sustainability

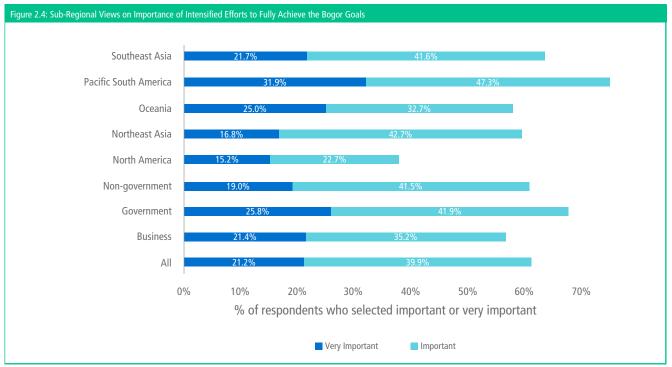
Given APEC's traditional focus areas on trade, the results were somewhat surprising. While APEC's traditional modality of robust dialogue was seen as something critical to its future, the survey indicated a desire for APEC to undertake more work on sustainability followed by traditional areas.

Achievement of Bogor Goals

Given the responses to shown in Figure 2.3, it is somewhat surprising that *'intensified efforts to fully achieve the Bogor Goals'* (of free and open trade and investment in APEC by 2020) ranked the lowest amongst the areas of focus. This is perhaps symptomatic of the present reality of trade conflicts in the region and, to some degree, a discouragement effect. Deeper analysis of the survey results shown in Figure 2.4 indicate differences within the regional policy community. For example, 32 percent of respondents from South America rated Bogor as very important compared to only 17 percent of Northeast Asians. In any case, efforts to achieve the Bogor goals are still regarded as important but perhaps to a lesser extent than other activities.

Sustainability

As shown in Figure 2.3, there was a high degree of support among the regional policy community for APEC focusing more on sustainability issues as part of its post 2020 work. Sustainability and inclusiveness are already highlighted as necessary features of economic growth in the *APEC Strategy for Strengthening Quality Growth*, endorsed by Leaders in 2015 but more needs to be done in the coming two decades.



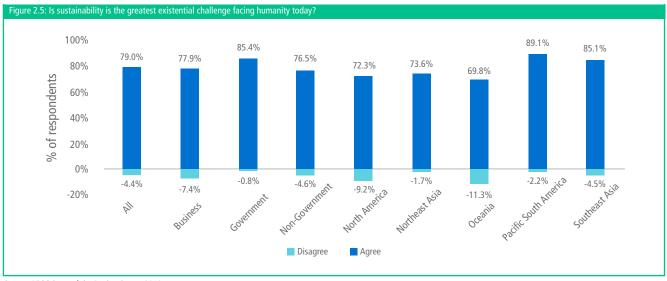
Source: PECC State of the Region Survey 2019

Question: Further thinking about the future of regional cooperation, how would you rank the importance of the following areas: Intensified Efforts to Fully Achieve the Bogor Goals

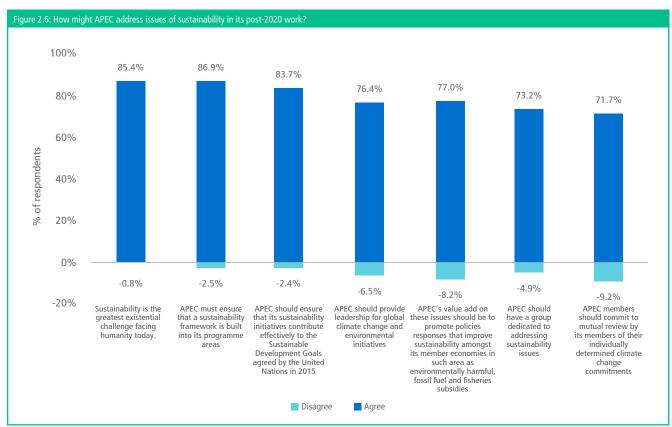
There was broad agreement across the Asia-Pacific that sustainability is the greatest existential challenge facing humanity today but with some variance among sub-regions. Respondents from Pacific South America were in the strongest agreement while those from Oceania registered more disagreement, along with North America. Amongst the different sectors, government respondents agree the most strongly while business sector were in the weakest agreement.

To gauge the level of agreement around the Asia-Pacific policy community on some possible key concepts and ways in which APEC might address sustainability issues, survey respondents were asked to indicate their levels of agreement with a number of statements. As shown in Figure 2.5, there was broad agreement that APEC should have a sustainability framework and contribute to the achievement of the UN's Sustainable Development Goals.

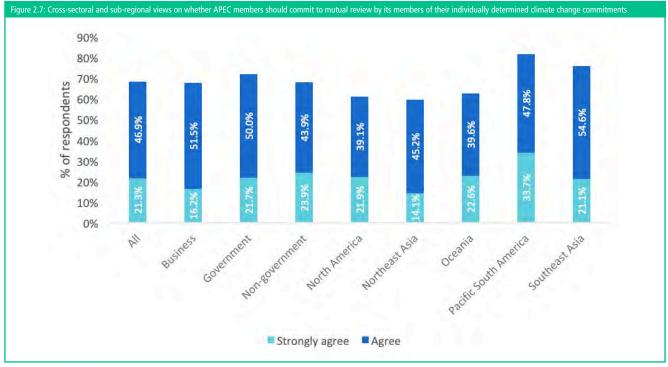
As shown in Figure 2.7, there was overall agreement on the idea that APEC members should commit to mutual review by members of their individually determined climate change commitments but there was considerable variance among sub-regions on their agreement. Looking only at percentages of those who strongly agreed. the highest level of support came from Pacific South America with 34 percent but only 14 percent of those from Northeast Asia agreed.



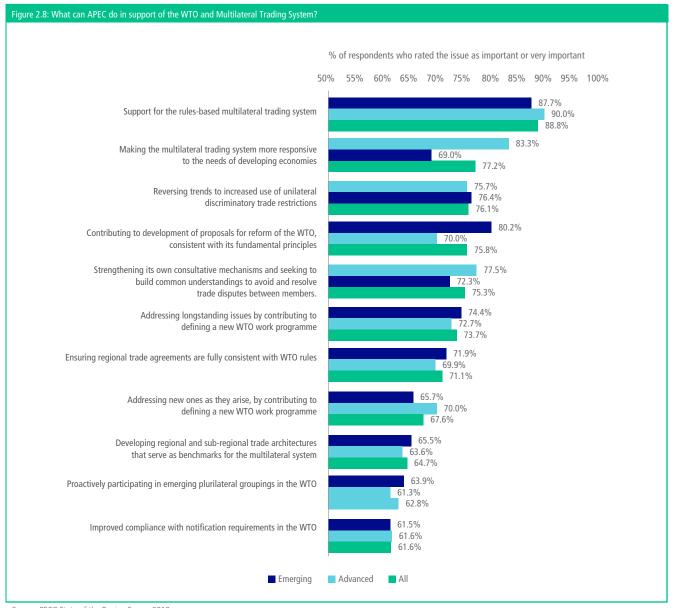
Source: PECC State of the Region Survey 2019



Question: Please indicate the level of agreement or disagreement that you have with the following statements on sustainability.



Source: PECC State of the Region Survey 2019 Question: Please indicate the level of agreement or disagreement that you have with the following statements on sustainability: APEC members should commit to mutual review by its members of their individually determined climate change commitments



Source: PECC State of the Region Survey 2019

Question: In 1994 in the Bogor declaration, regional leaders set the objective of APEC leading the way in strengthening the open multilateral trading system. They further called for the successful launching of the World Trade Organization (WTO). How important do you think each of the following should be to APEC's work on trade after 2020?

Support for the WTO and Multilateral Trading System

As shown in Figure 2.3, support for the rules-based multilateral trading system ranked third in the areas of focus for APEC work in its post-2020 vision. Indeed, support for the rules-based system has been at the heart of APEC since its very founding and was part of its rationale as argued by former Australian Bob Hawke (see chapter 1). Figure 2.8 shows the survey results for respondents from advanced economies and emerging to demonstrate that with

the exception of "Making the multilateral trading system more responsive to the needs of developing economies" there were high levels of convergence on the rankings given to the various actions suggested in the PECC survey. Even then, it is not that respondents did not consider it a low priority, with 69 percent of respondents from advanced economies ranking it as either important or very important, it was just slightly less important for them than for respondents from emerging economies.

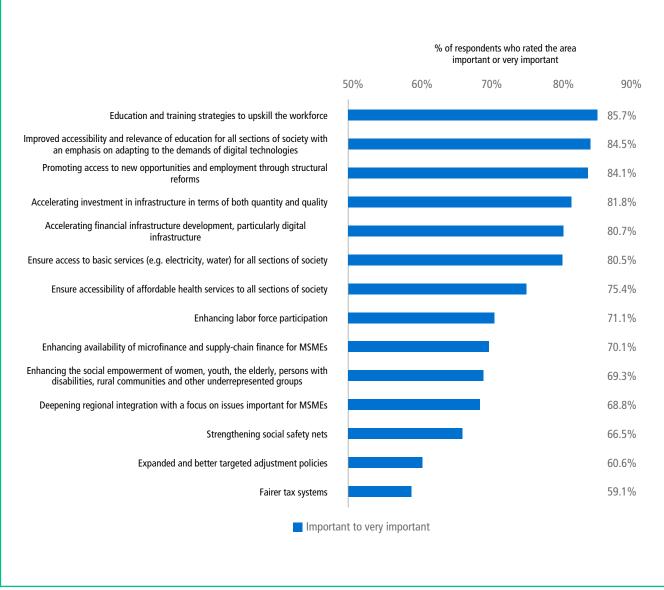
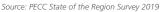


Figure 2.9: How important do you think each of the following are for APEC to address in order to promote people-oriented economic growth?

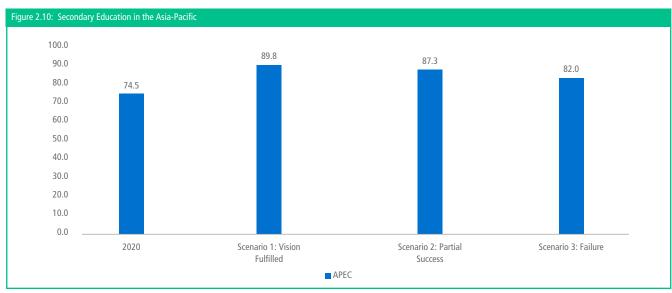


Inclusion

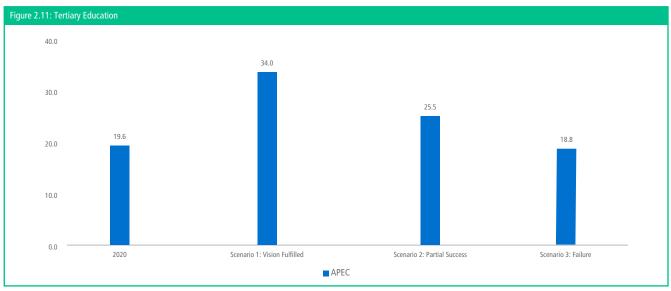
Initiatives to enhance economic participation by all segments of society and reduce income disparities ranked fifth among the focus areas for APEC's post-2020 work. Survey respondents were asked to rank a variety of initiatives that APEC could undertake to promote more people-oriented growth in the region. As shown in Figure 2.9, the top 5 were related to education, employment and opportunities through structural reforms and infrastructure.

Education and training, in particular, is fundamental to how APEC economies perform in the coming decades, this is confirmed by the CEPII study referenced earlier. Today, around 1.49 billion people in the APEC region have secondary education. To achieve the growth rates for Scenario 1, the percentage of the workforce with secondary education needs to have increased from about 75 percent to 90 percent by 2040. Under Scenario 2 the assumption is that 87 percent of the workforce has secondary education while under Scenario 3 just 82 percent. The magnitude of the challenge should not be underestimated, this involves providing secondary education to an additional 250 million people over the next 20 years under Scenario 1.

2. APEC BEYOND 2020:WHAT LIES AHEAD?



Source: Based on the Shared Socioeconomic Pathways (SSP) Projections by CEPII, calculated by the PECC Secretariat



Source: Based on the Shared Socioeconomic Pathways (SSP) Projections by CEPII, calculated by the PECC Secretariat.

Tertiary Education

An even bigger challenge given the rapid changes taking place to the nature of work is in the ability of education systems to deliver tertiary and lifelong education. As seen in Figure 2.10, approximately 20 percent of the working-age population has some form of tertiary education. To achieve the growth envisioned under Scenario 1, that will need to significantly increase to about 34 percent of the working-age population. This is an increase of tertiary education for 268 million people. Under Scenario 2, only 25 percent of the population is assumed to have some form of tertiary education while under Scenario 3 the percentage of the workingage population with tertiary education actually goes down. As a point of reference, today, about 37 percent of Australia's workingage population has some tertiary education while less than 10 percent of Vietnam. The potential for digital delivery of education is enormous, for example, the Topica EdTech Group is delivering online tertiary education to thousands of students in Vietnam at a fraction of the $\rm cost.^2$

Structural Reforms

Structural reforms have already been mentioned as a priority with respect to promoting people-oriented growth. Survey respondents were asked to rank the importance of different types of reforms in a number of different sectors in connection with how important they would be to the future growth of their economies.

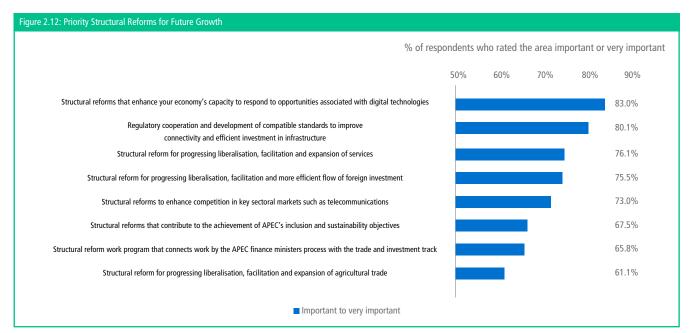
Perhaps unsurprisingly the top areas of focus were reforms to enhance responsiveness to opportunities associated with digital technologies. This was followed by reforms to improve connectivity and the efficiency of infrastructure and in the services sectors.

Structural Reforms and the Trade Agenda

The PECC report on the post-2020 vision argued that APEC members should explore the potential for its work on structural reform to contribute to achieving its goal in areas where significant barriers remain – agriculture and services trade most notably. As seen in Figure 2.12, structural reform for advancing liberalisation, facilitation and expansion of services were ranked highly by the regional policy community as being important for the future

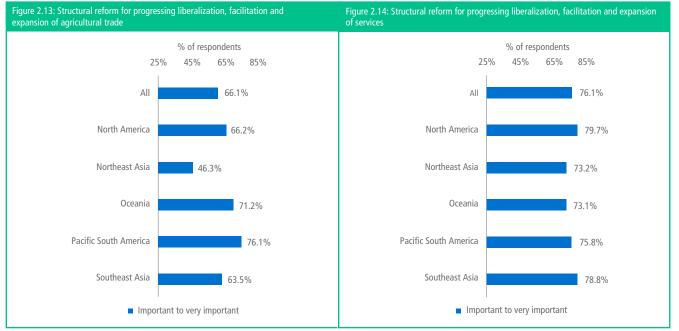
growth, structural reforms were not as important in agricultural trade. Figures 2.13 and 2.14 below shows the breakdown of responses by sub-region on these elements.

While there was little variation among sub-regions on how they saw the importance of structural reforms for services, Northeast Asian respondents evaluated the importance of structural reforms for liberalization of agricultural trade was much below other subregions.



Source: PECC State of the Region Survey 2019

Question: Some argue that maintaining future growth momentum will depend on meaningful structural reforms – as defined by APEC leaders: "institutional frameworks, regulations and government policy so that barriers to market-based incentives, competition, regional economic integration and improved economic performance are minimized". Please rate how important each of the following are for the future growth of your economy.



Source: PECC State of the Region Survey 2019

Question: Some argue that maintaining future growth momentum will depend on meaningful structural reforms - as defined by APEC leaders: "institutional frameworks, regulations and government policy so that barriers to market-based incentives, competition, regional economic integration and improved economic performance are minimized". Please rate how important each of the following are for the future growth of your economy.

BOX 1 INTERVIEW WITH ANTHONY VIEL, CEO FOR DELOITTE CANADA AND CHILE, AND RICARDO BRIGGS, REGIONAL MANAGING PARTNER FOR DELOITTE CHILE

What is the digital society, and what does it mean for our economies and our businesses? We sat down with leaders Anthony Viel, CEO for Deloitte Canada and Chile, and Ricardo Briggs, Regional Managing Partner for Deloitte Chile, to learn how digital innovations are impacting society at home and abroad.

Q: Why is the digital society so transformative for economies and societies?

AV: Digital is not about digitizing the analog but rather the new normal for redefining the rules of business, government and societies. Unprecedented levels of connectivity, computational speed and data have enabled a future never seen before.

Digital innovations are reshaping our society—and economy—at an unprecedented speed. New information and communication technologies have infiltrated every aspect of our lives, and the expanding role of data has become top of mind not only for business and government, but for citizens as well.

In Canada, for example, growth in the digital economy has outpaced any other sector over the last decade, to the point where in 2017 (the most recent government data) the digital economy was worth \$109.7 billion, or around 5.5% of the overall economy, and employed nearly 900,000 people. This is a revolutionary shift in how our economy works, and all businesses in all industries need to understand these changes in order to capitalize on the immense opportunity it represents.

Ricardo: In Chile, consumers have become a key contributor to the country's digital growth. The rate of adoption for internetconnected mobile devices multiplied by eight from 2010 to 2016—that fastest growth among OECD countries. Four out of five Chilean adults already are now connected to the internet. And as a result, the Chilean e-commerce market has been growing at 24.5%, from about USD 447 million in 2008 to USD 4 billion in 2017.

But while everyone wants to be a part of this process, businesses and government leaders lack a common understanding about how to manage the transformation. The result has often been piecemeal initiatives that lead to missed opportunities, sluggish performance, and false starts.

