

APEC Policy Brief

Drivers of Services Competitiveness and the Contribution of Structural Reform

APEC Economic Committee and Group on Services

February 2024



**Asia-Pacific
Economic Cooperation**



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APEC Project: EC-GOS 02 2022S

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APEC#224-EC-01.1

Acknowledgment

The authors acknowledge the invaluable assistance of the APEC Policy Support Unit and the Trade and Agriculture Directorate of the OECD Secretariat in the collection and presentation of up-to-date statistical information contained in this report. They also acknowledge their valuable interaction with and commentary on drafts from Christopher Langman, and the support for the development of this Brief from the staff of the Australian APEC Study Centre.

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Abbreviations

ABAC	APEC Business Advisory Council
ACCC	Australian Consumer and Competition Commission
ADB	Asian Development Bank
AIDER	APEC Internet and Digital Economy Roadmap
APA	Aoteorea Plan of Action
APEC	Asia-Pacific Economic Cooperation
APSC	Asia Pacific Services Coalition
ASCR	APEC Services Competitiveness Roadmap
ASEAN	Association of Southeast Asian Nations
AI	Artificial Intelligence
DESG	Digital Economy Steering Group
DIPs	Digital Intermediation Platforms
DSTRI	Digital Services Trade Restrictiveness Index
EAASR	Enhanced APEC Agenda for Structural Reform
EC	APEC Economic Committee
FDI	Foreign Direct Investment
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GESI	Global Enabling Sustainability Initiative
GOS	APEC Group on Services
GRP	Good Regulatory Practice
GVC	Global Value Chain
HI	Human Intelligence
IAPs	Individual Action Plans
IMF	International Monetary Fund
Industry 4.0	4th Industrial Revolution; Digitalised Manufacturing and Services
IoT	Internet-of-things
ICT	Information and Communication Technology
IP	Intellectual Property

JSI	Joint Statement Initiative
MAC	Mining, Agriculture and Construction
MFN	Most Favoured Nation
Moratorium	WTO Moratorium on Customs Duties on Electronic Transmissions.
MRA	Mutual Recognition Agreement
MSMEs	Micro, Small and Medium-sized Enterprises
MTR	Mid-Term Review
OECD	Organisation for Economic Cooperation and Development
PECC	Pacific Economic Cooperation Council
PSU	APEC Policy Support Unit
PTTNS	Public Telecommunications Transport Networks
QR	Quick Response
RAASR	Renewed APEC Agenda for Structural Reform
SDGs	Sustainable Development Goals
SDR	WTO JSI on Services Domestic Regulation
SMEs	Small and Medium-Sized Enterprises
SNA	System of National Accounts
STEM	Science, Technology, Engineering and Mathematics
STRI	Services Trade Restrictiveness Index
Telecoms	Telecommunications
TiVA	Trade in Value-Added
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific.
US	United States
WTO	World Trade Organization

Executive Summary

The focus of this Policy Brief is the contribution of structural reform efforts to the development of competitiveness in the services sector. The first part reviews recent developments in services growth and trade, drawing attention to a sustained pervasive underlying structural shift to services in the global and regional economy. This includes analysis of the nature of the services sector and the ongoing evolution of its value-adding activities. The second part identifies the drivers of competitiveness against the background of which we derive a schematic whole-of-government framework for services policy making. The third and final part highlights the value of cooperation among economies in the implementation of this competitiveness framework, and the particular role that APEC can play.

Service Sector Growth and Trade

Overall, this part highlights the increasing importance of services in the APEC region and the world economy, emphasising the role of digital transformation, productivity, and regulatory and policy settings in shaping the services sector's evolution. It emphasises the growing importance of services, especially digital services, in global trade and their potential to drive productivity, sustainability, and inclusion. It also highlights the need for regulatory and structural reforms to enhance competitiveness in the services sector.

The APEC region has a significant services-based economy, with services contributing to over two-thirds of the collective GDP. Most APEC economies rely heavily on services, with services making up more than half of GDP and employment. This structural feature is also observed globally, across both developed and developing economies.

As income levels rise, the share of services in GDP increases. The transition to services is happening at lower income levels, and the rate of this transition is accelerating. This shift has implications for economic development, with policy attention increasingly drawn to questions around how to manage the process.

Measuring services productivity is complex due to the prevalence of small and medium-sized enterprises (SMEs) in the sector. However, digital transformation is changing the landscape, with digital services input into "smart manufacturing" and "smart agriculture" becoming increasingly important to productivity gains across the whole economy.

Services may appear labour-intensive, but services innovation continues to offer opportunities for employment growth, transitioning out of less-productive agriculture, and escaping the middle-income manufacturing trap.

Services intermediate inputs play a crucial role in delivering manufacturing value-added. Recent data suggests that services can contribute to productivity growth at rates like those in manufacturing.

Digitalisation is transforming services, with examples such as artificial intelligence (AI) enhancing tourism experiences. Access to digital infrastructure and technology is essential for success in the services sector.

The diversity of delivery modes in the services sector contributes to resilience. Services firms tend to be smaller, providing opportunities for SMEs and increased female participation in employment.

Services contribute to sustainability through environmental skills and application of digital technologies. Trade, investment, and data flows play a role in sustainability efforts.

Market failures in the services sector may result from information imbalances and the "lumpiness" of service production. Regulation, such as licensing and quality standards, can address these issues. Competition policy is also crucial.

Policymakers should consider both matters of regulatory omission and commission in the services sector. Appropriate regulation can support sector growth and address specific policy issues.

As new innovative services markets emerge, they can quickly connect across borders, generating benefits associated with participation in international trade, such as innovation, competition, scale, and variety.

This part discusses the significance of services in global trade, especially in the context of digital transformation and sustainability. Key points include:

- Services account for about a quarter of world trade (measured in terms of cross-border flows), with potential for improvement in trade performance by focusing on services competitiveness.
- Services trade has been growing faster than goods trade over the past decade, with developing economies playing an increasing role, including in digital services.
- Services are delivered internationally through various modes, including cross-border transactions, commercial establishment via foreign direct investment (FDI), and temporary cross-border movement of services providers and services customers.
- Digital technology is transforming services tradability by reducing the need for physical proximity, enhancing productivity, and making services more storable.
- Digital services trade has been growing rapidly, with Asian economies being competitive in this sector.
- The COVID-19 pandemic accelerated the growth of digital services trade, contributing to regional resilience.
- Services are increasingly recognised for their potential in development, and international agencies are focusing on services' role in trade, particularly digital services.
- Services are closely linked to digital technology, supporting infrastructure for digital transactions and e-commerce.
- Services are essential in global value chains, both in terms of transport and as intermediates in products, contributing to competitiveness.
- Reforms and trade in services can enhance competitiveness across various sectors, including manufacturing and agriculture
- Digital technologies and associated services play a crucial role in achieving sustainability goals across the Sustainable Development Goals (SDGs) by monitoring and enhancing energy efficiency, circular economy, traffic management, and more.
- Trade in digital services, including environmental services, can facilitate the transition to a low-carbon economy and support environmental sustainability.