Properly managed, digital society can create value for business, transform how we interact with our governments, and democratize access to skills and capabilities. But capturing these benefits will require a more strategic approach than we've had so far. There is tremendous opportunity if only we are able to seize the moment.

Q: Are there particular aspects of the digital society that present the greatest opportunities? What are you seeing emerge in the marketplace?

Ricardo: At Deloitte, we believe that artificial intelligence (AI) will be one of the most transformative technologies of our time. It has touched nearly every industry and sector, and it has the potential to drive exponential change in the near future.

According to the AI Readiness study during the first half of 2019, 78% of Chilean companies have not incorporated AI technologies in their processes, products and services. 14% are in insufficient degrees of use and only 8% have incorporated it in a generalized way.

Recognizing the potential of the technology, we are investing to make AI expertise a core element of our business. Over the last year we launched a new AI consulting practice called OMNIA AI. This is the first AI practice of its magnitude launched by any professional services firm in Canada or Chile. OMNIA focuses on one common goal: helping drive adoption of cutting-edge AI technologies.

AV: That's right. Over the last year, our firm launched a research series looking at the challenges to Al adoption in Canada. We found that 71% of Canadian businesses still do not make use of AI, even though more than half of these non-adopters agree that Canada needs to be a global leader in the field.

While these results could be discouraging, we also see them as representing tremendous opportunity. We have used our research to urge leaders to accelerate AI adoption—from initial deployment all the way to using AI applications at scale. And we constructed a roadmap for government and businesses to follow that can establish Canada as a global leader in this field.

These investments into our business and our countries are us walking the walk—our big bet on AI as one of the greatest opportunities of the digital society.

Q: What challenges stand in the way?

AV: The focus of our leaders too often becomes stuck on risks rather than opportunities, and that threatens to hold us back. Deloitte has found that only 11% of Canadian companies and 4% of Chilean companies can be considered truly courageous with a growth mindset, an openness to calculated risks, and a willingness to challenge the status quo. The problem is that a more courageous mindset is a key ingredient to success in the digital economy. Businesses need to do more to collect and make use of quality data, the primary enabler of digital technologies. We need to do more to educate the public and each other on what these technologies are and how we can use them. And we all need to do more to earn and deserve the trust of citizens who have legitimate concerns about how these technologies affect their lives.

Only 4% of Canadians today are confident explaining what AI is and how it works. This lack of understanding of digital technologies and how they already impact our lives threatens to undermine our transition to the digital society and the benefits it can bring.

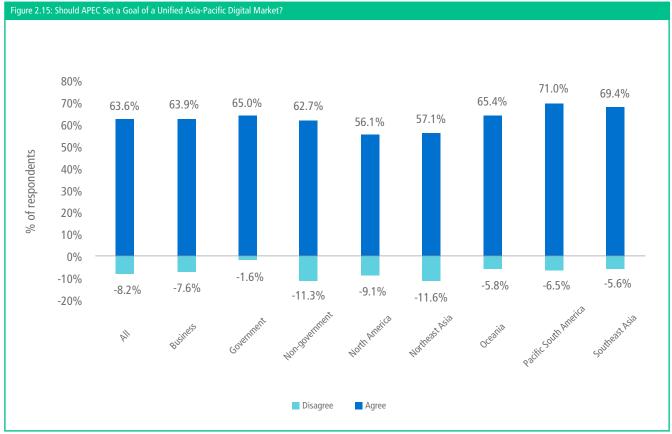
Q: What role do you see for regional cooperation to harness the digital society's full potential? Where should APEC prioritize as part of a post-2020 vision?

Towards a Unified Asia-Pacific Digital Market

PECC's task force on a post-2020 vision for APEC suggested that one way to advance the 2017 APEC Internet and Digital Economy Roadmap that set out an extensive and formidable agenda of issues is to prioritise urgent development of understandings and consensus leading to development of a unified Asia-Pacific digital market by 2030. **Ricardo:** In recent years, the Asia-Pacific has enjoyed a fundamental shift towards greater regional integration, with coordinated trade, finance, and transport. But at the same time, we live in an increasingly insular world, where trade barriers and preferential policies threaten to limit the free flow of people and ideas. If we are to realize the full potential of a digital society, the process now demands new regional agreements with the objective of pulling up the small and emerging economies by sharing best practices and knowledge.

AV: The best way to cope with the future is to create it. APEC can play a key role as a convener and an advocate in building toward a more open world. Through collaboration, we can align standards and practices, build enabling infrastructure, and capture the shared benefits of new digital technologies.

As shown in Figure 2.15 there is broad support for the idea of that "APEC should set goal of a unified Asia-Pacific digital market by 2030" as part of its post-2020 agenda. This was a view shared among the various sub-regions of the Asia-Pacific as well as different stakeholder groups. The fact that support is least evident (and disagreement strongest) among Northeast Asia and North America member economies may be indicative of the challenges that need to be faced.



Source: PECC State of the Region Survey 2019

Question: Please indicate your agreement or disagreement with the following statements: APEC should set a goal of a unified Asia-Pacific digital market by 2030

The APEC Internet and Digital Economy Roadmap (2017) sets out an extensive and formidable agenda of issues in APEC, including:

- Development of digital infrastructure;
- Promotion of inter-operability;
- Achievement of universal broadband access;

• Development of holistic government policy frameworks for the Internet and

Digital Economy;

• Promoting coherence and cooperation of regulatory approaches affecting the

Internet and Digital Economy;

• Promoting innovation and adoption of enabling technologies and services;

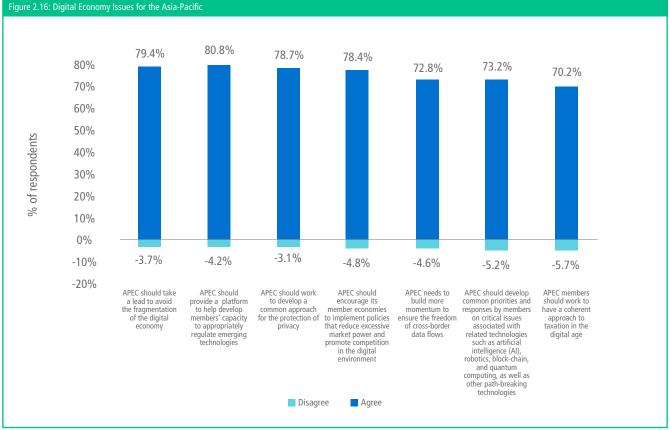
• Enhancing trust and security in the use of information and communications technologies (ICTs);

• Facilitating the free flow of information and data for the development of the Internet and Digital Economy, while respecting applicable domestic laws and regulations;

• Enhancing inclusiveness of the Internet and Digital Economy.

There is remarkable agreement amongst the expert policy community about difficult policy issues at the regional and multilateral level. As shown in Figure 2.14, there is little disagreement with statements on the importance of APEC addressing these issues.

As shown in Figure 2.16 there was broad agreement among the regional policy community on specific issues that APEC could address.



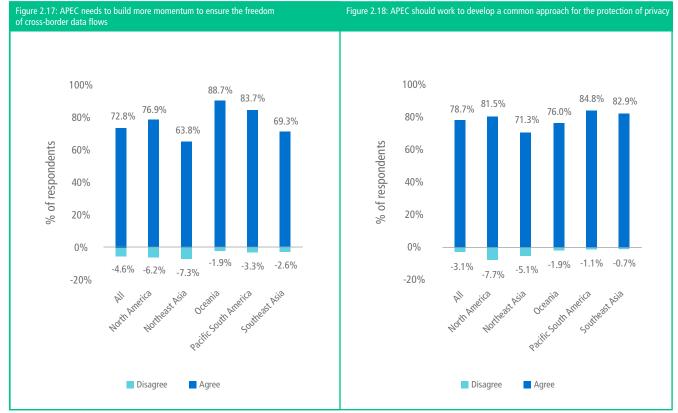
Source: PECC State of the Region Survey 2019

Please indicate your level of agreement with the following statements regarding the digital economy

Cross Border Data Flows and Privacy Protection

Even on fairly contentious issues where APEC economies are known to have different approaches, as shown in Figures 2.17 and 2.18 there was very strong support for more APEC work to ensure the freedom of cross border data flows as well as develop a common approach for the protection of privacy. There were differences among sub-regions, for example, Northeast Asian and Southeast Asian respondents were slightly less enthusiastic about the need to build more momentum on cross border data flows while there were slightly more supportive of idea of developing a common approach for the protection of privacy. What these survey results indicates is at least a very strong interest in the desire to explore the potential for cooperation and common approaches to these critical issues over the coming years.

Even on issues that have not yet been discussed by officials, there was a strong desire by the policy community to see APEC develop common priorities and responses on critical issues related to them such as artificial intelligence robotics and blockchain. In other words, APEC's traditional role as an incubator should not only continue but needs to be strengthened in the face of these very rapidly changing technologies.



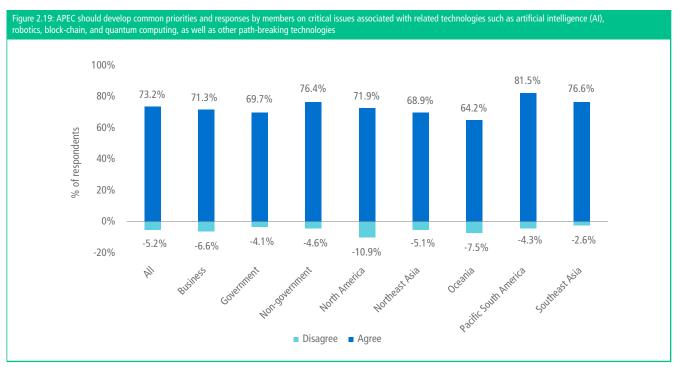
Source: PECC State of the Region Survey 2019

Please indicate your level of agreement with the following statements regarding the digital economy.

Pathways to a Free Trade Area of the Asia-Pacific

A Free Trade Area of the Asia-Pacific (FTAAP) has been an aspirational goal for APEC since leaders agreed in 2009 to its realization by developing and building on ongoing regional undertakings. A decade since then, one of the pathways has since been completed – the CPTPP -- and the RCEP negotiations are ongoing. As shown in Figure 2.20, the regional policy community's preference is for the eventual convergence of the different pathways.

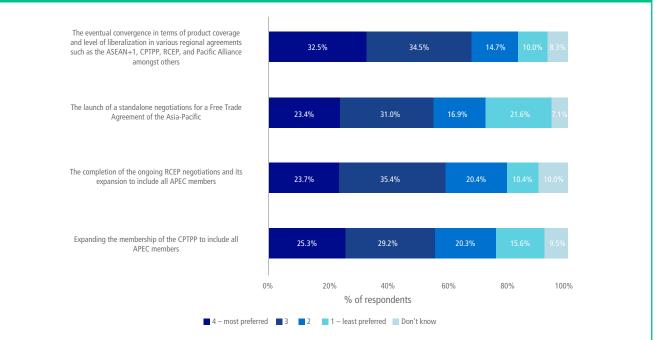
There were some significant differences among sub-regions on their preferences. As shown in Figures 2.21 and 2.22, Northeast Asian and Southeast Asian respondents tended to prefer *"The completion of the ongoing RCEP negotiations and its expansion to include all APEC members"* while North Americans tended to prefer the expansion of the CPTPP.



Source: PECC State of the Region Survey 2019

Question: Please indicate your level of agreement with the following statements regarding the digital economy.

Figure 2.20: How to achieve the FTAAP



Source: PECC State of the Region Survey 2019

49

Question: In 2009 APEC members committed to take concrete steps toward realization of a Free Trade Area of the Asia-Pacific (FTAAP), what do you think is the best way towards its achievement? Please rank each option in order of your preference, with 1 being the your least preferred choice and 4 your most preferred.



Source: PECC State of the Region Survey 2019

Question: In 2009 APEC members committed to take concrete steps toward realization of a Free Trade Area of the Asia-Pacific (FTAAP), what do you think is the best way towards its achievement? Please rank each option in order of your preference, with 1 being the your least preferred choice and 4 your most preferred.

Priority issues for Asia-Pacific Trade Agreements

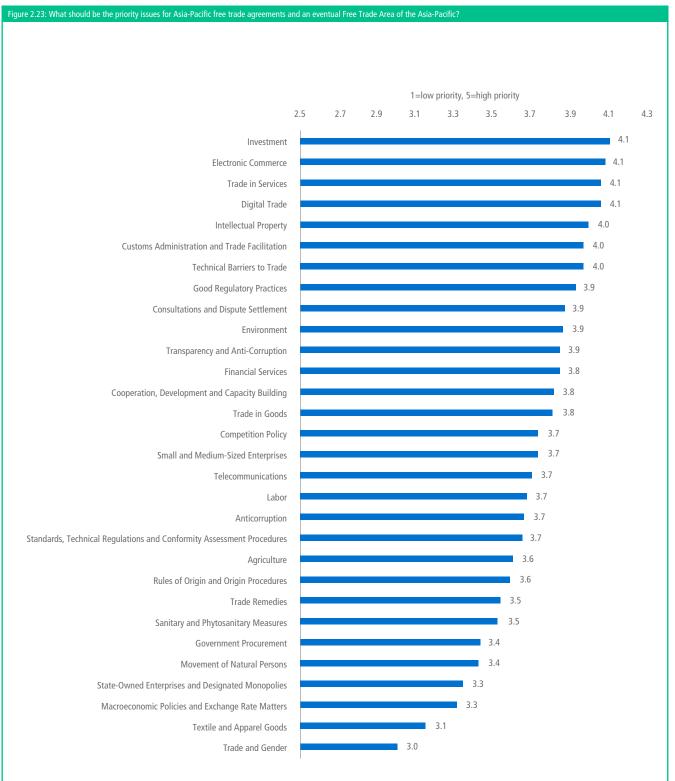
As discussed above, the preferred way to achieve an FTAAP is the eventual convergence of existing trade agreements. However, there are some significant differences not only in their levels of liberalization but also in the issues they address. Respondents to PECC's survey were asked to rate issues that have appeared as chapters in a variety of Asia-Pacific trade agreements in terms of their priority.

Interestingly the issues that were most highly ranked tended to be newer issues – investment, electronic commerce, trade in services, digital trade, & intellectual property.

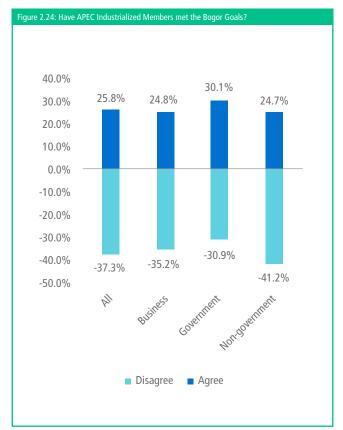
Meeting the Bogor Goals

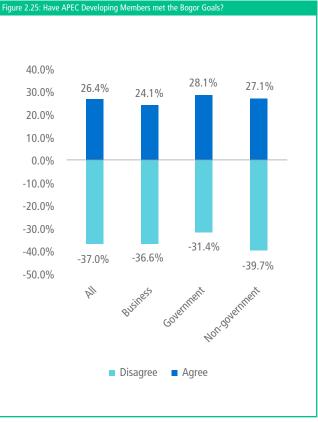
As shown in Figure 2.24 and 2.25 there was a consistent view across different stakeholder groups that neither industrialized nor developing APEC members have met the Bogor Goals. Respondents from government tended to the most positive with their assessments even though on balance they tended to think that the goals have not been met by either group while respondents from the non-government sector tended to be the most negative.

However, in spite of this assessment, respondents also had a very positive view towards APEC. As shown in Figure 2.26, 76 percent of respondents agreed that APEC is as important or more important today compared to 1989 when it was created. This positive evaluation of APEC has not been consistent over the history of PECC's State of the Region survey. In 2007, attitudes towards APEC can best be characterized as ambivalent with 47 percent having a negative view and 48 percent a positive view. Over the course of the past 12 years, the percentage of those with negative attitudes towards APEC steadily declined while those with positive views increased.



STATE OF THE REGION 2019-2020

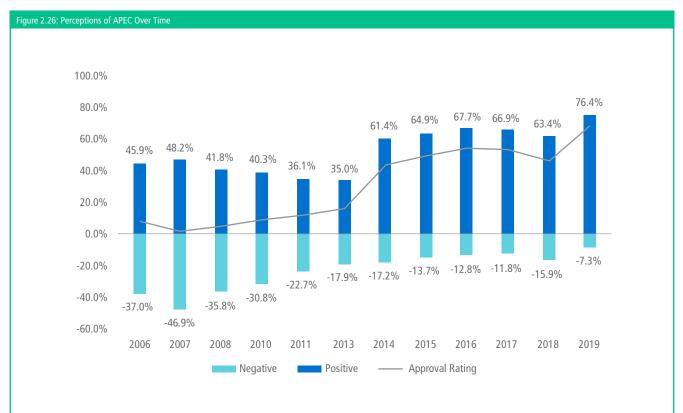




Source: PECC State of the Region Survey 2019

Question: Please indicate your agreement or disagreement with the following statements: APEC developing member economies have achieved the Bogor Goals of free and open trade Source: PECC State of the Region Survey 2019

Question: Please indicate your agreement or disagreement with the following statements: APEC industrialized member have achieved the Bogor Goals of free and open trade



Source: PECC State of the Region Survey (various years)

Question: Please indicate your opinion regarding the following statements: APEC is as important today as it was in 1989: (2006, 2007, 2008, 2010), How effective do you think each of the following institutions has been in achieving its objectives (2011, 2013); Please indicate your agreement or disagreement with the following statement: 'APEC is as important or more important today compared to 1989 when it was created' (2014, 2015, 2016, 2017, 2018, 2019)

BOX 2 NEXT GENERATION VIEWS ON APEC BEYOND 2020

Since 2009 PECC has included youth delegates through a next generation program to its General Meetings, Participants include students at the graduate and post-graduate levels. Former participants in these programs were invited to share their views on the vision for APEC beyond 2020. By the time this vision will be assessed, hopefully some of those who participated in those programs might be responsible for its achievement. A selection of those views is below.