Drivers of Competitiveness

This part identifies the drivers of competitiveness in the context of the services sector, focusing on markets and other structural factors that influence the growth and competitiveness of services. It refers to the quality of institutions, infrastructure, openness, and regulatory harmonisation, with a specific focus on digital trade and data flow restrictions. These factors collectively shape the competitive landscape for services markets across economies.

The first is the quality of institutions and rule of law: The level of confidence in creating and implementing business contracts, including their enforcement, is crucial for competitiveness. Research has shown that institutional quality has a direct impact on the performance of the services sector. An example related to financial services contracts is provided to illustrate the significance of institutional and legal arrangements.

The second concerns infrastructure and the domestic location of economic activity. The circumstances of a location in facilitating market operations, including the discovery of buyers and sellers and access to infrastructure, innovation, and skilled human resources are important. Urban areas and the quality of infrastructure, such as telecommunications, broadband internet, transport, and other amenities, play a significant role in supporting competitiveness, particularly in the digital age. Public infrastructure is important, especially in ensuring widespread access to digital communication platforms,

Economic openness and efficient regulation are other critical factors influencing competitiveness. Barriers to international business in services include foreign entry restrictions, constraints on the movement of people, lack of regulatory transparency, and discriminatory measures. These barriers can be evaluated using an index, with lower scores indicating greater openness. Digital regulatory restrictions including on data flows have been increasing globally with an impact on digital services trade.

The part highlights the importance of regulatory harmonisation and convergence across economies, as divergent regulatory approaches can become barriers to trade, especially for smaller enterprises. It emphasises the need for participation in international discussions to shape the governance of digital trade and promote common frameworks and international standards.

Also mentioned is the development of technical standards for services through industry collaboration and multistakeholder structures, emphasising the importance of avoiding fragmentation of markets and facilitating international institutions to reach consensus.

A further contribution is the elaboration of principles for services regulation reform: these principles were presented by Bernard Hoekman and include:

- Emphasising the importance of managing reform processes effectively, especially in services where regulation is prevalent and uncertainty about its effects is high. It suggests engaging with market participants to gather information and capture the spillover effects of regulations.
- Acknowledging the need for flexibility and agility in regulatory reform, as there is not necessarily a one-size-fits-all approach. Where appropriate, reforms can be tailored to specific sectors and economic conditions, considering rapid technological changes.

- Advocating for a broader perspective that goes beyond sector-specific regulations, recognising complementarities and interdependencies across different sectors.
- Highlighting the significance of considering the international consequences of regulations and regulatory reform approaches on services trade and investment. This includes assessing the impact on firms' ability to access critical services intermediate inputs, export services and attract and engage in foreign direct investment.
- Encouraging international regulatory cooperation to recognise equivalent regulatory approaches in different jurisdictions, reduce costs for international trade, and identify more efficient regulatory practices.
- Emphasising the importance of engaging with the private sector and stakeholders across the supply chain to understand the holistic effects of regulations, identify gaps, and update regulations as needed.
- Allowing for interaction with SMEs, particularly innovative ones, as they face different constraints in delivering their services compared to larger firms. This may involve creating a consultative mechanism to engage stakeholders involved in specific types of services.

The next part covers the key elements of an innovation ecosystem in the services sector and their importance for competitiveness. These elements include:

- **Point of Interaction Innovation:** Innovation in services often occurs at the point where services providers interact with clients, addressing specific needs and challenges.
- **Flexibility and Adaptability:** Services innovation often requires responding to rapidly changing client demands and evolving challenges.
- **People-driven innovation:** Both operational and technical staff, as well as researchers, play a crucial role in services innovation. It involves a collaborative effort from various professionals.
- **Everyday Creativity:** Services innovation is intertwined with everyday creativity and problem-solving, reflecting the dynamic nature of the sector.
- **Focus on Delivery Methods and Business Models:** Services innovation extends beyond new service offerings to include innovative delivery methods and business models.
- **Technological and Non-Technological Inputs:** Innovation in services requires technological inputs, but it also relies on non-technological factors, including social sciences, creative arts, and humanities.
- **Soft Skills and Collaboration:** Soft skills such as critical thinking, problem-solving, and adaptability are crucial in services innovation. Collaboration among employees and organisations is essential.

Digital transformation plays a role in shaping innovation ecosystems, with data flows becoming increasingly significant.

Policy areas that can impact innovation ecosystems include regulatory predictability, dialogue among stakeholders, openness to international engagement, and support for early global market reach for start-ups. The role of leadership in innovation systems is discussed, with universities identified as potential coordinators.

The part also outlines the importance of enhanced human capital, particularly skilled labour, in driving competitiveness in services. It highlights the correlation between the number of tertiary-level graduates and services trade performance. The challenge lies in producing an adequate number of high-quality graduates across the STEM fields and the humanities. Additionally, technological change, particularly in AI, is transforming skills demand, emphasising the need for critical thinking and adaptability in education. Regulatory challenges may arise as AI enters traditional professional services areas, with possible implications for local qualifications requirements and recognition systems.

APEC Cooperation

This part discusses the challenges of policy reform, emphasising the complexities and difficulties associated with implementing structural reforms in the services sector. It points out the need for continuous and long-term efforts due to disruptive technological changes and the uncertainty surrounding policy impacts. The challenges arise from various factors, including the involvement of multiple government agencies, policy interactions, potential unintended consequences, and management of private interests.

To address these challenges and facilitate reform, several key principles and approaches are discussed:

- **Benchmarking against Peers:** Governments should compare their policy settings and regulatory practices with those of relevant peer economies to identify gaps and areas for improvement.
- **Independent Analysis of Options:** Independent analysis of reform options is more effective in public debate than relying solely on government or vested interests for such analysis.
- **Prioritise Competition over Ownership:** To ensure better outcomes for consumers, reforms should prioritise introducing competition into markets rather than prioritising changes in ownership or privatisation.
- **Take a Forward-Looking View:** A forward-looking approach should identify the desired end point of reform to avoid becoming stuck at any undesirable mid-term outcomes and to manage the emergence of new vested interests.
- **Leadership Commitment:** Leaders should commit to reform and effectively communicate the benefits of structural reforms to garner support.

Other talking points include how to meet universal service obligations directly, without relying on cross-subsidies, and using experiments or "sandboxes" to test new regulatory approaches when uncertainty exists.

A framework for attention to inclusive growth is valuable, and reforms should focus not only on improving total factor productivity but also on wide access to infrastructural services. A focus on inclusive growth also underscores the need to identify and measure both the direct and indirect effects of reforms, as well as to address adjustment costs and capture spill-over benefits.

Finally, the part discusses the role of regional cooperation, suggesting that APEC members can support individual economy-level actions by using APEC tools and mechanisms. It calls for a series of collaborative activities among APEC members to promote success in implementing structural reforms for services sector competitiveness, emphasising the importance of ongoing interactions over multiple annual cycles.

Introduction

The services sector is now a large part of all APEC economies. Its performance therefore has significant implications across the economy, for growth in income and employment and for key development goals such as resilience, sustainability, and inclusion. Drawing on the emerging global and regional evidence base, this policy brief shows how a competitive services sector can contribute to stronger outcomes with respect to all those goals.

There are various indicators of competitiveness, and commentary is provided in Part One, but in brief, a competitive sector is one that contributes simultaneously to both employment growth and productivity-generated, real wage growth. To help provide some context to this discussion we include an outline of the scope of the services sector and the nature and evolution of its value-adding activities.

Part two provides an updated analysis of the drivers of services competitiveness from which we derive a schematic whole-of-government framework for services policy making. We refer to the contributions of openness to trade and investment in services, openness to cross-border data flows and the adoption of international services standards, all of which are vital ingredients in access to global value chains and international technology. We also stress the complementary roles played by the depth of human capital, provision of digital infrastructure, application of good regulatory practices and a thriving innovation system.

Cutting across all these arenas is the value of attention to digital technology, which daily draws more attention in public discussion of services sector development. We argue that more open services sectors are necessary for competitiveness, but success is not just about liberalisation. We note that many of the drivers of competitiveness are themselves influenced or determined by the extent of openness to trade and investment and that there is scope for a virtuous circle reinforcing competitiveness through the application of a holistic policy framework approach.

The implication of this treatment of the drivers of services sector competitiveness is that policy adjustments will likely be required for success. This situation is already well recognised in the APEC process where members are committed to the APEC Services Competitiveness Roadmap (ASCR) and to policy change to support measurable progress towards the indicators of success in the ASCR. We note those indicators, and the quantitative targets they support were determined some time ago. We therefore review the findings of the 2021 mid-term review (MTR) of ASCR and comment on how those indicators might be augmented and reconsidered to improve the mixed performance of the ASCR to date.

Part two also reiterates the argument that key elements of progress in services reform are tightly aligned to APEC's more general structural reform agenda, currently in the form of the Enhanced APEC Agenda for Structural Reform (EAASR). In this context, we stress the connections between APEC's work on services competitiveness and the work on structural reform.

Changes that are involved in successful structural reform designed to contribute to services competitiveness are often complex, involving interactions with many agencies, undertaken against a backdrop of technological change with uncertain effects and subject to the influence of interests associated with any potential winners and losers. For all these reasons the critical reforms may not be easy. Given its constantly shifting context, structural reform needs to be a continuous process. We clarify this argument in the following section of this Brief, referring to some contributors to reform success, drawing on earlier work. This sets the scene for a discussion of the value of cooperation among APEC members to support economies' reform programs.

APEC has many tools available to help drive the success of these reform programs, not least the existing commitments to the ASCR and EAASR. Indeed, APEC Ministers in 2022 have¹ asked for these agendas to be more closely coordinated and for the relevant committees in APEC to work more closely together, including the Digital Economy Steering Group (DESG):

"Mindful of the vast potential that the services sector holds, we underscore the importance of continued efforts to implement the APEC Services Competitiveness Roadmap (ASCR) by 2025, reiterating the recommendations in the Summary Report of the ASCR Mid-Term Review (MTR) in 2021.

We reiterate our commitment to making services domestic regulation and policy reform in favour of openness, balance, transparency, and inclusivity as a central focus of APEC's structural reform agenda and enhancing synergy among the APEC Internet and Digital Economy Roadmap (AIDER), the La Serena Roadmap for Women and Inclusive Growth (2019-2030), and the Enhanced APEC Agenda for Structural Reform (EAASR).

We task the Group on Services to coordinate with the Economic Committee and the Digital Economy Steering Group to examine the role of services competitiveness within these fora's respective agendas up to 2025 and welcome the initiatives underway in this regard."

Ministers referred not only to the work on the ASCR and structural reform, but also the digital agenda and inclusive growth. They set the expectation for a multi-year program of work on the linkages between these topics.

¹ Statement, 2022 APEC Ministerial Meeting, Bangkok, Thailand, 18 November, para. 14 ([2022 APEC Ministerial Meeting | APEC](#))

Part three of this report comments on various activities of APEC fora, and how coordination links can be strengthened to better contribute joint outcomes to support services competitiveness. This includes paying continued attention to the reporting in Individual Action Plans (IAPs) under the EAASR. It draws on findings from the 2023 MTR of EAASR and concludes with a discussion of specific topics, activities and policies to which attention might be given in future work to support economies' efforts to build a more competitive services sector.

The material presented draws on two previous APEC reports on services and structural reform. In 2017, the PSU released a report on services and structural reform.² It identified key sectors for attention including transport, telecommunications, health and education, on the grounds of inclusion and of their cross-cutting impacts. Higher performance in those sectors contributes to the competitiveness of others. The report also called for a value chain perspective on the design of reform, noting the linkages involved between services providers including in different jurisdictions that contribute to the final delivery of value-adding activity.

The 2017 PSU Report noted the fundamental relevance to services of regulatory arrangements, and the way in which regulation and its divergences among economies can impede productivity growth, trade and investment flows, and competitiveness. It also noted the challenge facing individual regulators in terms of their capacity to consider the wider effects of their decisions – along the value chain and in terms of implications for international business. For this reason, the Report argued for more effort in APEC and individual member economies with respect to Good Regulatory Practice (GRP) and international regulatory cooperation. The Report also discussed the value of additional efforts to collect and analyse services data, to inform policymakers and regulators about their choices and to monitor the progress of and impact of reform.