Corey Wallace, New Zealand

He was a Next Generation Delegate to the PECC General Meeting held in Tokyo, 2010 he is currently a postdoctoral Fellow in the Graduate School of East Asian Affairs, Freie Universität Berlin

Societies have not adequately adapted to climate change and there is little thinking about the impact of future technological disruption on societal norms and social structures. A new 'social contract' is required in terms of what is expected of youth in terms of work and their career development, how they will contribute to society in terms of taxation and participate in civil society, and what assurances in terms of social security they will receive as the nature of work and society changes. Indeed, the two more concrete issues of climate change and technological innovation are tightly bound up with the challenge of the need for a new social contract for all societies in the region.

The impact of climate change on both developing and developed societies in the region has only just started to be discussed. For everyone, it will mean changes in the patterns of consumption and energy use. For some societies, however, especially in Southeast Asia and the Pacific, climate change might even mean the wholesale relocation of populations.

Technological change will radically affect the nature of work. Among the younger generation of workers and entrepreneurs we are seeing much more diverse, unstable working styles. This is not always purely by choice. We are only on the leading edge of technology change in areas such as Artificial Intelligence, robotics, additive manufacturing, autonomous vehicles, quantum computing, health, genetics and restorative/ regenerative medicine that will change the way everyone lives and works. The opportunities for society and for everyone to enjoy a wealthier, convenient lifestyle are certainly apparent. Life might become more convenient for many people, but social mobility might essentially come to an end except for a select few.

I think APEC can only do so much on the climate change front given other international institutions are struggling to address this problem. But, as technological change deepens alongside increased trade and investment flows within the region, APEC could lead a much more involved discussion about not only income equality or equity, but also intergenerational wealth equality or equity as people start to live much longer.

There is in many cases active resistance to the need for radical changes in taxation and social security in order to ensure younger generations can benefit from the economic growth associated with regional economic integration and any future strengthening of APEC. My sense is a failure to address these issues could result in significant polarization within and between societies, putting a cap on further economic integration, which could undermine the APEC project of an integrated Asia-Pacific.

Yung Woong Koh, Korea

He was the Third Prize Winner of the PECC Essay Competition in 2015 and a Next Generation Delegation to the PECC General Meeting in Manila, 2015 now works for the National Assembly Budget Office, Korea

The greatest challenge to APEC today is the political leadership in APEC's member economies such as the US-China trade conflict as well as frictions between Japan and my own native Korea. We should still strive for a global trade agreement via the WTO, or if not, at least large regional ones that provide some measure of lessening uncertainty between trade partners.

I also believe that APEC should focus more on developing the potential of the digital economy in developing economies through market-based means. I believe that as much as APEC member economies' governments are supposed to deliver public goods such as infrastructure, there need to be more fiscally and financially sustainable ways of fueling the growth for infrastructure.

Mr. Marcelo Valverde, Peru

He was the First Prize for the PECC Essay Competition in 2015 and was a Next Generation Delegation to the PECC General Meetings in 2014 and 2015 he is now a Trade Officer with the Ministry of Foreign Trade and Tourism in Peru

APEC is a dynamic forum that has many achievements as described in the APEC's Bogor Goals Progress Report 2018, however, it should be noted that Bogor Goals are not fully accomplished and with less than one year to its deadline, it is unlikely to happen.

In this context, I believe that APEC could continue with a trade vision in the next years, but with concrete steps to the realization of the FTAAP and the inclusion of private sector, especially MSMEs. Even in the context where there are many next generation topics such as digital economy, environment among others, APEC economies need to clearly define how

they could address them, while looking to deepen economic integration.

Dr Juita Mohamad, Malaysia

She was a Next Generation Delegate to the PECC General Meeting held in Tokyo, 2010 and is now a Fellow with the Institute of Strategic and International Studies, Malaysia.

India has been interested in joining APEC long before 2015. Even though India is one of the fastest developing economies in the region, members of APEC are divided about its membership. India's entry into APEC has been blocked due to different reasons, namely its unfair treatment of foreign direct investments and its perceived inability to carry out steady economic reforms.

India in APEC can be beneficial for all members in terms of market access. Market access beyond national boundaries

is a critical factor in strengthening export performance. For APEC members, greater integration with India would translate into an alternative source of intermediary goods, especially manufactured goods. India as a new trade partner can serve as a new and sustainable engine of growth for the region reducing dependence on economies that are now slowing.

More importantly, trade has been successful in pulling sections of population out of poverty, by creating jobs and opportunities for a given economy. If the region is serious about narrowing developmental gaps between member economies, a more inclusive approach is to include India in the pathway to membership, by working on areas of cooperation to prepare India to be a part of the APEC community. Instead of excluding those that are different, cooperation and exchange of views and practices is vital to break the ice.

Conclusion

Contrary to those who would write it off, APEC as an institution is still regarded by its key stakeholders as highly relevant in the coming decades. In contrast to the 1994 Bogor Goals, however, APEC's remit is now clearly broader than when the Vision was first conceived. Within the trade and investment agenda, investment and services liberalization and e-commerce and digital trade harmonization are now central areas of work. Issues of inclusiveness and sustainability have moved from being ancillary to become important joint goals to be achieved. Within these, the human resource development and structural reforms to capitalize on emerging digital technologies and improve connectivity and investment in infrastructure are critical underlying subthemes.

APEC's primary strategic value lies in its being an overarching platform for discussion and cooperation rather than negotiating. If there is one key to PECC's Vision for APEC lies in the term 'robust dialogue'. It is clear that APEC needs frank, realistic and rational discussions to inject fresh political commitment into what will become its core agenda. This is critical to dispel any doubts that APEC does not have the interest and wherewithal to perform this role.



CHAPTER INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC CONTRIBUTED BY HUGH STEPHENS¹

In 2013, regional leaders recognized that the achievement of the vision of an Asia-Pacific community required seamless physical, institutional, and people-to-people connectivity. They agreed to establish "a seamlessly and comprehensively connected and integrated Asia-Pacific" by 2025 through the APEC Connectivity Blueprint, with a mid-term review to be conducted by officials by 2020. While the Blueprint sets ambitious targets to realize its vision, it only provides a high-level framework to organize the relevant workstreams. In other words, how to measure, monitor and evaluate in concrete terms what progress APEC is making toward the achievement of its goals is currently missing from the Blueprint. Against this backdrop, the Standing Committee of the Pacific Economic Cooperation Council (PECC) established a task force to develop a Connectivity Index (the Index).

The Index is intended to contribute to policy-makers ability to assess and track the progress of the region towards fulfilling the connectivity vision set out in the Blueprint. Through this Index, it is PECC's goal to enable APEC officials to make informed decisions concerning different dimensions of connectivity, and to set policies and formulate programs with more clarity and defined targets.

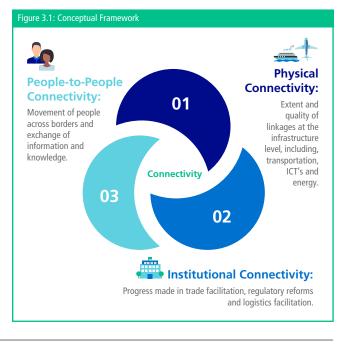
This project draws on the framework of connectivity provided in the APEC Connectivity Blueprint as well as the experience and expertise of PECC in producing an annual State of the Region report and the Index of Regional Economic Integration, first published in 2008. The project was carried out in the following two phases:

- Phase 1: Conceptualization and Design of the Connectivity Index
- Phase 2: Development and Construction of the Connectivity Index

To construct the index the following was used as a starting point:

Connectivity refers to the economy's level of integration with the rest of the world, as manifested by its participation in flow of products and services, capital, information and people via physical, institutional and people-to-people linkages. Based on the main aspects of connectivity that surfaced from an extensive literature review, plus reference to the APEC Connectivity Blueprint, the theoretical framework of connectivity is based on three self-reinforcing pillars: i) physical connectivity ii) institutional connectivity and iii) people-to-people connectivity.

- **Physical connectivity** refers to the extent and quality of linkages at the infrastructure level, including transportation (e.g. land, air and maritime), information and communication technologies and energy
- **Institutional connectivity** focuses on progress made in trade facilitation, structural and regulatory reforms and trade and logistics facilitation.
- **People-to-people connectivity** focuses on the movement of people (e.g. students, travelers and immigrants) across borders, and exchange of information and knowledge.



¹ This report is contributed on behalf of the PECC task force on connectivity. The author would like to acknowledge the contributions made to the work of the task force including co-chairs: Djisman Simandjuntak and Yose Rizal Damuri, task force members: Zhang Zhongyuan, Diego Molano, Pamela Mar, Narongchai Akrasanee, Charles Morrison, and Can Van Luc. This work would not be possible without the invaluable research of Ms Yoonee Jeong and Ms Fiona Fu. The author would also like to thank Sebastian Murdoch-Gibson and La Meeryung who provided critical comments on the methodology. And of course the tireless assistance of the PECC International Secretariat throughout the 2 years of this projects especially Ms Jessica Yom, Ms Chaitri Hapugalle, and Mr Eduardo Pedrosa.

These three pillars are self-reinforcing and inter-related; Better transportation linkages between economies foster movements of people. More cooperation at the state level to facilitate trade will encourage more investment into cross-border infrastructure or transportation.

A variety of indicators were selected as proxy measures. However, these measures are not only on different scales but were not available for all the economies of the region. A four-step process was taken to resolve these issues after the raw data was gathered:

- Values were capped at 100 and negative values were converted to absolute values
- The data was then transformed through a min-max conversion. This standardizes indicators to have an identical range (0 to 100, for example) by subtracting the minimum value and dividing by the range of the indicator values.
- Missing values were then treated by using the average of economies in their income group
- The data was then transformed weighted so that each subindex within each pillar would be of equal weight.³

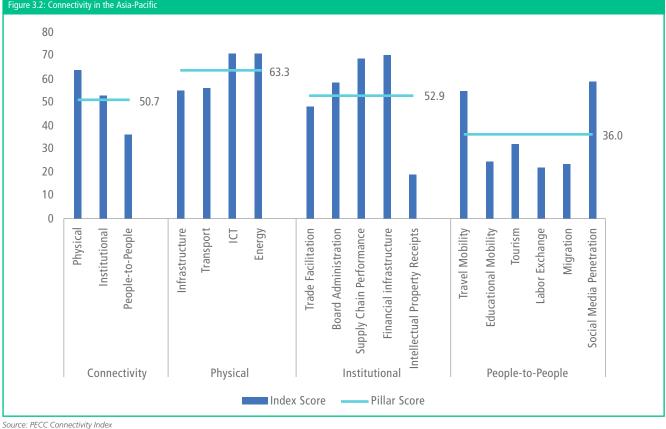
Connectivity Index Results

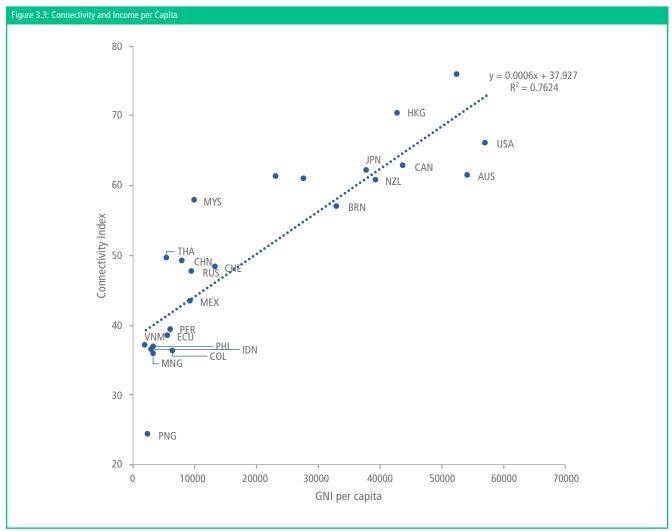
Figure 3.2 below shows the overall connectivity score divided into the 3 pillars, as well as the scores for the three pillars and their component sub-indices for the Asia-Pacific region as whole. For the region, physical connectivity accounts for 41 percent of connectedness followed by institutional at 35 percent and people to people at 24 percent. While there are some differences at the level of individual economies, the pattern is fairly common across all regional economies no matter the level of development.

In Figure 3.2, the scores have been normalized to be out of 100 to allow for comparison across each sub-index. As shown in the chart, overall physical connectivity is much higher than both institutional and people-to-people. Within each pillar there is considerable variance in performance on each sub-index. As argued in the conceptual framework for the Index, there three pillars are selfreinforcing and inter-related; better transportation linkages between economies foster movements of goods and services which would indicate the need for greater focus on the institutional and people-to-people pillars.

The Index also shows considerable variance among economies on the overall level of connectivity as well as within each sub-index. While this may well be a result of deliberate policy choices and development models, at the same time, the index identifies possible areas for action.

The difference shown at both the pillar and sub-index pillar provides policy-makers areas for focus in the post-2020 mid-term review phase of the APEC Connectivity Blueprint.





Source: PECC Connectivity Index, World Bank, and Statistics APEC

Figure 3.3 shows regional economies' index values with their GNI per capita levels. The line shows the best fit between the two sets of data. To further analyze these results economies included in the index were divided into major income groups as defined by the World Bank.

Some caution is required in interpreting the data this way; the data should not be interpreted as a ranking but as a way to identify areas for further investigation because of the eccentricities in constructing an index. For example, several indicators in the people-to-people pillar are normalized using population which tends to result in high results for economies with smaller populations and lower results for those with high populations.

High Income Economies

The high-income group includes 11 economies whose overall connectivity scores ranges from Singapore at 76 to Chile at 48, this matches the spread of the group in terms of GNI per capita, Singapore having the highest at US\$52,000 and Chile the lowest of this group at US\$13,420. Even though Chile has the lowest Index score amongst high-income economies, it scores higher than the regional best fit line would otherwise indicate.

Amongst the high-income group several economies lie well above the line – Singapore and Hong Kong (China), Korea, and Chinese Taipei while others fall below such as Australia and the United States.

A deeper look at the sub-pillar level suggests reasons why some economies tend to fall above or below the line of best fit. For example. Singapore's people-to-people connectivity score is 51 percent higher than the average for high-income economies while Japan's score is 38 percent lower than peers and the United States is 14 percent lower. On the other hand, the United States scores 18 percent higher than the average for high-income economies on institutional connectivity.

Table 3.1: Income Group Definitions

Group	GNI per capita US\$ Range
High Income	Above 12,375
Upper Middle Income	Between 3,996 - 12,375
Lower Middle Income	Between 1,026 - 3,995
Low Income	Below 1,025

51

Upper Middle Income

The middle-income group includes 8 economies whose overall connectivity scores ranged from Malaysia at 57.8 to Colombia at 36.4. As shown in Figure 3.3, Malaysia is well above the line of best fit. Malaysia scores above the average for upper middle economies across all pillars but it is its performance in people to people connectivity at 48 percent higher than the average for its income cohort that stands out. While China on the other hand outperforms its peers in this cohort in terms of physical and institutional connectivity, its score on people to people connectivity is significantly lower than average. Indeed, some of the upper middle-income economies physical connectivity scores place them on par with those in the high-income group – in addition to those already mentioned, Thailand and Russia also perform well.

Lower Middle Income

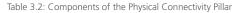
The lower middle-income group includes five economies whose scores range from Vietnam at 37.1 to Papua New Guinea at 24.3. As shown in Figure 3.3, the economies in this group tend to be clustered below the line of best fit leading to the conclusion that the relatively high range in incomes per capita in the region may be distorting some of the analysis. Even just amongst peers, some trends stand out, for example even though Vietnam does not have the highest income per capita amongst this group it scored the highest albeit by a small margin. Both Indonesia and Vietnam tended to do better than the cohort average on the physical pillar while Papua New Guinea was significantly further behind. The Philippines on the other hand was well above its peer group in terms of people-to-people connectivity.

Physical Connectivity

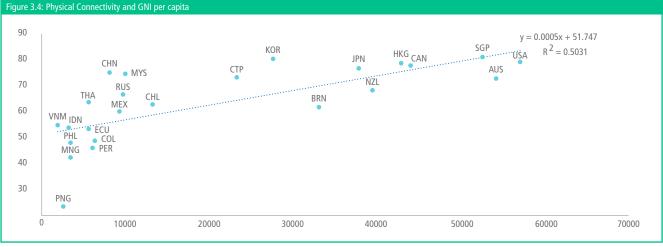
The physical connectivity pillar covers 4 sub-indices: infrastructure; transport; information and communications technology; and energy. In turn, these are composed of a total of 16 indicators. Each sub-index was been weighted equally at 25 percent each.

A list of the indicators under each sub-index is available in the annex.

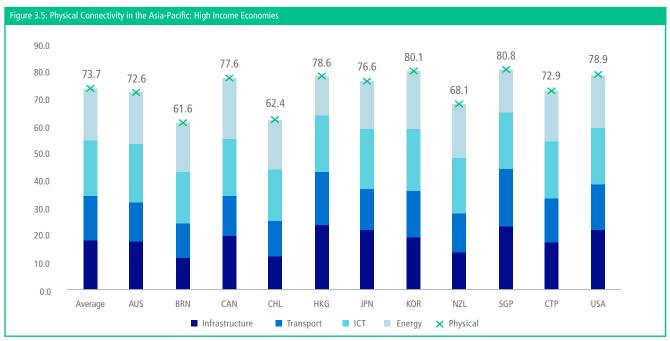
Even though each sub-index is weighted equally at 25 percent, for the region, ICT and energy account for 28 percent each of the region's total physical connectivity score. One might argue that there is a subjective component to the relative importance of each sub-index but this is an issue for policy-makers to discuss. The point here is to shed light on areas of possible cooperation for regional economies. Considering the relative performance of each economy on physical connectivity, the differences at the sub-pillar level point to possible areas where individual economies may wish to focus efforts.