The 2022 Policy Brief³ reminded readers of the scale of the services sector and how it can contribute to the region's responses to current challenges. It discussed impediments to growth in services competitiveness in all economies and the links to the structural reform agenda and then identified APEC tools available to respond to lagging services competitiveness and the scope to benefit from collaborative cross-fora work. The 2022 Policy Brief sought to draw lessons from the pandemic experience and to take stock of new challenges facing regulators in the services sectors in the context of digitalisation, including those related to competition policy. It concluded with a discussion of options for the effective organisation of a joint forward work

² APEC (2017). *Structural Reform and Services*, APEC Policy Support Unit, June, <https://www.apec.org/Publications/2017/06/Structural-Reform-and-Services>

³ Jane Drake-Brockman and Christopher Findlay with Bernard Hoekman, Hildegunn Kyvik Nordås, and Lee Tuthill, *APEC Policy Brief on Services Competitiveness and Structural Reform*, APEC Economic Committee and Group on Services, December, 2022, available at [222 ec-gos apec-policy-brief-on-eaasr-and-ascr.pdf](https://www.apec.org/~/media/2022/12/2022-ec-gos-apec-policy-brief-on-eaasr-and-ascr.pdf).

program across elements of the APEC architecture (the Economic Committee (EC) and Group on Services (GOS) in particular) to deliver a sustained individual and concerted focus on structural reform to boost services competitiveness, utilising APEC instruments, including the EAASR IAPs, the ASCR and capacity building programs in APEC.

Services sector growth and trade

1.1 Size and scope of the services sector

APEC is a services economy, with the average APEC services' share of GDP comprising over two-thirds of the collective APEC GDP.⁴ For all but four APEC economies,⁵ services make up more than half of GDP and well over half of total employment. Services account for a rising share of GDP worldwide, a growth trend that is more pronounced, from a lower base, in developing economies. A recent WTO and World Bank report observed that services and services trade are now "at the heart of economic transformation."⁶

Figure 1 shows the trends in sector share of employment by economy income category, as well as the world average. The services share rises in 2021 from 31 per cent in low-income economies, to 40 per cent in lower-middle-income economies, over half in middle-income economies and 75 per cent in high-income economies. The increments to the share become larger as income rises, that is, the growth of services accelerates towards a long-run level. The world average is 50 per cent, lower than the situation in APEC. It is also interesting that once an economy reaches the lower middle-income status, the share of 'industry' (or manufacturing) in employment is remarkably stable, in the mid-20s: in that case, the main change is the shift out of agriculture into services.

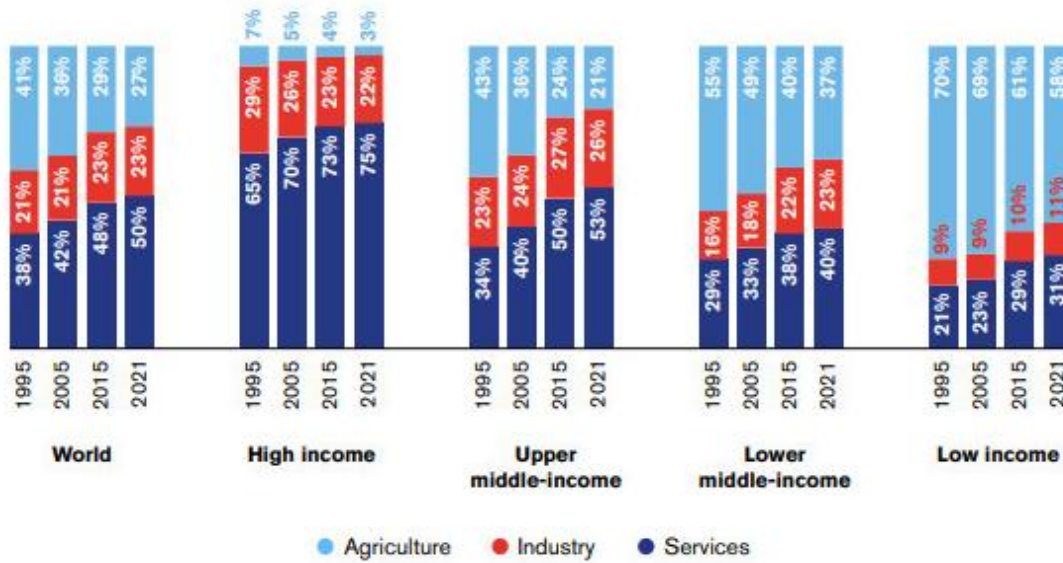
Not only does the size of the sector grow with income levels, but also recent research has identified that the timing of the transition to services has changed. There are two dimensions to this change. First, the transition to services is happening at lower levels of income. Second, the rate at which the transition occurs is increasing.

⁴ABAC. (2021). "ABAC Input to the Mid-Term Review of the APEC Services Competitiveness Roadmap", May 2021, Manila

⁵ Brunei Darussalam; Indonesia; Papua New Guinea; and Viet Nam.

⁶ World Bank and the WTO, Trade in services for development: Fostering sustainable growth and economic diversification, World Bank and the WTO, 2023, p 13.

Figure 1: Shares of employment by sector and economy income level



Source: Figure 3, World Bank and the WTO, Trade in services for development: Fostering sustainable growth and economic diversification, World Bank and the WTO, 2023.

While the global and regional story on output and employment is abundantly clear, the story on services productivity is more complex⁷. This is partly because, in a sector dominated by SMEs and MSMEs⁸, the smaller scale of many services activities results in persistent productivity measurement problems. The lack of clarity around measurable productivity gains also seems partly due to the initial slow uptake, in manufacturing and agriculture, of high value-added digitally-enabled services inputs. This has dramatically changed as the digital transformation has taken root and “smart manufacturing” and “smart agriculture” are now here to stay. In the public imagination, “data” has replaced “capital” as the new global economic lifeblood. The reality is that the two come together in “digital investment”, especially in digital infrastructure⁹ embodying technology flows and access to global services value chains.

Productivity in the merchandise sector is now increasingly recognised as sourced in high-value-added intermediate services inputs to production and through the application of new labour-saving technologies. Attention then shifts to the services sector. The opportunities for employment growth, the transition out of agriculture and escape from the middle-income manufacturing trap, have been clear. However, there have been concerns about the contributions to productivity growth, and therefore incomes, from this transition. The services

⁷ Nayyar, Gaurav, Mary Hallward-Driemeier, and Elwyn Davies. 2021. At Your Service? The Promise of Services-Led Development. Washington, DC: World Bank

⁸ The services sector is *the* SME sector. As services take hold, SMEs and MSMEs are estimated to account for 90% of most APEC economies, whether developing or developed. See for example (*reference to be added*).

⁹ (*reference to be added*).

output share tends to be lower than the employment share, especially in developing economies, so services appear to be relatively labour-intensive at least in traditional customer-facing sectors. The concern has been that it might be more difficult for capital to play the role of a platform for new technology. Services involve an interaction between producers and consumers, and their outputs have traditionally not been storable, which, it was thought, made trade and scale more difficult to achieve. The assumption was made that services provide fewer cross-sectoral advantages.

These propositions about services were long ago challenged in APEC in 2008 reports from the Pacific Economic Cooperation Council (PECC) and the APEC Business Advisory Council (ABAC) pointing out the role of services intermediates in delivering manufacturing value-added and the rapid global process of servicification right across the economy. The data now available, mainly from firm-level studies, tends to confirm that there is as much scope for productivity growth in services as in manufacturing and at similar rates of growth; and that services firms (at least in some economies) are as productive at small scale as at large. But there remains much scope for policy dialogue and information exchange, both at the domestic and regional level, between the economic and services trade policy communities on these particular issues, which lie at the heart of the current policy and regulatory thrust on services, including digitally-enabled services. To understand the evolution of the regional narrative on services, it is valuable to appreciate the origins of, and issues involved in, the growth of the services sector (Box 1).

Box 1: Origin and Evolution of Services Markets

In most economies, many services industries were once completely or partly outside the realm of the commercial marketplace, both domestically and internationally. Some were (and some still are) considered “public utilities” and were originally government-owned, provided and maintained. These services sectors are still often referred to as “infrastructural” such as energy and environmental services (such as water and waste), transport, banking, telecommunications, health, education and construction of public facilities. In some economies, some of these sectors remain at least partly in the realm of government. As governments allowed these sectors to enter the realm of the market, either by privatisation or contractual arrangement, and to compete with other private providers, including internationally, governments typically retained a strong regulatory oversight of the sectors to ensure continuation of “universal service” to the domestic population along with consumer protection and competition policy.

This early trend saw rapidly increasing development of services markets and widespread associated productivity gains. Over ongoing periods of structural reform, the application of regulatory best practices helped maximise the productivity potential of these sectors.

In more recent decades, the manufacturing sector has similarly witnessed a transformational process (known as “servicification”) of reaping productivity gains across the production chain by contracting out of services tasks once undertaken in-house - but now increasingly outsourced to independent specialist and more competitive services providers. Many professional services (such as legal services, engineering, architectural and accountancy services) are in this category as are a multitude of core and other business services (from downstream activities such as packaging, branding, marketing and advertising, to upstream activities such as R&D and exploration, human resource management, procurement and cleaning services).

The associated creation of new markets for specialist services activities has driven productivity gains right across both the goods sectors of the economy and across ongoing government services. The dynamic process of “unbundling” activities that were once bundled together also extends now across production chains in the services sector itself, today’s services market creation process increasingly enabled by the adoption of digital technologies. The boundaries between goods and services sectors may be blurring (again) as this process intensifies - but it’s now the services sector which is evidently dominant.

Turning this narrative into a formal definition of services is not straightforward. The modern definition, contained in the 2008 System of National Accounts and the 2010 Manual on Statistics of International Trade in Services, identifies services activities as characterised either by facilitating the exchange of products or assets (“margin services” such as financial services or real estate services) and others as characterised by changing the conditions of the consuming units (“change-effecting services” such as packaging, marketing, nursing, education, transport, tourism, entertainment).

Change-effecting services are produced to order, on demand of the consumer, and typically consist of changes in the physical conditions of goods or the physical or mental conditions of persons. They are also referred to as “transformation services”. They cannot be traded separately from their production, so ownership rights are difficult to establish. Their production is effectively simultaneous with their consumption.

Change-effecting services can also deliver changes to the condition of the consumer’s intangible assets. Such services can generate “knowledge-capturing products” which are, on the contrary, owned by the service provider. These include the creation, storage, communication and dissemination of information, advice and entertainment in a way that the consuming unit can access the knowledge repeatedly. The services industries that produce these products include news and other information services, consultancies, computer programs, movies and music.

Going a step further and looking at classifications of digital services, we note that “other information services” covers, for example, cloud computing and data transmissions.

The perspective on services presented in Box 1 has several implications with respect to productivity objectives:

1. The ongoing reorganisation of business models in the goods sectors to make better use of contracting out to specialised and more competitive services firms (increasing the size of local and international services markets) will continue to add to overall economic productivity including in the goods sectors (since doing so is an efficiency gain over goods firms' in-house services activity).
2. Contracting of services intermediate inputs in both the goods and services sectors is associated with various dynamic effects, including innovation and competition in increasingly dense markets.
3. There is a lot more scope for technological change to have a significant impact on the organisation of services, and to add to productivity not only in services but also in the goods sectors. The 2022 Policy Brief provided a number of examples of the application of digitalisation to services, including artificial intelligence. Another is contained in Box 2.
4. The capacity to capture scale economies is increasingly evident in the services sector. This includes the digital intermediation platforms (DIPs) which facilitate interactions between producers and consumers, reducing the cost of finding each other. Scale is also achieved in R&D or other upstream and back-office functions, the innovative benefits of which are distributed across the network of consumer-facing businesses.
5. There are global value chains in services, with many examples of intermediate inputs that make up final services being distributed across APEC economies.¹⁰
6. Significant interactions occur between services sectors. Services themselves are intensive users of other services; the contracting process enables the capture of the benefits of specialist and competitive suppliers.

The services sector is already a dominant part of many APEC economies and the intensifying digital enablement apparent recently illustrates the scope the sector retains to add to productivity growth and overall competitiveness. The sector's capacity to make these contributions will likely vary between components of the sector, which is very diverse, and the timing may vary. Understanding these sub-sectoral shifts, and the role of digital transformation in those shifts, is

¹⁰ A topic for further work is the impact of new digital technology on the shape of global value chains in services. There are forces for their extension (e.g. the ability to digitise and transfer information) and others for their consolidation (e.g. the application of digital processing capacity at the points where information is originally generated). For further discussion, see Baldwin, R. and Forslid, R., 2023. Globotics and development: When manufacturing is jobless and services are tradeable. *World Trade Review*, 22(3-4), pp.302-311.

one reason why APEC collaboration and regulatory cooperation on structural reform priorities has become so important. Overall, success across the bulk of the services sector depends on policy action to enhance competitiveness. This productivity-oriented framework for thinking about services provides insights into the sector’s contributions to other socio-economic goals.