Sub-Index	No of Indicators	Weight in Sub-Index
Infrastructure	4	25.0%
Transport	4	25.0%
ICT	6	25.0%
Energy	2	25.0%



Source: PECC Connectivity Index and World Bank

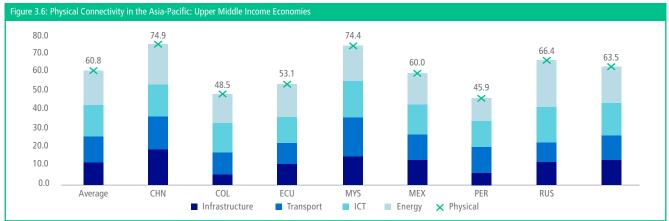


High Income

Source: PECC Connectivity Index

The results for high income economies ranged from Singapore at 80.8 to Brunei Darussalam at 61.6. High income economies displayed a large degree of heterogeneity with their respective strengths across the sub-indices included in the physical connectivity pillar. Interestingly, even though Singapore topped the cohort in terms of its overall score, its score on the energy pillar was 15 percent lower than the group average while its score for infrastructure was 27 higher. As shown in Figure 3.5, while Brunei Darussalam and Chile had similar scores on physical connectivity, with reference to Figure 3.4, Chile is above the best fit line due to its lower GNI per capita while Brunei Darussalam is below the line. Canada on the other hand performs similarly to its income group peers except on energy where it was 21 percent above the cohort average.

Both Korea and the United States performed above their peers across the sub-indices for physical pillar even though the latter fell below the best fit line due to its higher income level.



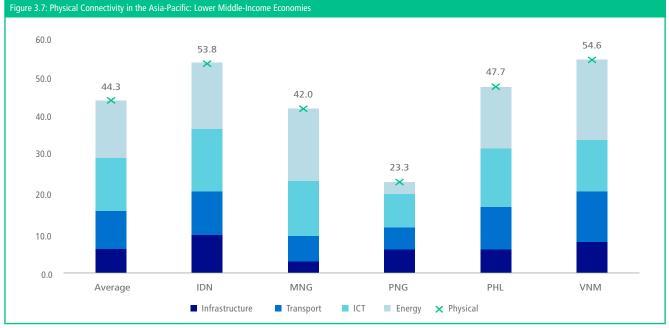
Upper Middle Income

Source: PECC Connectivity Index

The results for the upper middle-income group ranged from China at 74.9 to Peru at 45.9. China, and indeed Malaysia, Russia and Thailand's scores for the physical pillar were at par or higher than some of those in the high-income group. Where China and Malaysia tended to strongly outperform their peers in this cohort were in infrastructure and transportation. Russia on the other hand was well above others in this group in terms of energy.

While Peru was below the upper middle-income group average for infrastructure, ICT and energy it was above the cohort average for transport. Thailand performed well across every sub-index.

Lower-Middle Income



Source: PECC Connectivity Index

The lower middle-income group ranged from Vietnam at 54.6 to Papua New Guinea at 23.3. As with the upper middle group, some members of the lower middle-income group performed on par or better than those in the upper middle-income group.

Even though Vietnam does not have the highest GNI per capita amongst this group it outperformed the cohort average across each sub-index except for ICT. The Philippines on the other hand performed below the group average for infrastructure but did better on ICT.

Institutional Connectivity

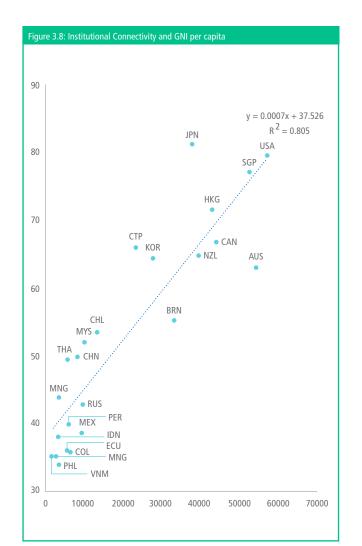
54

The institutional connectivity sub-index covers 5 sub-indices: trade facilitation; border administration; supply chain performance; financial infrastructure; and intellectual property receipts. Again, as with physical connectivity, these sub-indices are in turn composed of several indicators as shown in Table 3.3 below

Table 3.3: Components	s of th	e Institutional	Connectivity Pillar
-----------------------	---------	-----------------	---------------------

Sub-Index	No of Indicators	Weight in Sub-Index
Trade Facilitation	7	20.0%
Border Administration	5	20.0%
Supply Chain Performance	3	20.0%
Financial Infrastructure	2	20.0%
Intellectual Property Receipts	1	20.0%

As with the Physical Connectivity pillar, the region's performance on institutional connectivity was unevenly spread out among the sub-indices. Out of the region's score of 53, approximately 50 percent come from financial infrastructure and supply chain performance while a fifth each come from border administration and trade facilitation. Again, performance differed considerably among economies even within those with similar income levels.



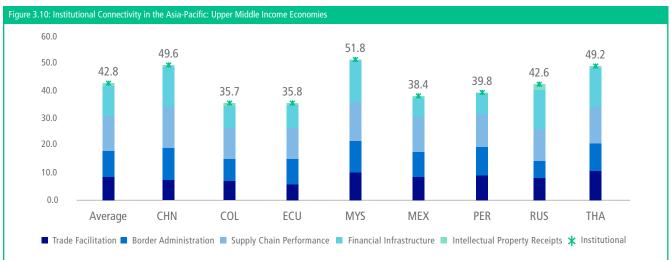
Source: PECC Connectivity Index and World Bank



The results for institutional connectivity in the high-income group ranged from Japan at 81.1 to Chile at 53.3. Even though Chile had the lowest score amongst high income economies, it should be emphasized that Chile's score fell above the regional best fit line – indicating that its institutional connectivity is better than one might expect from its income level. With reference to Figure 3.8, it is worth noting that Japan is significantly above the best fit line.

Compared to its peers in the high-income group, Japan has a lower than average score for trade facilitation but outperforms in the other sub-indices, but it is in Intellectual Property Receipts that it does far better than the cohort average.

Even though Singapore outperform across every other sub-index, it is below the cohort average in terms of intellectual property receipts.



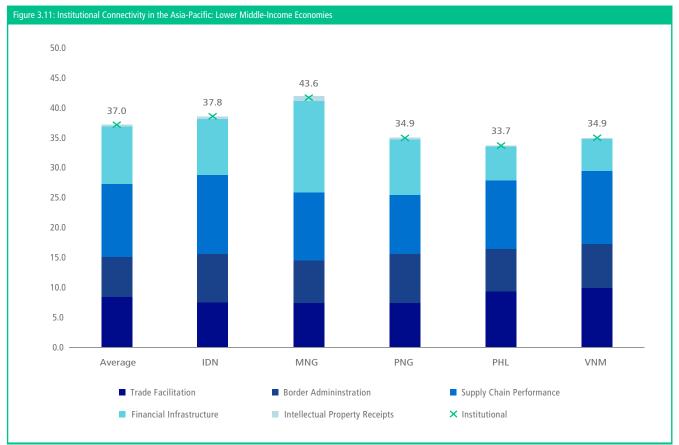
Upper Middle Income

Source: PECC Connectivity Index

The results for institutional connectivity for the upper middleincome group ranged from Malaysia at 51.8 to Colombia at 35.7. Unlike with physical connectivity, the top of this group is not on par with those in the high-income group perhaps indicating a higher degree of elasticity with GNI per capita. Malaysia had above average scores across all the institutional connectivity sub-index for its income coherent except for intellectual property receipts. For upper middle-income economies, Russia's strong performance in this regard tended to distort the average for this income cohort

3. INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC

Lower-Middle Income Economies



Source: PECC Connectivity Index

The results for lower middle-income economies ranged from Mongolia at 43.6 to the Philippines at 33.7. Where Mongolia tended to significantly outperform peers in this cohort was in financial infrastructure. By way of comparison, 93 percent of Mongolian's above the age of 15 had an account at a financial institution compared to 32 percent in the Philippines.

While Vietnam performed better than the cohort on trade facilitation its score was slightly lower on border facilitation. On the other hand, Indonesia's performance was the opposite, having a lower than group average on trade facilitation but higher on border administration.

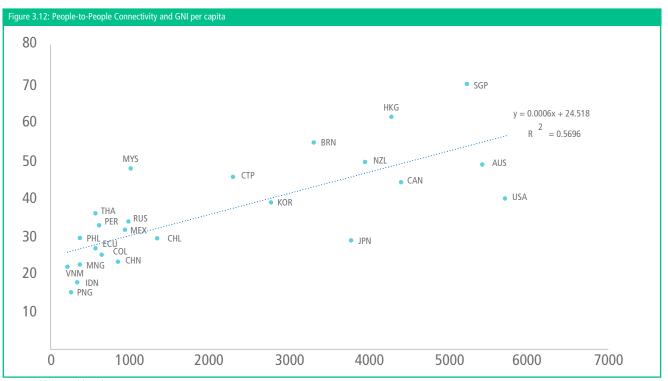
People to People

The people to people sub-index includes measures for: travel Mobility; Educational Mobility; Tourism; Labor Exchange; tourism; migration and social media penetration.

As shown in Figure 3.2, people-to-people connectivity is well-below the region's performance for both the physical and institutional pillars. While each sub-index is weighted at 16.7 percent, two sub-indices account for over half of the region's performance on people-to-people connectivity, travel mobility and social media penetration.

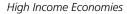
Table 3.4: Components of the People-to-People Pillar

Sub-Index	Number of Indicators	Weight
Travel Mobility	2	16.7%
Educational Mobility	1	16.7%
Tourism	3	16.7%
Labor Exchange	2	16.7%
Migration	1	16.7%
Social Media Penetration	1	16.7%



Source: PECC Connectivity Index

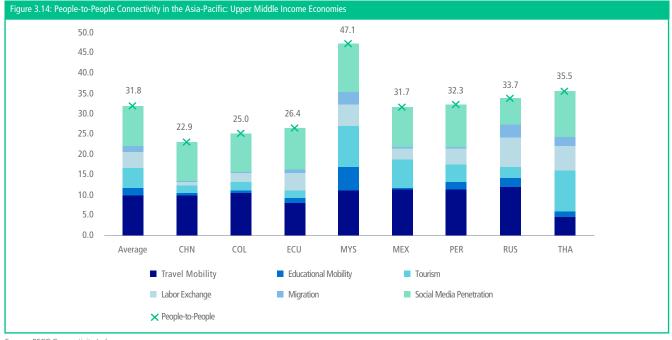
3. INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC





Source: PECC Connectivity Index

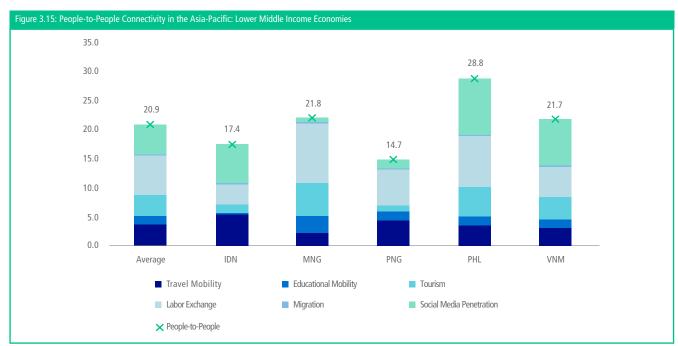
The results for people-to-people connectivity for the high-income group ranged from Singapore at 69.5 to Japan at 28.7. Singapore performed very strongly on three sub-indices of this pillar: educational mobility; tourism; and migration. Perhaps surprisingly it was below the cohort average for travel mobility which needs some explanation. This sub-index includes two indicators: passport power and number of embassies; and total number of embassies, high commissions, consulates, and other representations. While the Singapore passport is one of the most powerful passports in the group, it scored less highly in terms of the number of missions. This is one example in which the equal weight of indicators becomes a question for debate. Japan on the other hand scored lower than the cohort average on educational mobility, tourism, labor exchange and especially migration. With respect to the overall connectivity score there had been some discussion of the relatively low score of the United States. Looking into the sub-indices of this pillar allows for a better understanding of why that result occurs. The United States scores lower than other high-income economies in education mobility and tourism. Education mobility is measured by flows at the tertiary level normalized by the total number of people studying in that economy. While Australia might have a similar level of people studying at the tertiary level it takes in a much higher percentage of overseas students.



Upper Middle Income

Source: PECC Connectivity Index

The results for people-to-people connectivity for the upper middle-income group ranged from Malaysia at 47.1 to China at 22.9. Malaysia outperforms the average of this cohort in all the sub-indices but especially in educational mobility, migration and tourism. While China on the other hand underperforms the group across all the sub-indices but especially in terms of migration and labor exchange. Some explanation and a caveat is required, the proxy indicators included in these sub-indices are normalized by population (migrant stock as a percent of population) and labor exchange is measured by two-way remittances as a percentage of GDP. These tend to result in lower index values for economies with large populations and/or economies.



Lower Middle Income

Source: PECC Connectivity Index

The results for people-to-people connectivity for the lower middleincome group ranged from the Philippines at 28.8 and Papua New Guinea at 14.7. The Philippines outperformed its peers on two of the sub-indices in particular: social media penetration and tourism but was lower than the cohort average on travel mobility and migration, its score was higher than some members of the upper middle income group economies.

Conclusions

The objective of constructing this index was to provide an objective basis for assessing the state of connectivity in the Asia-Pacific. The task was formidable, not only are there many definitions of what constitutes connectivity but the very breadth of the issues that it encapsulates and the surprising lack of consistent and comparable data made the work a challenge. The purpose was to make a real contribution to the ongoing work in the region on connectivity. The work leads to several conclusions.

The first is the importance of the hypothesis that was reached after an extensive literature review and discussion among task force members: that the three pillars are self-reinforcing and inter-related.

The second is that no one size fits all – no matter how one looks at the data – economies in the region for a variety of reasons are pursuing different models and approaches. As this index looks at a single point in time this effort will need to be repeated to measure progress.

The third, based on the index findings, is the priority areas for work. Within each pillar the following were the areas that required the most work collectively:

- Physical
 - o Transport
 - o Infrastructure
- Institutional
 - o Trade Facilitation
 - o Intellectual Property Receipts
- People to People
 - o Educational Mobility
 - o Labor Exchange

There is no reason why these should apply to all regional economies. These are simply the lessons the index tells. Each economy can simply look at whether these apply in its own specific circumstances but the underlying point is that while each economy is moving towards greater levels of connectivity, APEC can provide a useful platform for collective action.

A last comment relates to the construction of the index itself. Considerable thought and discussion amongst a group of experts went into the selection of indicators and identification of the subindices under each pillar. This is one way to measure connectivity. Looking further ahead to a priority for APEC and many of its members, we need to look atthe digital economy. Were we right to have ICT as a sub-index under the physical pillar? Should each of its component indicators have had equal weight given the trends we see towards the importance of broadband access? Should the indicator on the mobility of digital transactions that was included under the institutional pillar have been included under a renamed 'digital sub-index'? What else might have been included?

These are not issues just for economists and statisticians but critical to helping policy-makers get a sense of priority for the key issuesimproving people's quality of life and increasing opportunities. Free and open trade are necessary but not sufficient conditions for this. Improved connectivity – whether through more transparent and faster customs services, reduced congestion on roads, or any one of the other measured indices, are a big part of that. Annex 1: PECC Connectivity Index Results

	Physical	Institutional	People-to-People	Connectivity
Asia-Pacific	63.3	52.9	36.1	50.7
Australia	72.6	62.8	48.5	61.3
Brunei Darussalam	61.6	55.0	54.4	57.0
Canada	77.6	66.5	44.0	62.7
Chile	62.4	53.3	29.1	48.3
China	74.9	49.6	22.9	49.1
Colombia	48.5	35.7	25.0	36.4
Ecuador	53.1	35.8	26.4	38.4
Hong Kong, China	78.6	71.3	60.8	70.2
Indonesia	53.8	37.8	17.4	36.3
Japan	76.6	81.1	28.7	62.1
Korea	80.1	64.1	38.5	60.9
Malaysia	74.4	51.8	47.1	57.8
Mexico	60.0	38.4	31.7	43.4
Mongolia	42.0	43.6	21.8	35.8
New Zealand	68.1	64.6	49.2	60.6
Papua New Guinea	23.3	34.9	14.7	24.3
Peru	45.9	39.8	32.3	39.3
Philippines	47.7	33.7	28.8	36.7
Russia	66.4	42.6	33.7	47.5
Singapore	80.8	77.0	69.5	75.8
Chinese Taipei	72.9	65.8	45.1	61.3
Thailand	63.5	49.2	35.5	49.4
United States	78.9	79.4	39.6	66.0
Vietnam	54.6	34.9	21.7	37.1

3. INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC

Sub-Index	Infrastructure	Transport	ІСТ	Energy	Physical
Asia-Pacific	13.7	14.0	17.8	17.8	63.3
Australia	17.9	14.6	21.0	19.1	72.6
Brunei Darussalam	12.1	12.4	19.0	18.0	61.6
Canada	19.7	14.8	20.7	22.4	77.6
Chile	12.6	13.0	18.9	17.9	62.4
China	18.5	17.4	17.4	21.5	74.9
Colombia	5.4	11.7	16.0	15.5	48.5
Ecuador	10.8	11.2	13.7	17.4	53.1
Hong Kong, China	24.0	19.6	20.5	14.6	78.6
Indonesia	9.8	11.2	15.9	17.0	53.8
Japan	22.1	15.0	21.8	17.7	76.6
Korea	19.5	17.2	22.2	21.2	80.1
Malaysia	15.2	20.8	19.5	18.8	74.4
Mexico	13.2	13.7	15.6	17.5	60.0
Mongolia	3.0	6.7	14.0	18.4	42.0
New Zealand	13.7	14.4	20.4	19.5	68.1
Papua New Guinea	6.2	5.5	8.5	3.0	23.3
Peru	6.1	13.4	14.4	12.0	45.9
Philippines	4.1	12.8	15.3	15.6	47.7
Russia	12.1	10.5	18.7	25.0	66.4
Singapore	23.6	20.7	20.7	15.8	80.8
Chinese Taipei	17.4	16.3	20.6	18.6	72.9
Thailand	12.9	13.1	17.8	19.8	63.5
United States	22.0	16.8	20.6	19.5	78.9
Vietnam	8.1	12.7	13.4	20.5	54.6
Weight	25.0%	25.0%	25.0%	25.0%	100.0%