Box 2: Digitalisation along the tourism value chain

Technology can be a catalyst for creating more valuable tourism experiences, adding to demand (number of visitors, length of visits and spending per day). Examples can be identified by understanding how tourists make travel decisions through different travel stages: from dreaming, planning, booking, and experiencing, to sharing. With reference to the application of this way of thinking to Indonesia, Ainnoun Kornita has produced a value chain mapping, copied below, of sources of the relevant technology across the Travel Journey Map. The Map illustrates the scope for cross-border transactions in the delivery of this model, evident in the range of brand names shown. The author identifies several impediments to success including access to relevant infrastructure, digital literacy, access to e-payment systems, lack of trust (related to storage and processing of data) and regulation: she calls for ‘simplifying, updating and revising policies and regulations related to digitalisation in the tourism sector’ and for ‘adopting data integration and interoperability in the tourism sector’.

TRAVEL JOURNEY MAP										
OBJECTIVE Harnessing advanced technology to enhance tourism experience to be more seamless, frictionless, and better quality										
	DREAMING	PLANNING	BOOKING	EXPERIENCING				SHARING		
	VIRTUAL EXPERIENCES				PHYSICAL EXPERIENCES					
ACTIVITIES	Search for information and compare different destinations	Look for recommendations and plan their route	Use tools that allow them to make reservations and purchase hotel, flight and destinations	Secure and easy payment	Retrieve real-time information	Navigations	Social interaction	Secure and Easy Payment	Share their experiences	Write down reviews and comments
TOUCH POINTS	 Social Media Google Search	 Social Media Google Search Travel Marketplace	 Hotel and Flight Booking 	 Digital Payment	 Social Media Google Search Travel Marketplace	 Navigations Social Interaction	 Digital Payment	 Social Media Travel Marketplace	 Social Media Travel Marketplace	
TECHNOLOGY	<ul style="list-style-type: none"> • Big Data • Cloud Computing 		<ul style="list-style-type: none"> • Mobility • Virtual Reality/Augmented Reality 		<ul style="list-style-type: none"> • Blockchain • Social Media 		<ul style="list-style-type: none"> • Artificial Intelligence • Gamification 		<ul style="list-style-type: none"> • Internet of things • Financial Technology 	
STRATEGY	<ul style="list-style-type: none"> • Personalization • Recommender System • Predictive analytics • Information access • Virtual tour/360 video • Text drive • Chatbot and Voice Assistant • Automation • Fast Search • Interactive Game 		<ul style="list-style-type: none"> • Measuring legroom in the booking process • Flight checkin desk process • Streamlining check in process • Reservations and Ticketing • Digital Payment • Identity Management • Chatbot and Voice Assistant • Automation • Recommender System • Predictive Analytics • Booking facilitation • Information Search • Booking through image 		<ul style="list-style-type: none"> • Mobility and Remote Access • Ubiquitous technology • Navigation, direction and self-guided tour • Measuring luggage size for cabin baggage • Digital Payment • Identity Management • Chatbot and Voice Assistant • Automation • Recommender System 		<ul style="list-style-type: none"> • Personalization • Predictive Analytics • Real-time information access and sharing • Handling baggage • Geo Tracking • Beacons 		<ul style="list-style-type: none"> • Loyalty Program • Interactive game • Memorize experience • Receive rewards/coin • more reliable and trustworthy and prevent fake and duplicate reviews • IoT: Health condition will be monitored remotely and continuously via tele-consultation and data collection 	
GOAL	Awareness and Satisfaction		Acquisition		Satisfaction		Loyalty			

Source: This Box is based on Ainnoun Kornita, Technology can bring more tourists back to Indonesia – but first we need a map to guide us, *The Conversation*, February 9, 2023.

There is a contribution to resilience. The former comes from the variety of modes of delivery in the sector. In most situations, these modes are complements to each other – services providers may transfer data to customers without direct contact, but also, they may establish facilities at the customer location, and experts may move between the home base and the customer location – and vice versa - these optional business models apply within and between economies (we discuss trade in services in more detail below).

The links to inclusion are also evident. Overall, services firms are smaller than manufacturers: the processes of production in many sectors tend to be less intensive in the use of financial “capital” or the “capital” to which smaller producers seek access is made available as an intermediate input by other services firms (engine hours or software-as-a-service for instance), so firms can be competitive at a variety of scales. This creates more opportunities for micro, small and medium-sized firms (MSMEs). There is also growing evidence of higher levels of female participation in employment in many parts of the services sector.¹¹

The contribution of services to sustainability is partly through the application of environmental services skills and the adoption of digital technologies and partly through the channels of trade, investment and data flows, which we discuss below.

This evolutionary story with respect to services focuses on the role of the reorganisation of production models across the economy, supported by outsourcing and contracting. There are several drivers of success in this transition, which are the topic of a later section of this Brief.

Another set of implications of this perspective on services relates to the scope for risk of market failures. One dimension is the lack of information held by consumers compared to producers. This imbalance is even more important when consumption and production are joint. Services are not stored, so what is made available is the capacity to provide a service, not the outputs themselves. Consumers may not appreciate the quality of the production process, until it is too late, in other words until it is complete. There is a strong economic case to consider regulation in that case, for example, some sort of licensing arrangement for services providers or mandatory standards for services outputs. Another market failure issue can be associated with the ‘lumpiness’ of the bedrock services production process, that is, the storing of capacity rather than output. Often the costs associated with constructing that capacity are not only fixed but also sunk. In that case, they act as an inhibitor to new providers who might otherwise consider

¹¹ World Bank and the WTO, *Trade in services for development: Fostering sustainable growth and economic diversification*, World Bank and the WTO, 2023.

taking up competition with some incumbent services providers. Hence the significance of competition policy issues in this sector.¹²

Policy issues in services can involve both problems of omission and commission. In the former case, lack of regulation may impede the development of the sector. In the latter cases, the issue may be that the regulation in place is not or is no longer the best response to the policy issue.

As new innovative services markets are created, they can rapidly be connected across borders and that trade generates the sorts of benefits generally associated with participation in trade (additional sources of innovation and competition, advantages of scale, and access to greater variety). The nature of trade in services is the topic of the following section.

1.2 Trade in Services

In gross terms, services account for 22 per cent of world trade – “gross” means the services transactions that are captured in balance of payments data.¹³ This share was traditionally at 25 per cent pre-COVID and is gradually recovering. However, the traditional shares in trade are less than the shares in output discussed above, suggesting much room for improved trade performance via a focus on services competitiveness.

Indeed, over the 2010 decade, services trade grew faster than goods trade and remains on a long-term stronger growth trajectory. The share of developing economies in services trade has also grown rapidly, including in non-traditional areas, such as services that can be supplied across borders through digital means. The share of “other commercial services” in developing economy exports has been rising, as has their share in imports.

Services are delivered internationally in several formats and not all are captured in the Balance-of-Payments data. Sometimes trade involves a person providing services moving across borders. Or trade occurs when consumers move to meet a producer, as in the case of tourism or education. Services are also delivered via commercial presence, that is, by foreign direct investment. Services are also increasingly delivered using digital technology in cross-border transactions.

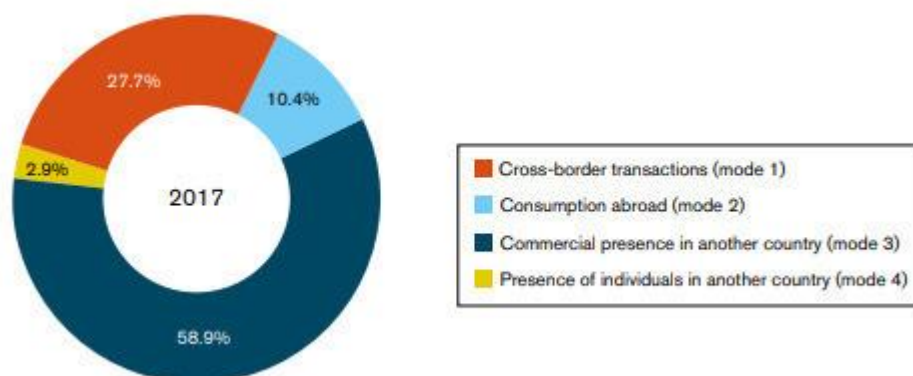
An effort has been made to estimate the relative importance of these different modes of supply. This data is available only up to 2017 as summarised in Figure 2. Commercial presence has long been the dominant mode. Services also dominate global FDI flows – they now account for

¹² The 2022 Policy Brief included a discussion of competition policy, of aspects of the current debate about its application in the telecommunications sector and the scope for the development of APEC Principles for best practice policy design.

¹³ WTO, World Trade Statistical Review 2023, WTO Geneva, 2023 [WTO | World Trade Statistical Review 2023](#)

two-thirds of greenfield projects¹⁴. The time series data now shows a rising share of mode 1 or cross-border transactions online and certainly in the Balance-of-Payments, digital services are now the dominant component.

Figure 2: World Trade in Services by Mode of Supply, 2017



Source: Wettstein, S., Liberatore, A., Magdeleine, J. and Maurer, A., 2019. A global trade in services data set by sector and by mode of supply (TISMOS), WTO, Geneva and WTO World Trade Review 2019, Figure B.1

The 2022 Policy Brief offered explanations of the significant role of FDI in the international delivery of services. Many services are so-called experience or credence products and consumers learn the quality of a service only after consuming it, if at all. For instance, the quality of medical diagnosis and treatment, infrastructure engineering, and maintenance services can often not be assessed by the customer even after having consumed the service. Reputation is therefore important for services firms. So, services providers often prefer to establish close to consumers to build the trust and reputation needed to attract and retain customers.

The 2022 Policy Brief also observed that having established a commercial presence and a reputation in a market, multi-product services firms may produce some services locally and offer others through cross-border trade.¹⁵ In such cases cross-border trade and trade through commercial presence may be complementary: barriers to one mode, such as establishing a commercial presence, also slow down cross-border trade. There are other instances where both the movement of customers and the movement of skilled staff might be involved. Consider for instance an education services provider with a home campus and another offshore. Many services firms take an interest in all modes of supply and various degrees of restrictions on different modes distort their choices of business models: if one mode is disrupted (restrictions

¹⁴ UNCTAD, World Investment Report, 2023, UNCTAD. There is further work to breakdown the global data at the economy level and to form aggregates for the APEC membership.

¹⁵ Kyvik Nordås, H., Lodefalk, M. and Tang A. (2022). Exports and foreign direct investment: Theory and evidence from services firms. Mimeo, Örebro University.

on face-to-face contact during the pandemic for example) then providers might put more weight on another mode (digital transactions for example).

The application of digital technology to services is meanwhile transforming their tradability. Many services involve the analysis of information provided by the client to the services provider. That information can now be translated more easily into digital formats and there is a wider range of analytical tools that can be applied (AI for instance). In this situation there is not only more scope to provide value to the client but also elements of the value-adding activities can more quickly and easily be used in different places (when for example medical diagnosis occurs some distance from the client). The need for proximity of buyer and seller is reduced and services output becomes more storable: some of the constraints on productivity growth are reduced, along with the other benefits of participation in trade. The growth of the business processing sector is an example of the evolution of trade in this setting.

The 2022 Policy Brief noted the already high level, as well as the growth and resilience, of digital services trade. Before reviewing the data, we refer to ADB's discussion of the concept.¹⁶ It suggested that some services are in principle digitally deliverable, while others might not be. The amount actually digitally delivered corresponds to the category of mode 1 trade in services. A list of several sectors that meet the condition of being deliverable digitally is then specified and then their trade is used to measure digital services trade. The links between these elements are illustrated in Figure 3.

Figure 3: Digital Services Trade



Source: ADB, *Unlocking the Potential of Digital Services Trade in Asia and the Pacific*, ADB, 2022. See also The International Monetary Fund, the Organisation for Economic Co-operation and Development, the United Nations and the World Trade Organization. 2023. *Handbook on Measuring Digital Trade*, second edition. Geneva, UNCTAD (Chapter 2 in particular).

¹⁶ ADB, *Unlocking the Potential of Digital Services Trade in Asia and the Pacific*, ADB, 2022.

Digitally deliverable services,¹⁷ (hereafter “digital services”¹⁸) grew at 8 per cent a year from 2005 to 2022, which was faster than the rate of growth of goods trade (5.6 per cent) and other services (4.2 per cent). Though the majority of digital services exports are from developed economies, some developing economies are significant contributors. Asian economies are competitive in digital services, accounting for 25 per cent of world exports in 2022, with the share growing faster than other regions. Digital services are now 55 per cent of global services exports and almost 64 per cent of services exports of Asian economies.

The COVID-19 pandemic had a significant effect on the composition of world services, with some sustained consequences. From 2019 to 2020, the share of digital services in total APEC trade in services jumped 14 percentage from 48 per cent in 2019 to 62 per cent in 2020. This is evident in Figure 4 which shows APEC’s non-digital services trade dropped 44 per cent (5 percentage points more than the global average of 39 per cent). APEC’s digital services trade increased by 1.2 per cent, running counter to a 3 per cent global decline. The regional trade story for non-digital services involved a dramatic decline, as restrictions were applied to personal interactions, while robustness in digital services trade clearly contributed to regional resilience. Digital services trade grew even faster in 2021 while non-digital services trade also rebounded.