Physical

Institutional

Sub-Index	Trade Facilitation	Border Administration	Supply Chain Performance	Financial Infrastructure	Intellectual Property Receipts	Institutional
Asia-Pacific	9.6	11.7	13.7	14.1	3.8	52.9
Australia	8.7	16.1	15.7	19.5	2.8	62.8
Brunei Darussalam	10.2	7.3	11.6	18.3	7.6	55.0
Canada	9.0	15.5	16.0	19.8	6.3	66.5
Chile	9.8	15.0	13.6	13.9	1.0	53.3
China	7.5	11.9	14.9	14.8	0.5	49.6
Colombia	7.1	8.1	11.3	8.2	0.9	35.7
Ecuador	5.8	9.5	11.4	8.2	0.8	35.8
Hong Kong, China	18.3	17.7	16.4	18.0	1.0	71.3
Indonesia	8.1	8.2	12.9	8.3	0.3	37.8
Japan	8.5	17.7	16.3	19.4	19.2	81.1
Korea	9.0	13.6	15.3	18.7	7.5	64.1
Malaysia	10.3	11.6	13.9	15.6	0.4	51.8
Mexico	8.7	9.1	13.2	6.7	0.7	38.4
Mongolia	8.1	6.3	10.9	17.8	0.5	43.6
New Zealand	9.4	15.9	14.6	19.6	5.1	64.6
Papua New Guinea	8.3	6.8	10.3	9.3	0.3	34.9
Peru	9.1	10.5	12.0	7.6	0.5	39.8
Philippines	9.6	6.3	11.9	5.7	0.1	33.7
Russia	8.2	6.4	11.4	14.6	2.0	42.6
Singapore	16.1	19.9	16.7	18.8	5.4	77.0
Chinese Taipei	10.3	15.0	15.7	17.1	7.6	65.8
Thailand	10.8	10.2	13.2	14.3	0.7	49.2
United States	8.9	15.5	16.6	18.4	20.0	79.4
Vietnam	10.3	6.7	12.3	5.3	0.3	34.9
Weight	20.0%	20.0%	20.0%	20.0%	20.0%	100.0%

3. INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC

People-to-People Pillar

Sub-Index	Travel Mobility	Educational Mobility	Tourism	Labor Exchange	Migration	Social Media Penetration	People- to-People
Asia-Pacific	9.2	4.1	5.4	3.7	3.9	9.9	36.1
Australia	11.4	7.5	5.4	2.9	10.4	10.8	48.5
Brunei Darussalam	7.9	14.6	6.9	1.7	9.0	14.3	54.4
Canada	12.6	6.2	4.9	1.8	8.1	10.5	44.0
Chile	11.4	0.5	3.3	1.0	1.1	11.8	29.1
China	9.6	0.9	1.8	1.0	0.2	9.5	22.9
Colombia	10.3	0.6	2.3	2.0	0.2	9.5	25.0
Ecuador	7.9	1.3	1.8	4.2	1.0	10.2	26.4
Hong Kong, China	7.3	9.5	15.5	1.6	14.3	12.5	60.8
Indonesia	5.4	0.2	1.5	3.5	0.2	6.7	17.4
Japan	15.2	1.8	1.6	0.8	0.7	8.5	28.7
Korea	13.5	2.1	3.3	4.6	1.1	13.8	38.5
Malaysia	10.9	5.8	10.3	5.1	3.2	11.8	47.1
Mexico	11.2	0.4	7.0	2.7	0.5	9.8	31.7
Mongolia	2.2	2.9	5.6	10.3	0.4	0.5	21.8
New Zealand	9.9	9.0	7.6	2.4	8.5	11.7	49.2
Papua New Guinea	4.3	1.5	1.0	6.3	0.3	1.3	14.7
Peru	11.3	1.7	4.4	4.1	0.2	10.5	32.3
Philippines	3.5	1.5	5.1	8.8	0.2	9.7	28.8
Russia	12.0	1.9	2.8	7.3	3.1	6.5	33.7
Singapore	9.6	16.7	13.6	0.2	16.7	12.8	69.5
Chinese Taipei	8.9	7.0	6.5	1.7	7.5	13.5	45.1
Thailand	4.6	1.0	10.1	6.3	2.2	11.2	35.5
United States	16.7	2.2	2.3	2.0	5.4	11.0	39.6
Vietnam	2.9	1.5	3.9	5.3	0.2	8.0	21.7
Weight	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%	100.0

64

PH	PHYSICAL CONNECTIVITY							
	Sub-index	Data sources						
1	Infrastructure	 World Economic Forum: Enabling Trade Index (ETI) Quality of Air Transport Infrastructure Quality of railroad infrastructure Quality of roads measures Quality of trade and transport related infrastructure (e.g., ports, railroads, roads, information technology) 						
2	Transport	The World Bank, The Logistics Performance Index - International shipments - United Nations Conference on Trade and Development (UNCTAD) - Linear Shipping Connectivity Index - World Development Indicators - - Air transport, registered departure worldwide - Container port traffic (TEU: 20-foot equivalent unit)						
3	ICT	 International Telecommunications Union (ITU): ITU World Telecommunication/ICT Indicators Database Percentage of individuals using the Internet Mobile network coverage, Percentage of households with a computer Percentage of households with Internet Mobile telephone subscriptions per 100 population Fixed broadband internet subscription per 100 population Active mobile broadband internet subscription per 100 population 						
4	Energy	International Energy Agency - Total primary energy supply, index 2000=100 - Energy Imports World Development Indicators - Access to electricity						

IN	INSTITUTIONAL CONNECTIVITY							
	Sub-index	Data sources						
1	Trade facilitation	 World Development Indicators Trade (as a % of GDP) Trade in services FDI net inflows (% of GDP) FDI net outflows (% of GDP) Trading across borders The World Bank Doing Business Index: Trading Across Borders database						
2	Border administration	 World Economic Forum: Enabling Trade Index (ETI) Quality of customs services Transparency of procedures and regulations related to customs clearance Time predictability of import process Level of corruption at the borders The World Bank: Logistics Performance Index Efficiency of the clearance process (i.e., speed, simplicity and predictability of formalities) by border control agencies, including customs; 						
3	Supply-chain performance	 The World Bank: Logistics Performance Index Competence and quality of logistics services (e.g., transport operators, customs brokers); Ability to track and trace consignments; Timeliness of shipments in reaching destination within the scheduled or expected delivery time. 						
4	Others	Intellectual property receipts (% of total trade)						

3. INDEX OF CONNECTIVITY IN THE ASIA-PACIFIC

PE	PEOPLE TO PEOPLE CONNECTIVITY								
	Sub-index	Data sources							
1	Business travel mobility	APEC Connectivity Blueprint: Number of economies accessible without visa							
2	Cross-border education exchange	 UNESCO Institute for Statistics* Inbound mobility rate International student mobility in tertiary education /tertiary inbound mobility ratio (%) 							
3	Tourism	 World Development Indicators International tourism, number of arrivals International tourism, number of departures International tourism, expenditures (% of total imports) International Tourism, receipts (% of total exports) 							
4	Labor mobility	World Development Indicators - Personal remittances, received - Personal remittances, paid							
5	Migration	United Nations DESA - Foreign born population, net migration rate							
6	Others	WeAreSocial : Social Media Penetration							

ANNEX



Table 1: GDP Growth (year-on-year %)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	2.4	2.7	1.7	2.3	2.6	2.7	2.7	2.6
Brunei Darussalam	1.3	0.1	1.8	4.7	3.6	3.5	2.4	2.1
Cambodia	7.0	7.5	7.0	6.8	6.7	6.6	6.6	6.5
Canada	3.0	1.9	1.5	1.8	1.8	1.7	1.7	1.7
Chile	1.3	4.0	2.5	3.0	3.2	3.3	3.3	3.2
China	6.8	6.6	6.1	5.8	5.9	5.7	5.6	5.5
Colombia	1.4	2.6	3.4	3.6	3.7	3.8	3.8	3.7
Ecuador	2.4	1.4	-0.5	0.5	1.6	2.7	2.5	2.5
Hong Kong, China	3.8	3.0	0.3	1.5	2.5	2.7	2.7	2.9
India	7.2	6.8	6.1	7.0	7.4	7.4	7.4	7.3
Indonesia	5.1	5.2	5.0	5.1	5.2	5.3	5.3	5.3
Japan	1.9	0.8	0.9	0.5	0.5	0.5	0.5	0.5
Korea	3.2	2.7	2.0	2.2	2.7	2.9	2.9	2.9
Laos	6.8	6.3	6.4	6.5	6.7	6.8	6.8	6.8
Malaysia	5.7	4.7	4.5	4.4	4.9	4.8	4.8	4.9
Mexico	2.1	2.0	0.4	1.3	1.9	2.1	2.3	2.4
Myanmar	6.3	6.8	6.2	6.3	6.0	6.1	6.3	6.5
New Zealand	2.6	2.8	2.5	2.7	2.6	2.6	2.5	2.5
Papua New Guinea	2.7	-1.1	5.0	2.6	2.5	3.1	3.4	3.5
Peru	2.5	4.0	2.6	3.6	4.0	4.0	3.9	3.8
Philippines	6.7	6.2	5.7	6.2	6.4	6.5	6.5	6.5
Russia	1.6	2.3	1.1	1.9	2.0	2.0	1.9	1.8
Singapore	3.7	3.1	0.5	1.0	1.6	2.2	2.4	2.5
Chinese Taipei	3.1	2.6	2.0	1.9	2.1	2.1	2.1	2.0
Thailand	4.0	4.1	2.9	3.0	3.5	3.6	3.6	3.6
United States	2.4	2.9	2.4	2.1	1.7	1.6	1.6	1.6
Vietnam	6.8	7.1	6.5	6.5	6.5	6.5	6.5	6.5

	2017	2018	2019	2020	2021	2022	2023	2024
Asia-Pacific	3.8	3.8	3.3	3.3	3.3	3.3	3.3	3.3
Emerging	5.8	5.7	5.2	5.3	5.5	5.4	5.4	5.3
Advanced	2.4	2.5	2.0	1.8	1.6	1.6	1.6	1.6

Table 2: CPI Inflation (year-on-year %)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	2.0	2.0	1.6	1.8	2.0	2.3	2.5	2.5
Brunei Darussalam	-0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Cambodia	2.9	2.4	2.2	2.5	2.7	3.0	3.0	3.0
Canada	1.6	2.2	2.0	2.0	2.0	2.1	2.1	2.0
Chile	2.2	2.3	2.2	2.8	3.0	3.0	3.0	3.0
China	1.6	2.1	2.3	2.4	2.8	2.9	3.0	3.0
Colombia	4.3	3.2	3.6	3.7	3.0	3.0	3.0	3.0
Ecuador	0.4	-0.2	0.4	1.2	1.7	1.4	1.2	1.1
Hong Kong, China	1.5	2.4	3.0	2.6	2.6	2.5	2.5	2.5
India	3.6	3.4	3.4	4.1	4.1	4.0	4.0	4.0
Indonesia	3.8	3.2	3.2	3.3	3.1	3.1	3.0	3.0
Japan	0.5	1.0	1.0	1.3	0.7	1.2	1.3	1.3
Korea	1.9	1.5	0.5	0.9	1.4	1.8	1.9	2.0
Laos	0.7	2.0	3.1	3.3	3.1	3.1	3.1	3.1
Malaysia	3.8	1.0	1.0	2.1	2.2	2.2	2.3	2.3
Mexico	6.0	4.9	3.8	3.1	3.0	3.0	3.0	3.0
Myanmar	4.6	5.9	7.8	6.7	6.5	5.9	5.5	5.5
New Zealand	1.9	1.6	1.4	1.9	2.0	2.0	2.0	2.0
Papua New Guinea	4.9	5.2	3.9	4.4	5.1	5.2	5.2	4.8
Peru	2.8	1.3	2.2	1.9	2.0	2.0	2.0	2.0
Philippines	2.9	5.2	2.5	2.3	3.1	3.0	3.0	3.0
Russia	3.7	2.9	4.7	3.5	3.9	4.0	4.0	4.0
Singapore	0.6	0.4	0.7	1.0	1.3	1.4	1.4	1.5
Chinese Taipei	1.1	1.5	0.8	1.1	1.4	1.4	1.4	1.4
Thailand	0.7	1.1	0.9	0.9	1.2	1.6	1.8	2.0
United States	2.1	2.4	1.8	2.3	2.4	2.3	2.3	2.3
Vietnam	3.5	3.5	3.6	3.8	3.8	3.9	4.0	4.0

	2017	2018	2019	2020	2021	2022	2023	2024
Asia-Pacific	2.1	2.3	2.1	2.3	2.5	2.5	2.6	2.6
Emerging	2.5	2.6	2.7	2.8	3.0	3.1	3.2	3.2
Advanced	1.8	2.1	1.6	2.0	2.0	2.1	2.1	2.1

2017 2018 2019 2020 2021 2022 2023 2024 Australia 5.0 3.1 2.0 2.7 3.1 3.4 3.1 3.1 Brunei Darussalam 5.7 4.6 32.5 12.9 4.2 -5.3 2.3 1.3 Cambodia 12.5 11.4 10.3 10.2 9.4 10.3 13.8 12.9 3.2 1.8 1.7 Canada 1.1 3.1 3.0 1.9 1.1 Chile -1.1 5.0 -2.2 1.1 2.8 4.1 4.1 4.1 9.1 4.0 2.3 3.0 3.8 3.9 3.9 3.9 China Colombia 2.5 3.9 4.4 4.7 4.3 4.1 3.2 2.6 Ecuador -0.2 -1.2 4.0 1.9 3.9 2.1 2.4 2.1 Hong Kong, China 5.9 3.8 -5.1 2.7 3.1 3.2 3.4 3.5 India 10.0 4.7 4.4 4.9 6.4 8.1 8.5 8.8 3.5 0.8 3.3 5.7 7.2 Indonesia 13.4 8.2 8.1 2.7 6.8 3.4 -1.6 0.3 1.5 2.7 2.6 Japan 2.5 3.5 -0.7 3.2 3.4 3.6 3.5 3.5 Korea 6.5 6.1 7.9 6.6 3.0 Laos 4.5 3.4 11.3 0.4 0.9 4.4 Malaysia 7.3 3.3 3.7 3.6 3.5 Mexico 4.2 5.7 3.4 2.0 3.5 4.2 4.6 4.6 Myanmar 4.0 20.7 -3.3 -0.2 2.6 2.4 8.0 3.0 New Zealand 1.8 3.1 3.8 3.3 3.7 4.3 4.0 4.4 Papua New Guinea 12.6 -13.8 12.7 0.9 0.0 1.2 0.8 0.7 Peru 8.0 1.6 -1.2 2.2 3.5 3.9 3.8 3.8 Philippines 23.5 9.8 2.2 5.0 7.3 8.2 6.7 5.1 Russia 7.2 4.7 1.3 3.6 3.4 2.7 2.8 2.7 5.7 -2.7 3.9 Singapore 5.2 0.9 3.5 3.9 3.9 Chinese Taipei 7.9 0.1 -1.2 1.5 1.6 1.6 1.6 1.6 Thailand 5.4 4.2 -1.3 5.2 4.7 4.3 4.0 4.0 United States 3.5 3.0 0.3 2.9 3.0 3.1 3.2 3.1 Vietnam 17.0 12.2 11.7 13.1 12.8 12.6 12.6 12.1

Table 3: Growth of Exports of Goods and Services (year-on-year %)

	2017	2018	2019	2020	2021	2022	2023	2024
Asia-Pacific	6.3	4.0	0.9	3.0	3.8	4.0	4.1	4.1
Emerging	8.8	4.8	2.6	3.9	4.9	5.2	5.3	5.3
Advanced	4.3	3.3	-0.5	2.3	2.8	2.9	3.1	3.0

Table 4: Growth of Imports of Goods and Services (year-on-year %)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	7.7	4.0	-1.2	1.9	2.7	2.9	2.9	2.9
Brunei Darussalam	1.3	28.1	6.9	35.7	14.9	2.7	0.9	1.1
Cambodia	7.0	12.7	15.9	11.7	10.3	9.4	8.8	7.6
Canada	4.2	2.9	0.7	1.7	2.5	2.3	2.3	2.3
Chile	4.7	7.6	-0.6	1.9	3.5	4.7	4.5	4.6
China	7.1	7.9	-2.0	2.5	5.0	4.9	4.6	4.2
Colombia	1.2	7.9	5.1	4.9	4.6	4.2	4.0	3.6
Ecuador	14.3	7.5	-2.6	-0.5	0.6	2.0	1.6	1.6
Hong Kong, China	6.6	4.6	-6.3	2.4	3.2	3.4	3.6	3.7
India	13.8	4.3	4.1	7.6	7.4	9.0	9.0	9.0
Indonesia	10.5	12.8	1.3	3.0	5.3	5.6	6.3	9.2
Japan	3.4	3.3	-0.8	1.3	2.3	2.5	2.3	2.3
Korea	8.9	0.8	-0.7	2.3	4.0	4.1	4.1	4.1
Laos	6.6	0.3	9.1	6.5	6.7	6.4	5.2	4.8
Malaysia	8.5	4.1	-1.7	2.4	4.2	3.9	4.0	4.0
Mexico	6.4	6.2	0.1	2.3	3.4	4.2	4.6	4.5
Myanmar	16.9	6.9	-2.7	0.4	2.8	4.0	8.7	3.6
New Zealand	6.9	5.8	2.7	4.0	3.7	3.5	3.3	3.5
Papua New Guinea	30.4	-11.5	3.4	9.2	4.3	3.1	2.4	1.9
Peru	4.5	1.6	0.7	4.4	4.7	4.7	4.1	4.3
Philippines	21.2	11.2	2.8	6.5	5.6	6.9	6.3	4.4
Russia	16.7	2.6	1.5	3.6	2.9	3.4	3.6	3.5
Singapore	7.5	4.7	-2.8	1.4	4.0	4.1	4.1	4.1
Chinese Taipei	4.3	0.3	-2.1	2.0	2.0	2.0	2.0	2.0
Thailand	6.2	8.6	-0.2	8.1	5.7	5.1	5.0	4.6
United States	4.7	4.4	2.1	3.1	2.8	2.1	2.4	2.1
Vietnam	18.4	9.8	10.0	13.2	12.8	12.7	12.5	12.1

	2017	2018	2019	2020	2021	2022	2023	2024
Asia-Pacific	7.2	5.2	0.0	3.2	4.1	4.2	4.2	4.1
Emerging	9.4	7.1	0.3	4.3	5.5	5.8	5.7	5.6
Advanced	5.4	3.6	-0.3	2.3	2.9	2.7	2.8	2.7

Table 5: Current Account Balance (% of GDP)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	-2.6	-2.1	-0.3	-1.7	-1.6	-1.6	-1.7	-1.9
Brunei Darussalam	16.4	7.9	8.5	12.0	13.8	15.9	17.6	19.8
Cambodia	-7.9	-11.3	-12.5	-12.3	-11.6	-11.0	-10.1	-8.8
Canada	-2.8	-2.6	-1.9	-1.7	-1.7	-1.7	-1.6	-1.6
Chile	-2.1	-3.1	-3.5	-2.9	-2.5	-2.2	-2.0	-1.7
China	1.6	0.4	1.0	0.9	0.8	0.6	0.5	0.4
Colombia	-3.3	-4.0	-4.2	-4.0	-3.8	-3.6	-3.6	-3.7
Ecuador	-0.5	-1.4	0.1	0.7	1.4	1.4	1.6	1.7
Hong Kong, China	4.6	4.3	5.5	5.1	4.7	4.4	4.2	4.0
India	-1.8	-2.1	-2.0	-2.3	-2.3	-2.4	-2.4	-2.5
Indonesia	-1.6	-3.0	-2.9	-2.7	-2.7	-2.6	-2.6	-2.5
Japan	4.2	3.5	3.3	3.3	3.3	3.4	3.5	3.7
Korea	4.6	4.4	3.2	2.9	2.9	2.9	2.9	2.9
Laos	-10.6	-12.0	-12.1	-12.0	-11.1	-10.8	-10.9	-10.9
Malaysia	2.8	2.1	3.1	1.9	1.9	1.7	1.3	0.9
Mexico	-1.7	-1.8	-1.2	-1.6	-1.7	-1.8	-1.9	-2.0
Myanmar	-6.5	-4.2	-4.8	-4.9	-4.6	-4.7	-4.7	-4.6
New Zealand	-2.9	-3.8	-4.1	-4.3	-4.2	-4.2	-4.3	-4.3
Papua New Guinea	28.7	27.4	23.0	24.8	24.2	23.7	22.9	22.2
Peru	-1.2	-1.6	-1.9	-2.0	-1.8	-1.8	-1.8	-1.8
Philippines	-0.7	-2.6	-2.0	-2.3	-2.2	-2.1	-2.0	-1.9
Russia	2.1	6.8	5.7	3.9	3.4	3.3	3.2	3.2
Singapore	16.4	17.9	16.5	16.6	16.3	15.9	15.3	15.0
Chinese Taipei	14.5	12.2	11.4	10.8	10.1	9.5	8.8	8.0
Thailand	9.7	6.4	6.0	5.4	4.9	4.4	3.9	3.7
United States	-2.3	-2.4	-2.5	-2.6	-2.5	-2.4	-2.4	-2.3
Vietnam	2.1	2.4	2.2	1.9	1.7	1.4	1.2	1.0

	2017	2018	2019	2020	2021	2022	2023	2024
Asia-Pacific	0.2	-0.2	-0.1	-0.3	-0.3	-0.3	-0.4	-0.4
Emerging	0.9	0.3	0.6	0.3	0.2	0.1	-0.1	-0.1
Advanced	-0.3	-0.5	-0.6	-0.8	-0.7	-0.7	-0.6	-0.6

Table 6: GDP & CPI Weights (% of total)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	2.70	2.61	2.43	2.31	2.29	2.28	2.27	2.25
Brunei Darussalam	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Cambodia	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05
Canada	3.22	3.14	3.06	3.04	3.04	3.03	3.02	3.02
Chile	0.54	0.55	0.52	0.52	0.52	0.52	0.52	0.52
China	23.51	24.55	24.99	25.64	26.35	27.02	27.65	28.27
Colombia	0.61	0.61	0.58	0.58	0.58	0.58	0.58	0.58
Ecuador	0.20	0.20	0.19	0.18	0.18	0.18	0.17	0.17
Hong Kong, China	0.67	0.67	0.66	0.65	0.64	0.63	0.63	0.63
India	5.17	4.99	5.19	5.38	5.58	5.79	6.02	6.24
Indonesia	1.98	1.88	1.96	2.02	2.06	2.09	2.12	2.15
Japan	9.47	9.13	9.11	9.09	8.89	8.72	8.58	8.44
Korea	3.16	3.16	2.88	2.73	2.71	2.69	2.68	2.68
Laos	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Malaysia	0.62	0.66	0.65	0.64	0.65	0.66	0.67	0.68
Mexico	2.25	2.24	2.25	2.22	2.19	2.17	2.15	2.13
Myanmar	0.12	0.13	0.12	0.12	0.13	0.13	0.13	0.14
New Zealand	0.39	0.37	0.36	0.36	0.37	0.37	0.37	0.37
Papua New Guinea	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Peru	0.42	0.41	0.40	0.40	0.40	0.40	0.40	0.40
Philippines	0.61	0.61	0.63	0.64	0.66	0.69	0.71	0.74
Russia	3.08	3.04	2.89	2.78	2.73	2.68	2.65	2.62
Singapore	0.66	0.67	0.64	0.62	0.61	0.60	0.60	0.59
Chinese Taipei	1.12	1.08	1.04	1.01	1.01	1.01	1.01	1.01
Thailand	0.89	0.93	0.94	0.94	0.94	0.94	0.95	0.94
United States	38.04	37.79	37.89	37.49	36.85	36.15	35.45	34.76
Vietnam	0.43	0.44	0.46	0.48	0.49	0.50	0.52	0.53

Table 7: Trade Weight (% of total)

	2017	2018	2019	2020	2021	2022	2023	2024
Australia	2.52	2.50	2.49	2.42	2.38	2.35	2.32	2.30
Brunei Darussalam	0.05	0.04	0.04	0.05	0.08	0.07	0.07	0.07
Cambodia	0.14	0.14	0.16	0.17	0.18	0.19	0.19	0.20
Canada	4.55	4.39	4.30	4.20	4.13	4.06	3.98	3.90
Chile	0.68	0.65	0.66	0.64	0.63	0.63	0.63	0.62
China	20.79	21.10	21.26	21.25	21.31	21.28	21.20	21.08
Colombia	0.45	0.43	0.42	0.42	0.43	0.42	0.42	0.42
Ecuador	0.19	0.19	0.19	0.19	0.18	0.18	0.17	0.17
Hong Kong, China	5.73	5.72	5.67	5.59	5.53	5.49	5.46	5.43
India	4.54	4.78	4.97	5.23	5.44	5.66	5.90	6.16
Indonesia	1.65	1.74	1.79	1.84	1.92	2.00	2.06	2.16
Japan	7.51	7.41	7.28	7.17	7.03	6.94	6.84	6.73
Korea	5.49	5.37	5.27	5.24	5.18	5.16	5.14	5.12
Laos	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Malaysia	2.13	2.16	2.19	2.19	2.19	2.18	2.18	2.17
Mexico	3.93	3.87	3.91	3.88	3.86	3.85	3.86	3.87
Myanmar	0.16	0.17	0.17	0.17	0.17	0.17	0.17	0.17
New Zealand	0.46	0.45	0.45	0.44	0.44	0.44	0.44	0.43
Papua New Guinea	0.06	0.07	0.05	0.06	0.05	0.05	0.05	0.05
Peru	0.43	0.43	0.42	0.42	0.42	0.42	0.42	0.42
Philippines	0.95	1.10	1.14	1.25	1.36	1.39	1.43	1.47
Russia	3.11	3.21	3.22	3.21	3.23	3.26	3.29	3.32
Singapore	4.46	4.44	4.43	4.33	4.32	4.32	4.32	4.32
Chinese Taipei	2.92	2.91	2.79	2.69	2.68	2.62	2.55	2.49
Thailand	2.49	2.50	2.56	2.60	2.62	2.64	2.65	2.67
United States	22.58	22.02	21.85	21.78	21.49	21.26	21.06	20.83
Vietnam	1.98	2.18	2.30	2.51	2.71	2.91	3.14	3.39



ANNEX RESULTS OF ASIA-PACIFIC POLICY COMMUNITY SURVEY

This annex presents the findings of a survey of the Asia-Pacific policy community conducted by the Pacific Economic Cooperation Council from 5 August to 20 September 2019. The survey was disseminated through PECC member committees, as well as the APEC Policy Support Unit, the Papua New Guinea Committee on APEC Policy Issues (CAPI), and the Russian Foreign Trade Academy and Russian APEC Study Center.

This is not a survey of public opinion but rather, a survey of those whose views influence policymaking, especially at the regional level. As some of the questions tend to be technical, they require a relatively deep knowledge of developments at regional level. However, we do believe that those surveyed include those who are responsible for influencing and often making decisions on various aspects of their economy's positions within different regional groups.

The guidance for identifying panelists is as follows:

GOVERNMENT

Panelists should be either decision-makers or senior advisors to decision-makers. As a guide, the government respondents in previous years included a number of former and current Ministers, Deputy and Vice-Ministers, Central Bank Governors and their advisors for Asia- Pacific issues, current APEC Senior Officials, and a number of former APEC Senior Officials.

BUSINESS

Panelists should be from companies who have operations in a number of Asia-Pacific economies or conduct business with a number of partners from the region. This might include each economy's current ABAC members as well as past ABAC members. In last year's survey, these included CEOs, vice presidents for Asia-Pacific operations, and directors of chambers of commerce.

NON-GOVERNMENT: RESEARCH COMMUNITY/CIVIL SOCIETY/MEDIA

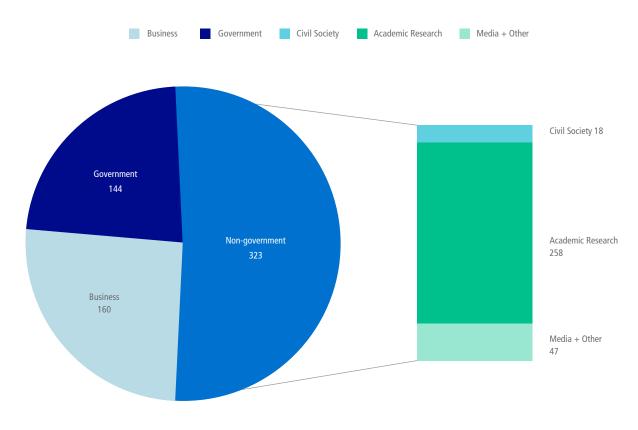
Panelists should be well-versed in Asia-Pacific affairs, being the type of people governments, businesses, and the media would tap into to provide input on issues related to Asia-Pacific cooperation. These included presidents of institutes concerned with Asia-Pacific issues, heads of departments, senior professors, and correspondents covering international affairs.

RESPONDENT BREAKDOWN

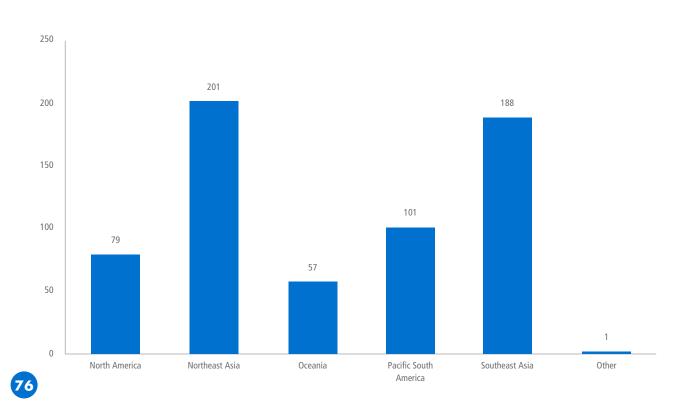
We do not disaggregate results for each economy but rather by sub-regions – Northeast Asia, North America, Oceania, Pacific South America, and Southeast Asia.

- North America: Canada, Mexico, and the United States
- Northeast Asia: China, Hong Kong (China), Japan, Korea, lia, Russia, and Chinese Taipei
- Oceania: Australia, New Zealand, and Papua New Guinea
- Pacific South America: Chile, Colombia, Ecuador, and Peru
- Southeast Asia: Brunei Darussalam, India, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam





BREAKDOWN OF RESPONDENTS BY SUB-REGION



1. What are your expectations for economic growth over the next 12 months compared to the last year for the following economies/regions? Please select/tick the appropriate box.

	Much weaker	Somewhat weaker	About the same	Somewhat stronger	Much stronger	Don't know	Total
China	12.8%	56.5%	16.5%	8.6%	5.3%	0.3%	100.0%
India	3.2%	27.1%	33.7%	27.1%	4.5%	4.3%	100.0%
Japan	3.0%	32.8%	46.6%	13.0%	3.2%	1.4%	100.0%
Russia	4.5%	37.4%	38.9%	10.8%	2.7%	5.6%	100.0%
Southeast Asia	3.2%	26.9%	26.4%	35.1%	7.1%	1.3%	100.0%
Oceania	3.9%	26.7%	49.9%	11.2%	1.0%	7.3%	100.0%
The United States	9.8%	51.6%	21.8%	13.1%	3.0%	0.6%	100.0%
The European Union	8.8%	53.3%	26.6%	9.0%	1.4%	1.0%	100.0%
The World economy	4.6%	63.3%	22.3%	8.0%	1.3%	0.5%	100.0%

2. Please select the top five risks to growth for your economy over the next 2-3 years. Please select ONLY five (5) risks, using a scale of 1-5. Please write 1 for the most serious risk, 2 for the next most serious risk, 3 for the next third highest risk, 4 for the fourth highest risk and 5 for the least serious risk.

	1	2	3	4	5	Total
A health pandemic	0.3%	0.9%	0.5%	1.0%	1.7%	4.5%
Natural disasters	1.6%	1.9%	2.2%	2.9%	2.4%	11.0%
Climate change	5.5%	4.1%	2.8%	5.9%	7.4%	25.7%
Energy security	0.5%	1.2%	1.4%	2.4%	3.8%	9.3%
Fluctuation of oil prices	2.4%	1.9%	4.7%	3.6%	2.8%	15.3%
Food security	0.2%	2.1%	1.2%	1.4%	2.6%	7.4%
Lack of political leadership	8.3%	5.5%	6.4%	7.9%	7.1%	35.2%
Disappearing jobs	1.9%	3.8%	2.6%	3.6%	4.0%	15.9%
Shortage of available talent/skills	1.6%	2.9%	2.9%	3.1%	4.0%	14.5%
Lack of adequate infrastructure	2.1%	2.2%	3.8%	4.0%	6.4%	18.4%
Failure to implement structural reforms	8.1%	4.5%	6.0%	7.2%	5.7%	31.6%
Increased protectionism and trade wars	31.4%	15.2%	8.4%	5.9%	2.9%	63.8%
Increasingly restrictive digital environment	0.5%	1.2%	1.6%	1.7%	2.9%	7.9%
Unfavorable currency realignments	1.2%	2.6%	2.4%	2.9%	4.7%	13.8%
A slowdown in the US economy	8.6%	9.0%	13.3%	7.2%	6.2%	44.3%
A slowdown in the Chinese economy	5.9%	16.2%	12.4%	10.7%	3.3%	48.4%
A slowdown in the Japanese economy	0.3%	0.2%	1.4%	1.6%	1.7%	5.2%
Sharp fall in asset prices	0.7%	1.2%	2.6%	2.6%	5.2%	12.2%
Cyber attacks	1.4%	2.6%	2.4%	3.3%	4.5%	14.1%
Slowdown in world trade growth	11.0%	12.8%	12.8%	10.9%	7.1%	54.5%
Corruption	4.5%	2.9%	3.8%	4.0%	6.0%	21.2%
Unsustainable debt	1.7%	3.6%	3.4%	4.1%	4.1%	17.1%
Inflation	0.3%	1.6%	1.0%	2.1%	3.6%	8.6%

3. In 2020 APEC economies will reach the Bogor Goals deadline they set for 'free and open trade in the Asia-Pacific', emphasizing trade. In thinking about the future for economic cooperation in the region, what do you think the main emphasis should be? Please rank each option in order of importance, with 1 being the most important, 2 the 2nd most important and 3 the third most important.

	1	2	3	Don't know	Total
Continuing to reduce trade barriers and promoting a concept of free trade in the Asia-Pacific region	48.3%	24.4%	27.3%	0.0%	100.0%
Promoting economic development and growth in the region, particularly less developed economies and disadvantaged sectors in developed economies, through all sustainable means	26.8%	47.2%	25.9%	0.0%	100.0%
Cooperating together to provide leadership on critical global issues, for example, climate change and other environmental challenges, health issues, trade, cyber-security	24.8%	29.1%	46.1%	0.0%	100.0%

4. Further thinking about the future of regional cooperation, how would you rank the importance of the following areas?

	Not Important	Slightly Important	Moderately Important	Important	Very Important	Don't know	Total
Robust dialogue and effective cooperation among member economies	0.9%	2.7%	13.2%	32.6%	49.9%	0.7%	100.0%
Effective and broader stakeholder engagement	1.6%	5.5%	21.0%	44.9%	26.4%	0.5%	100.0%
Initiatives to enhance economic participation by all segments of society and reduce income disparities	0.7%	6.0%	16.2%	40.7%	35.5%	0.9%	100.0%
Long term policy initiatives that promote environmental sustainability	0.9%	4.6%	16.9%	36.7%	39.5%	1.4%	100.0%
The principle of open regionalism	2.0%	9.1%	22.2%	36.5%	26.1%	4.1%	100.0%
Policies that will allow all sections of society to take full advantage of the digital economy and other technologies	0.0%	4.8%	18.8%	35.2%	38.9%	2.3%	100.0%
Structural reforms that drive growth	0.4%	3.8%	13.2%	37.2%	41.0%	4.5%	100.0%
Deeper and broader connectivity across borders	0.7%	4.8%	18.4%	39.0%	35.1%	2.0%	100.0%
Intensified efforts to fully achieve the Bogor Goals	1.6%	8.5%	23.2%	39.9%	21.2%	5.6%	100.0%
Strong APEC support for the rules based multilateral trading system	0.5%	5.7%	13.5%	30.8%	45.6%	3.7%	100.0%
High-quality trade, investment and economic partnerships among members	0.9%	3.5%	12.5%	35.5%	43.3%	4.2%	100.0%

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Don't know	Total
APEC should set a goal of a unified Asia- Pacific digital market by 2030	0.7%	7.5%	25.1%	39.8%	23.9%	3.0%	100.0%
APEC is as important or more important today compared to 1989 when it was created	1.4%	10.7%	17.9%	40.3%	27.7%	2.0%	100.0%
APEC urgently needs to expand its focus from policies that promote manufacturing and the growth of trade in goods to policies that promote structural reform, digital technologies and the growth of trade in services	0.2%	3.2%	12.3%	43.0%	39.2%	2.1%	100.0%
APEC developing member economies have achieved the Bogor Goals of free and open trade	5.3%	31.9%	28.5%	22.1%	3.7%	8.4%	100.0%
APEC industrialized member have achieved the Bogor Goals of free and open trade	3.9%	33.0%	28.0%	22.1%	4.3%	8.6%	100.0%
APEC should expand its membership	5.7%	16.1%	34.9%	27.9%	12.3%	3.0%	100.0%
APEC should begin the process of negotiations on achieving an FTAAP	2.3%	7.1%	20.5%	46.6%	19.2%	4.3%	100.0%

5. Please indicate your agreement or disagreement with the following statements:

6. In 1994 in the Bogor declaration, regional leaders set the objective of APEC leading the way in strengthening the open multilateral trading system. They further called for the successful launching of the World Trade Organization (WTO). How important do you think each of the following should be to APEC's work on trade after 2020?

	Not Important	Slightly Important	Moderately Important	Important	Very Important	Don't know	Total
Support for the rules-based multilateral trading system	0.9%	2.5%	5.8%	35.1%	53.6%	2.0%	100.0%
Addressing longstanding issues by contributing to defining a new WTO work programme	1.1%	5.8%	16.4%	44.9%	28.8%	2.9%	100.0%
Addressing new ones as they arise, by contributing to defining a new WTO work programme	1.3%	6.2%	21.9%	44.8%	22.9%	2.9%	100.0%
Proactively participating in emerging plurilateral groupings in the WTO	3.6%	7.1%	21.9%	41.3%	21.5%	4.6%	100.0%
Contributing to development of proposals for reform of the WTO, consistent with its fundamental principles	2.0%	5.1%	15.0%	41.4%	34.4%	2.0%	100.0%
Strengthening its own consultative mechanisms and seeking to build common understandings to avoid and resolve trade disputes between members.	2.2%	6.5%	13.6%	39.6%	35.6%	2.4%	100.0%
Developing regional and sub-regional trade architectures that serve as benchmarks for the multilateral system	3.5%	6.9%	21.2%	40.4%	24.3%	3.7%	100.0%
Reversing trends to increased use of unilateral discriminatory trade restrictions	3.3%	3.7%	13.3%	35.0%	41.1%	3.7%	100.0%
Improved compliance with notification requirements in the WTO	1.3%	6.6%	24.3%	41.0%	20.7%	6.2%	100.0%
Making the multilateral trading system more responsive to the needs of developing economies	1.4%	4.3%	14.9%	37.0%	40.2%	2.2%	100.0%

7. How important do you think each of the following are for APEC to address in order to promote people-oriented economic growth?

	Not Important	Slightly Important	Moderately Important	Important	Very Important	Don't know	Total
Promoting access to new opportunities and employment through structural reforms	0.6%	1.7%	12.9%	41.5%	42.6%	0.7%	15.7%
Enhancing labor force participation	0.7%	3.7%	22.0%	47.2%	23.9%	2.4%	16.1%
Deepening regional integration with a focus on issues important for MSMEs	0.9%	4.5%	22.3%	44.2%	24.7%	3.5%	16.3%
Accelerating investment in infrastructure in terms of both quantity and quality	0.2%	2.6%	14.3%	42.5%	39.3%	1.1%	15.3%
Accelerating financial infrastructure development, particularly digital infrastructure	0.4%	3.0%	14.1%	44.0%	36.7%	1.9%	16.3%
Enhancing availability of microfinance and supply- chain finance for MSMEs	0.7%	8.3%	17.9%	42.0%	28.1%	3.0%	15.9%
Enhancing the social empowerment of women, youth, the elderly, persons with disabilities, rural communities and other underrepresented groups	1.1%	9.1%	19.0%	39.4%	29.9%	1.5%	15.9%
Strengthening social safety nets	1.5%	7.2%	23.3%	37.2%	29.3%	1.5%	16.1%
Improved accessibility and relevance of education for all sections of society with an emphasis on adapting to the demands of digital technologies	0.7%	2.2%	11.1%	35.5%	49.0%	1.5%	15.9%
Ensure accessibility of affordable health services to all sections of society	0.9%	6.3%	16.7%	37.8%	37.6%	0.7%	16.1%
Expanded and better targeted adjustment policies	2.2%	5.7%	26.4%	42.0%	18.7%	5.0%	15.9%
Fairer tax systems	2.2%	8.9%	27.0%	35.1%	24.0%	2.8%	16.5%
Ensure access to basic services (e.g. electricity, water) for all sections of society	0.7%	4.1%	13.4%	31.3%	49.2%	1.3%	15.5%
Education and training strategies to upskill the workforce	0.2%	3.0%	9.7%	29.6%	56.1%	1.5%	16.5%

8. Some argue that maintaining future growth momentum will depend on meaningful structural reforms – as defined by APEC leaders: "institutional frameworks, regulations and government policy so that barriers to market-based incentives, competition, regional economic integration and improved economic performance are minimized". Please rate how important each of the following are for the future growth of your economy.

	Not Important	Slightly Important	Moderately Important	Important	Very Important	Don't know	Total
Structural reform for progressing liberalisation, facilitation and expansion of services	1.8%	3.1%	18.0%	41.8%	34.3%	0.9%	15.5%
Structural reform for progressing liberalisation, facilitation and expansion of agricultural trade	3.1%	9.4%	24.9%	35.9%	25.2%	1.5%	15.5%
Structural reform for progressing liberalisation, facilitation and more efficient flow of foreign investment	1.3%	6.1%	16.2%	44.1%	31.4%	0.9%	15.7%
Regulatory cooperation and development of compatible standards to improve connectivity and efficient investment in infrastructure	0.6%	5.7%	12.7%	49.4%	30.6%	0.9%	15.7%
Structural reforms that contribute to the achievement of APEC's inclusion and sustainability objectives	1.5%	5.7%	23.0%	40.8%	26.7%	2.4%	15.3%
Structural reforms that enhance your economy's capacity to respond to opportunities associated with digital technologies	0.7%	4.1%	10.3%	39.1%	43.9%	1.8%	15.7%
Structural reforms to enhance competition in key sectoral markets such as telecommunications	1.1%	5.5%	19.0%	43.6%	29.4%	1.3%	15.9%
Structural reform work program that connects work by the APEC finance ministers process with the trade and investment track	2.8%	6.5%	20.3%	42.1%	23.7%	4.6%	15.9%

9. Please indicate the level of agreement or disagreement that you have with the following statements on sustainability.

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Don't know	Total
Sustainability is the greatest existential challenge facing humanity today.	1.3%	3.1%	15.3%	37.9%	41.1%	1.3%	100.0%
APEC must ensure that a sustainability framework is built into its programme areas	0.7%	1.9%	12.2%	51.8%	32.5%	0.9%	100.0%
APEC should provide leadership for global climate change and environmental initiatives	1.8%	6.5%	17.3%	41.3%	31.9%	1.1%	100.0%
APEC should ensure that its sustainability initiatives contribute effectively to the Sustainable Development Goals agreed by the United Nations in 2015	1.7%	1.3%	13.7%	48.8%	32.9%	1.7%	100.0%
APEC members should commit to mutual review by its members of their individually determined climate change commitments	2.4%	6.7%	20.8%	46.9%	21.3%	1.9%	100.0%
APEC should have a group dedicated to addressing sustainability issues	1.7%	4.4%	20.5%	42.9%	29.2%	1.3%	100.0%
APEC's value add on these issues should be to promote policies responses that improve sustainability amongst its member economies in such area as environmentally harmful, fossil fuel and fisheries subsidies	2.2%	4.8%	16.8%	46.0%	28.8%	1.3%	100.0%

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	Don't know	Total
APEC should take a lead to avoid the fragmentation of the digital economy	0.6%	3.1%	14.4%	49.8%	29.6%	2.4%	100.0%
APEC should develop common priorities and responses by members on critical issues associated with related technologies such as artificial intelligence (AI), robotics, block-chain, and quantum computing, as well as other path- breaking technologies	0.6%	4.6%	19.8%	48.8%	24.4%	1.8%	100.0%
APEC should provide a platform to help develop members' capacity to appropriately regulate emerging technologies	0.6%	3.7%	13.5%	51.5%	29.3%	1.5%	100.0%
APEC needs to build more momentum to ensure the freedom of cross-border data flows	0.6%	4.1%	20.1%	46.0%	26.8%	2.4%	100.0%
APEC should work to develop a common approach for the protection of privacy	0.4%	2.8%	16.9%	42.0%	36.7%	1.3%	100.0%
APEC members should work to have a coherent approach to taxation in the digital age	1.3%	4.4%	21.1%	42.7%	27.5%	3.0%	100.0%
APEC should encourage its member economies to implement policies that reduce excessive market power and promote competition in the digital environment	1.1%	3.7%	13.5%	45.8%	32.5%	3.3%	100.0%

10. Please indicate your level of agreement with the following statements regarding the digital economy.

11. In 2009 APEC members committed to take concrete steps toward realization of a Free Trade Area of the Asia-Pacific (FTAAP), what do you think is the best way towards its achievement? Please rank each option in order of your preference, with 1 being the your least preferred choice and 4 your most preferred.

	1 – least preferred	2	3	4 – most preferred	Don't know	Total
Expanding the membership of the CPTPP to include all APEC members	15.6%	20.3%	29.2%	25.3%	9.5%	100.0%
The completion of the ongoing RCEP negotiations and its expansion to include all APEC members	10.4%	20.4%	35.4%	23.7%	10.0%	100.0%
The launch of a standalone negotiations for a Free Trade Agreement of the Asia-Pacific	21.6%	16.9%	31.0%	23.4%	7.1%	100.0%
The eventual convergence in terms of product coverage and level of liberalization in various regional agreements such as the ASEAN+1, CPTPP, RCEP, and Pacific Alliance amongst others	10.0%	14.7%	34.5%	32.5%	8.3%	100.0%

12. What should be the priority issues for Asia-Pacific free trade agreements and an eventual Free Trade Area of the Asia-Pacific? Please rate each of the following using a scale of 1-5, with 1 representing a low priority and 5 a high priority.

	1 – Iow priority	2	3	4	5 – high priority	Don't know	Total
Rules of Origin and Origin Procedures	3.1%	7.8%	28.0%	25.8%	30.5%	4.7%	100.0%
Agriculture	2.3%	7.4%	32.6%	28.3%	26.4%	2.9%	100.0%
Anticorruption	3.7%	9.0%	27.3%	22.0%	34.8%	3.1%	100.0%
Competition Policy	1.4%	5.8%	25.0%	40.0%	25.2%	2.6%	100.0%
Consultations and Dispute Settlement	2.1%	4.5%	22.9%	34.4%	34.0%	2.1%	100.0%
Cooperation, Development and Capacity Building	1.6%	6.4%	23.0%	35.5%	31.2%	2.3%	100.0%
Customs Administration and Trade Facilitation	1.0%	4.2%	18.7%	37.6%	36.1%	2.3%	100.0%
Digital Trade	1.0%	3.3%	17.7%	37.2%	39.2%	1.7%	100.0%
Electronic Commerce	0.8%	3.5%	14.9%	39.4%	39.6%	1.9%	100.0%
Environment	2.5%	5.5%	22.6%	31.4%	35.9%	2.1%	100.0%
Financial Services	1.2%	3.7%	24.5%	42.3%	26.6%	1.8%	100.0%
Good Regulatory Practices	0.6%	2.9%	23.2%	38.5%	32.4%	2.4%	100.0%
Government Procurement	2.8%	9.4%	36.0%	34.2%	15.3%	2.4%	100.0%
Intellectual Property	0.6%	2.3%	21.9%	37.3%	35.7%	2.1%	100.0%
Investment	0.6%	2.1%	15.4%	39.5%	40.2%	2.1%	100.0%
Labor	2.0%	7.9%	25.9%	36.0%	25.5%	2.6%	100.0%
Macroeconomic Policies and Exchange Rate Matters	5.9%	10.8%	32.8%	28.1%	18.5%	3.9%	100.0%
Movement of Natural Persons	2.6%	9.3%	34.6%	29.9%	19.5%	4.1%	100.0%
Sanitary and Phytosanitary Measures	1.4%	7.8%	31.5%	35.8%	19.4%	4.1%	100.0%
Small and Medium-Sized Enterprises	1.6%	8.8%	22.1%	38.7%	26.6%	2.3%	100.0%
Standards, Technical Regulations and Conformity Assessment Procedures	1.4%	5.5%	25.8%	41.8%	21.7%	3.9%	100.0%
State-Owned Enterprises and Designated Monopolies	5.9%	12.3%	29.7%	31.4%	17.8%	2.9%	100.0%
Technical Barriers to Trade	1.0%	3.9%	17.5%	40.8%	34.4%	2.5%	100.0%
Telecommunications	0.8%	6.1%	28.5%	38.7%	23.5%	2.4%	100.0%
Textile and Apparel Goods	5.3%	13.6%	40.7%	26.8%	10.6%	3.0%	100.0%
Trade in Goods	1.4%	4.9%	26.0%	35.2%	30.3%	2.3%	100.0%
Trade in Services	1.0%	1.7%	18.2%	35.8%	40.6%	2.7%	100.0%
Trade Remedies	1.2%	4.9%	31.2%	38.4%	19.0%	5.3%	100.0%
Transparency and Anti-Corruption	2.0%	5.9%	20.9%	31.8%	36.3%	3.1%	100.0%
Trade and Gender	8.5%	17.1%	33.6%	24.9%	11.3%	4.6%	100.0%

13. What do you think should be the top 5 priorities for APEC Leaders to address at their upcoming meeting in Santiago? Please select ONLY five (5) issues, using a scale of 1-5, please write 1 for the issue you think is most important, 2 for the next most important issue, 3 for the third most important, 4 for the fourth most important and 5 for the fifth most important.

	1 - most important	2	3	4	5 - least important	Total
The China-US trade conflict and rising trade tensions	24.8%	11.6%	8.5%	5.5%	6.8%	57.2%
The future of the WTO and multilateral trading system	9.1%	17.0%	9.1%	10.2%	7.8%	53.2%
Progress towards the Bogor Goals and the Free Trade Area of the Asia-Pacific (FTAAP)	9.3%	7.4%	9.7%	5.9%	8.0%	40.2%
Implementation of the APEC Roadmap on Services Competitiveness	1.3%	2.5%	4.0%	4.5%	4.4%	16.7%
Progress on the APEC Connectivity Blueprint	1.5%	3.8%	3.2%	4.4%	4.2%	17.0%
The emergence of anti-globalization & anti-trade sentiments	9.8%	9.3%	11.0%	8.7%	7.6%	46.4%
The implementation of APEC's agenda on structural reforms	3.6%	5.9%	7.0%	7.2%	8.1%	31.8%
The reform of regional institutional architecture including APEC membership	1.1%	2.8%	4.4%	4.5%	5.3%	18.2%
Climate change cooperation	8.7%	6.1%	5.9%	8.3%	7.6%	36.6%
Combatting cybersecurity	2.3%	3.2%	3.0%	4.5%	3.6%	16.7%
The future of work and labor markets	4.2%	5.1%	6.4%	4.5%	5.5%	25.8%
Improving women's participation in the economy	2.8%	2.8%	5.5%	2.7%	4.7%	18.6%
The implementation of the APEC Roadmap on the Internet and Digital Economy and the APEC Action Agenda for the Digital Economy	5.5%	6.8%	8.3%	10.2%	7.6%	38.4%
An APEC agenda beyond 2020	7.4%	8.3%	6.8%	8.9%	11.2%	42.6%
Progress on the APEC growth strategy to promote balanced, inclusive, sustainable, innovative and secure growth	8.5%	7.4%	7.2%	9.8%	7.8%	40.7%

MEMBER COMMITTEES

PECC CO-CHAIRS

Ambassador Donald CAMPBELL and Ambassador SU Ge

CONTACTS:

Ms. Serena KO Program Manager Asia Pacific Foundation of Canada Email: serena.ko@asiapacific.ca

c/o Ms. HE Xilin

Research Assistant China National Committee for Pacific Economic Cooperation (CNCPEC) Email: hexilin@ciis.org.cn

AUSTRALIA

Australian Pacific Economic Cooperation Committee (AUSPECC)

CHAIR:

Mr. Ian BUCHANAN Senior Executive Adviser PwC Strategy& (ANZSEA) Pty Ltd Email: buchanan.ianc@gmail.com

SECRETARIAT:

Ms. Bonnie RIVENDELL The Australian APEC Study Centre Email: bonnie@apec.org.au

ADDRESS:

c/o The Australian APEC Study Centre RMIT University Building 69, 50 Cardigan St Carlton VIC 3053 Australia Tel: +61 3 9925 5464 Email: auspecc@apec.org.au https://www.apec.org.au/auspecc

BRUNEI DARUSSALAM

Brunei Darussalam National Committee for Pacific Economic Cooperation (BDCPEC)

CHAIR:

Dr. MAY FAE'ZAH Ahmad Ariffin Permanent Secretary (Economy) Ministry of Finance and Economy

ALTERNATE CHAIR:

Ms. NURUSSA'ADAH Muharram Acting Director International Trade and Affairs Division Ministry of Finance and Economy

SECRETARIAT:

Ms. SYAZWANA Harun Email: Syazwana.harun@mofe.gov.bn

ADDRESS:

Brunei Darussalam National Committee for Pacific Economic Cooperation c/o Ministry of Finance and Economy Commonwealth Drive Bandar Seri Begawan BB3910, Brunei Darussalam Tel: +673 238 0999 Fax: +673 32383954 Email: apec.brunei@mofe.gov.bn

CANADA

Canadian National Committee for Pacific Economic Cooperation (CANCPEC)

CHAIR:

Ambassador Donald CAMPBELL Distinguished Fellow Asia Pacific Foundation of Canada & Senior Strategy Advisor DLA Piper Email: don.campbell@dlapiper.com

SECRETARIAT:

Ms. Serena KO Program Manager Asia Pacific Foundation of Canada Email: serena.ko@asiapacific.ca

ADDRESS:

Canadian National Committee for Pacific Economic Cooperation c/o Asia Pacific Foundation of Canada 900-675 West Hastings Street Vancouver BC Canada , V6B 1N2 Tel: +1 (604) 6301549 Fax: +1 (604) 6811370

COMMITTEE HOMEPAGE:

https://www.asiapacific.ca/

CHILE

Chilean National Committee for Pacific Economic Cooperation (CHILPEC)

CHAIR:

Ms. Loreto LEYTON Executive Director, Chile Pacific Foundation Email: lleyton@funchilepacifico.cl

ADDRESS:

Chilean National Committee for Pacific Economic Cooperation c/o Chile Pacific Foundation Av. Los Leones 382, Of. 701 Providencia, Santiago, Chile Tel: +56 (2) 23343200 Email: cfuenzalida@funpacifico.cl

COMMITTEE HOMEPAGE:

https://www.funpacifico.cl/en/

CHINA

China National Committee for Pacific Economic Cooperation (CNCPEC)

CHAIR:

Amb. SU Ge Former President China Institute of International Studies (CIIS) Email: sugenews@ciis.org.cn

SECRETARIAT:

Mr. AN Zhongli Secretary General, CNCPEC Email: anzhongli@ciis.org.cn

ADDRESS:

China National Committee for Pacific Economic Cooperation c/o China Institute of International Studies 3 Toutiao Taijichang Beijing, China 100005 Tel: +86 (10) 85119648/85119647 Fax: +86 (10) 65235135 Email: cncpec@pecc-china.org

COLOMBIA

Colombia National Committee for Pacific Economic Cooperation (COLPECC)

CHAIR: Mr. Carlos Holmes TRUJILLO Minister of Foreign Affairs

STANDING COMMITTEE MEMBER:

Dr. Fidel DUQUE Director General, COLPECC Email: fiduque42@gmail.com

SECRETARIAT:

Mr. Ignacio Enrique Ruiz PEREA Ambassador, Asia Africa and Oceania Bureau Ministry of Foreign Affairs Email: ignacio.ruiz@cancilleria.gov.co

ADDRESS:

Colombia National Committee for Pacific Economic Cooperation Ministry of Foreign Affairs c/o Asia Africa and Oceania Bureau Palacio de San Carlos Calle 10 No 5-51 Bogota D.C., Colombia Tel: +57 (1) 381 4000 ext. 1160 Fax: +57 (1) 561 1796

ECUADOR

Ecuadorian Committee for the Pacific Economic Cooperation Council (ECUPEC)

CHAIR:

Mr. Mauricio DÁVALOS-GUEVARA President, ECUPEC Email: mdavalos@agroflora.com.ec

SECRETARIAT:

Ambassador Paulina GARCÍA-DONOSO Executive Director, ECUPEC

ADDRESS:

Ecuadorian Committee for the Pacific Economic Cooperation Council c/o Ministry of Foreign Affairs, Trade and Integration 10 de Agosto NS 21-255 y Jeronimo Carrion Edificio Solis, 4to. Piso Quito, Ecuador Tel: +593 (2) 2500 654 Fax: +593 (2) 2500 854 Fax: +593 (2) 2508937 Email: ecupec@mmrree.gob.ec

HONG KONG, CHINA

Hong Kong Committee for Pacific Economic Cooperation (HKCPEC)

CHAIR:

Professor LEE Kwok On, Matthew Vice-President (Development & External Relations) Chair Professor of Information Systems and Electronic Commerce City University of Hong Kong Email: ismatlee@cityu.edu.hk

SECRETARIAT:

Ms. Monica CHEN Secretary General, HKCPEC Email: monicachen@tid.gov.hk

ADDRESS:

Hong Kong Committee for Pacific Economic Cooperation Trade and Industry Department 18/F, Trade and Industry Tower 3 Concorde Road Kowloon City, Hong Kong SAR Tel: +852 23985449 Fax: +852 27877799 Email: hkcpec@tid.gov.hk

COMMITTEE HOMEPAGE:

http://www.hkcpec.org

INDONESIA

Indonesian National Committee for Pacific Economic Cooperation (INCPEC)

CO-CHAIRS:

Dr. Mari PANGESTU Member, Board of Directors Center for Strategic and International Studies (CSIS) Foundation Email: mari@pangestu.net Cc: mwidjaja10@gmail.com

Dr. Yose Rizal DAMURI Head of Department of Economics Center for Strategic and International Studies (CSIS) Email: yose.rizal@gmail.com

SECRETARIAT:

Ms Natalia ROWENA Email: economics@csis.or.id

ADDRESS:

Indonesian National Committee for Pacific Economic Cooperation c/o Centre for Strategic and International Studies (CSIS) JI. Tanah Abang III No. 23-27, 2nd Floor Jakarta 10160 Indonesia Tel: +62 (21) 3865 532-5 Fax: +62 (21) 3847 517 Email: rosita@csis.or.id

COMMITTEE HOMEPAGE:

https://www.csis.or.id

JAPAN

Japan National Committee for Pacific Economic Cooperation (JANCPEC)

CHAIR:

Ambassador Kenichiro SASAE President The Japan Institute of International Affairs (JIIA) Email: peccjp3503@jiia.or.jp

SECRETARIAT:

Mr. Yasunori NAKAYAMA Executive Director, JANCPEC

ADDRESS:

Japan National Committee for Pacific Economic Cooperation c/o The Japan Institute of International Affairs (JIIA) 3rd Floor Toranomon Mitsui Building 3-8-1 Kasumigaseki, Chiyoda-kuTokyo 100-0013 Japan Tel: +81 (3) 35037744 Fax: +81 (3) 35036707 Email: peccjp3503@jiia.or.jp

COMMITTEE HOMEPAGE:

http://www.jiia.or.jp/en/pecc/index.php

KOREA

Korea National Committee for Pacific Economic Cooperation (KOPEC)

CHAIR:

Dr. Jae-Young LEE President Korea Institute for International Economic Policy (KIEP) Email: Ijy@kiep.go.kr

VICE CHAIR:

Dr. Chul CHUNG Senior Vice President Korea Institute for International Economic Policy (KIEP) Email: cchung@kiep.go.kr

SECRETARIAT:

Ms. Soyoung KWAK Senior Researcher, Korea National Center for APEC Studies Korea Institute for International Economic Policy (KIEP) Email: sykwak@kiep.go.kr

ADDRESS:

Korea National Committee for Pacific Economic Cooperation c/o Korea Institute for International Economic Policy (KIEP) 339-007, Building C, Sejong National Research Complex 370, Sicheong-daero, Sejong-si, Korea Tel: +82 (44) 414 1240 Fax: +82 (44) 414 1162 Email: kopec@kiep.go.kr

COMMITTEE HOMEPAGE:

http://www.kiep.go.kr/eng/index.do

MALAYSIA

Malaysia National Committee for Pacific Economic Cooperation (MANCPEC)

CHAIR:

Chairman and Chief Executive ISIS Malaysia Email: rastam@isis.org.my

SECRETARIAT:

cc: Ms. Norazzah Email: azza@isis.org.my

ADDRESS:

Malaysia National Committee for Pacific Economic Cooperation c/o Institute of Strategic and International Studies (ISIS) Malaysia No. 1 Pesiaran Sultan Salahuddin PO Box 12424 50778 Kuala Lumpur, Malaysia Tel: +60 (3) 26939366 Fax: +60 (3) 2691 5435

Committee Homepage:

https://www.isis.org.my

MEXICO

Mexico National Committee for Pacific Economic Cooperation (MXCPEC)

CHAIR:

Dr. Luis Videgaray CASO Secretary of Foreign Affairs

STANDING COMMITTEE MEMBER: TBA

SECRETARIAT: Mr. Vladimir VÁZQUEZ HERNÁNDEZ Email: vvazquezh@sre.gob.mx

Mr. Francisco MOSQUEDA BRITO Email: fmosqueda@sre.gob.mx

Ms. Martha CAMACHO DE LA VEGA Email: mcamacho@sre.gob.mx

ADDRESS:

Mexico National Committee for Pacific Economic Cooperation c/o Ministry of Foreign Affairs Avenida Juárez No. 20, Floor 20 Col. Centro, Deleg. Cuauhtémoc, C.P. 06010 Mexico City, Mexico Tel: +52 (55) 3686-5946/3686-5387 Fax: +52 (55) 3686-5947 Email: dgapacifico@sre.gob.mx

NEW ZEALAND

New Zealand Committee of the Pacific Economic Cooperation Council (NZPECC)

CHAIR: Mr. Brian LYNCH Business Consultant Water Blue Economy Project Email: brianlynch344@gmail.com

SECRETARIAT:

Ms Yvonne LUCAS Executive Director, NZPECC Email: yvonne.lucas@nzpecc.org.nz

Ms. Christine CONNON Email: cconnon@chamber.co.nz

ADDRESS:

New Zealand Committee of the Pacific Economic Cooperation Council c/o Auckland Chamber of Commerce Level 3, 100 Mayoral Drive PO Box 47, Auckland, New Zealand Tel: +64 (9) 302 9932 Fax: +64 (9) 309 0081

PHYSICAL ADDRESS:

Level 9, 90 Symonds Street Auckland 1010, New Zealand

COMMITTEE HOMEPAGE:

http://nzpecc.org.nz

PERU

Peruvian National Committee for Pacific Economic Cooperation (PERUPEC)

CHAIR:

Ambassador Elard ESCALA General Director for Asia and Oceania Ministry of Foreign Affairs Email: eescala@rree.gob.pe

SECRETARIAT:

MS. Krizia Karen Herrera CELL Email: kherrera@rree.gob.pe

ADDRESS:

Peruvian National Committee for Pacific Economic Cooperation 4th Floor, Ministry of Foreign Affairs Jr Lampa 545 Lima 1, Peru Tel: +51 (1) 204 3030 Fax: +51 (1) 204 3032

PHILIPPINES

Philippine Pacific Economic Cooperation Committee (PPECC)

CHAIR:

Ambassador Antonio I. BASILIO President Philippine Foundation for Global Concerns, Inc Email: aibasilio@pfgc.ph

SECRETARIAT:

Ms. Evelyn Q. MANALOTO Executive Director, PPECC Email: emanaloto@pfgc.ph

ADDRESS:

Philippine Pacific Economic Cooperation Committee c/o Philippine Foundation for Global Concerns, Inc. 32/F Zuellig Building Makati Avenue corner Paseo de Roxas Makati City 1226, Philippines Tel: +63 (2) 843 6536 Fax: +63 (2) 845 4832 Email: ppecc@pfgc.ph

SINGAPORE

Singapore National Committee for Pacific Economic Cooperation (SINCPEC)

CHAIR:

Dr. TAN Khee Giap Co-Director, Asia Competitive Institute Associate Professor of Public Policy National University of Singapore Email: spptkg@nus.edu.sq

SECRETARIAT:

Ms. YAP Xin Yi Email: sppyxy@nus.edu.sg

ADDRESS:

Singapore National Committee for Pacific Economic Cooperation c/o Lee Kuan Yew School of Public Policy National University of Singapore 18 Evans Road Singapore 259364 Tel: +65 6516 5025 Fax: +65 6235 0248

COMMITTEE HOMEPAGE:

http://sincpec.sg

PACIFIC ISLANDS FORUM (PIF)

CHAIR:

Ms. Meg TAYLOR Secretary General Pacific Islands Forum Secretariat

ADDRESS:

Private Mail Bag Suva, Fiji Tel: +679 3312600 Fax: +679 322 0230 Email: sg@forumsec.org.fj Cc: info@forumsec.org.fj

CHINESE TAIPEI

Chinese Taipei Pacific Economic Cooperation Committee (CTPECC)

CHAIR:

Dr. Chien-Fu LIN President Taiwan Institute of Economic Research (TIER) Email: clin@tier.org.tw

SECRETARIAT:

Dr. Darson CHIU Director General, CTPECC Email: d11224@tier.org.tw

ADDRESS:

88

Chinese Taipei Pacific Economic Cooperation Committee c/o Taiwan Institute of Economic Research (TIER) 7F. 16-8. Dehuei Street Taipei, Taiwan 10461 Tel: +886 (2) 25865000 Fax: +886 (2) 25956553 / 25946563

COMMITTEE HOMEPAGE:

http://www.ctpecc.org.tw

THAILAND

Thailand National Committee for Pacific Economic Cooperation (TNCPEC)

CHAIR:

Dr. Narongchai AKRASANEE Chairman, Khon Kaen University Council Member, Monetary Policy Committee of Bank of Thailand Email: narongchai261@gmail.com

SECRETARIAT:

Ms. Duangthip CHOMPRANG Director Regional Support and Assistance Institute for International Trade and Development Email: duangthip@itd.or.th

ADDRESS:

Dr. Kamalinne PINITPUVADOL Executive Director Institute for International Trade and Development 8th Floor, Vidhabhathana Building Chulalongkorn University, Chula Soi 12 Phayathai Road, Wang Mai Pathumwan, Bangkok 10330 Thailand Tel: +66 (2) 2161894-7 ext 101 Email: kamalinne@itd.or.th

UNITED STATES

United States Committee for Pacific Economic Cooperation (USPECC)

STANDING COMMITTEE MEMBER:

Dr. Richard CANTOR Chief Credit Officer Moody's Corporation

SECRETARIAT:

Mr. Alex PARLE Executive Director, USPECC Email: aparle@ncapec.org

ADDRESS:

United States Committee for Pacific Economic Cooperation Council (USPECC) c/o National Center for APEC Fourth and Blanchard Building 2101 4th Avenue Suite 760 Seattle, WA 98121 USA Phone: 206-441-9022 Fax: 206-441-1006

VIETNAM

Vietnam National Committee for Pacific **Economic Cooperation (VNCPEC)**

CHAIR:

Dr. VO Tri Thanh Member Viet Nam's National Financial and Monetary Policy Advisory Council Email: votrithanh1995@gmail.com

VICE-CHAIR:

Ambassador NGUYEN Nguyet Nga Special Advisor APEC 2017 National Committee

SECRETARIAT:

Ms. NGUYEN Thanh Hai **Deputy Director** APEC 2017 National Committee Email: haingth@hotmail.com

ADDRESS:

Vietnam National Committee for Pacific **Economic Cooperation** c/o Ministry of Foreign Affairs No. 6 Ba Huyen Thanh Quan str. Ba Dinh, Hanoi, Vietnam Tel: +84 (4) 32373084 Fax: +84 (4) 32373043 Email: apecmofavn@gmail.com

ASSOCIATE MEMBERS

FRANCE (PACIFIC TERRITORIES)

France Pacific Territories National Committee for Pacific Economic Cooperation (FPTPEC)

CHAIR:

Mr. Pascal LAMY President Emeritus, European Institute Jacques Delors, Paris Email: lamy@delorsinstitute.eu

SECRETARIAT:

Prof. Jean Luc LE BIDEAU Vice-Chair, FPTPEC Tel: +33 (6) 85082141 Email: jllebideau@icloud.com

Ambassador Jacques LE BLANC Secretary General, FPTPEC Tel: +33 (1) 53692495 Fax: +33 (1) 53692276 Email: jacques.leblanc@outre-mer.gouv.fr

Ambassador Christian LECHERVY Permanent Secretary for Pacific Affairs Ministry of Foreign Affairs Tel: +33 (1) 53692529 Fax: +33 (1) 53692276 Email: christian.lechervy@diplomatie.gouv.fr

Chair, Polynesia Mr. Eric POMMIER Email: ecpommier@gmail.com

Chair, New Caledonia Mr. Dominique CHU VAN Email: dchuvan@gmail.com

ADDRESS :

Comité France (Territoires du Pacifique) pour le PECC c/o Ministère de l'Outre Mer Secrétariat Permanent pour le Pacifique 27, Rue Oudinot 75007 Paris, France Tel: +33 (1) 53692495 Fax: +33 (1) 53692276

INSTITUTIONAL MEMBERS

PACIFIC TRADE AND DEVELOPMENT CONFERENCE (PAFTAD)

CHAIR:

Dr. Mari PANGESTU Email: mari@pangestu.net Cc: mwidjaja10@gmail.com

SECRETARIAT:

Professor Peter DRYSDALE Emeritus Professor of Economics and Head of the East Asia Bureau of Economic Research and East Asia Forum Crawford School of Public Policy Australian National University Email: peter.drysdale@anu.edu.au

ADDRESS:

Pacific Trade and Development Conference International Secretariat c/o East Asian Bureau of Economic Research Crawford Building Lennox Crossing Building #132 The Australian National University Canberra ACT 0200, Australia Tel: +61 (2) 6125 0552 Fax: +61 (2) 6125 5570 Committee Homepage: http://paftad.org

COMMITTEE HOMEPAGE:

http://paftad.org

PACIFIC BASIN ECONOMIC COUNCIL (PBEC)

CHAIR:

Mr. Andrew WEIR Senior Regional Partner KPMG Email: chairman@pbec.org

SECRETARIAT:

Mr Michael WALSH Email: walsh@pbec.org Phone: +852 6014 9899

ADDRESS:

Pacific Basin Economic Council (PBEC) 22/F Vertical Square 28 Heung Yip Road Wong Chuk Hang Hong Kong Tel: (852) 2815 6550 Fax: (852) 2545 0449 Email: info@pbec.org

COMMITTEE HOMEPAGE:

http://www.pbec.org



29 Heng Mui Keng Terrace, Singapore 119620 www.pecc.org ISBN: 978-981-14-3558-4