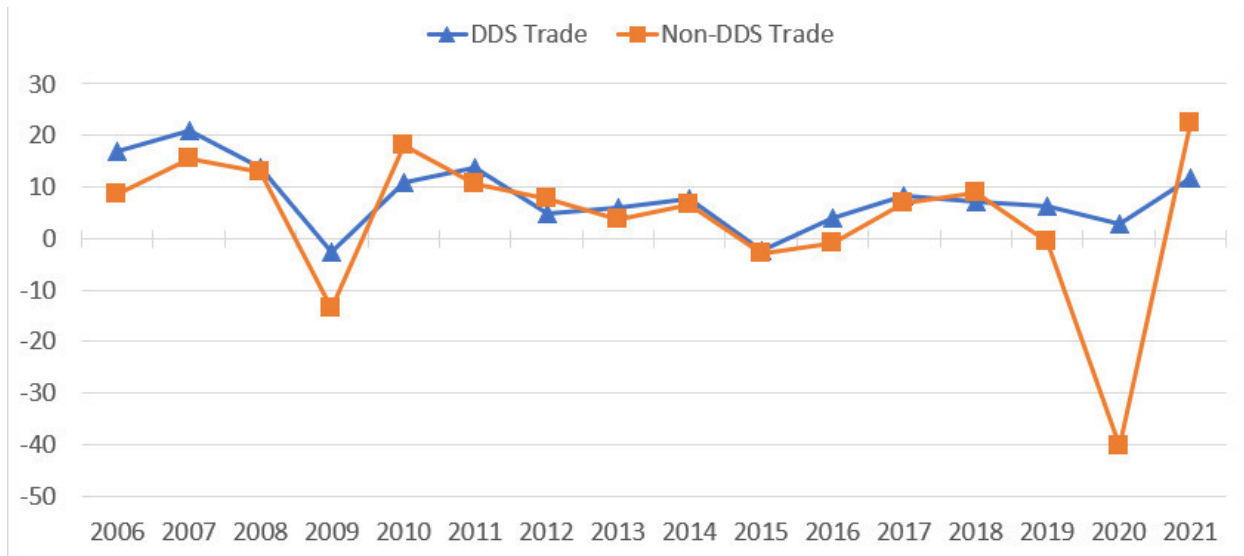
The strong performance of digital services in the last decade or more has shifted thinking about priorities in trade policy. International agencies such as the World Trade Organization (WTO), World Bank, UNCTAD, IMF and OECD are increasingly focused on the scope for services to contribute to development.¹⁹ The Director-General of the WTO, recently observed: “*We say the future of trade is services; it’s digital.*” She added that trade is green and should be inclusive.²⁰

¹⁷ World Bank and WTO, Trade in Services for Development, Fostering sustainable growth and economic diversification, World Bank and WTO, 2023.

¹⁸ Annex 1 of the 2022 Policy Brief provided a detailed discussion of the definition of digital services trade. In sectoral terms, digital services include insurance and pension services; financial services; charges for the use of intellectual property; telecommunications, computer, information services; business services; and personal, cultural, and recreational services. Non-digital services include manufacturing services on physical inputs owned by others; maintenance and repair services; transport; travel; construction; and government goods and services. For further discussion of the nature of digital trade, see WTO, Handbook on Measuring Digital Trade, 2nd edition, WTO Geneva 2023.

¹⁹ See IMF, OECD, United Nations, World Bank, WTO, ‘Digital Trade for Development’, Geneva, 7 Dec, 2023.

²⁰ [WTO Director-General Says Future of Trade Is ‘Digital, Green and Inclusive’ > Press releases | World Economic Forum \(weforum.org\)](https://www.wto.org/press-releases/2023/03/23-digital-green-inclusive.htm)

Figure 4: Average rate of growth of digital and non-digital services trade, 2006 to 2021

Source: APEC PSU calculations based on UNCTADstat data and the ADB methodology. Data do not include Brunei Darussalam; Peru; Viet Nam, due to incomplete coverage.

Services are closely associated with the application of digital technology. The infrastructure on which it is delivered is itself supported by trade in services, linked to the enabling infrastructure. Services provide the enabling infrastructure for digital transactions and e-commerce.

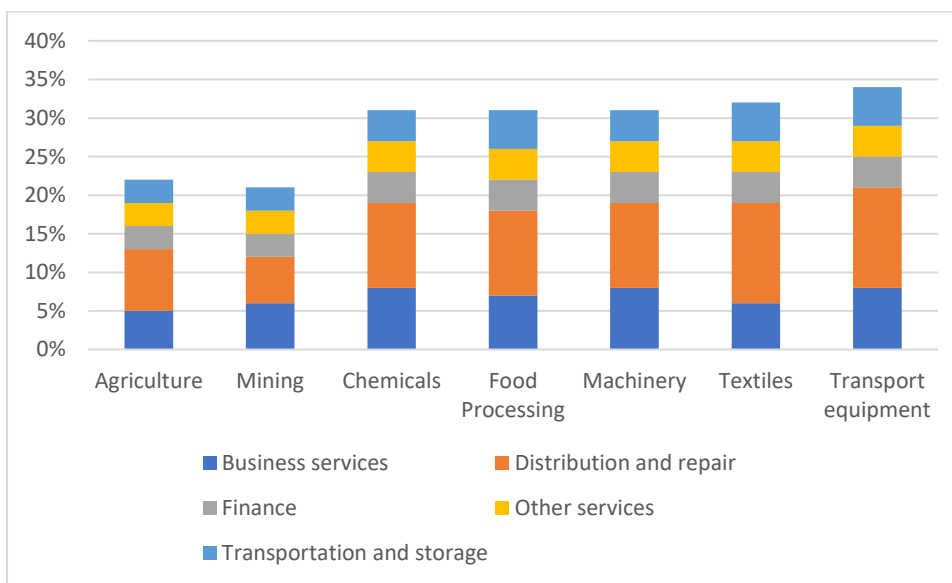
There is a further dimension to examine when assessing the significance of services in world trade. Just as we consider, in all domestic input-output analysis which makes up the National Accounts and delivers the data measuring services industry value-added output, we need to consider the significance of services trade in value-added terms. Services play a critical role in the operation of global value chains via services that support the movement of products, such as transport. They are also embodied as intermediates in products that move along those chains. Their value-added is incorporated downstream in the cost of goods. Services contribute in a similar manner to global value chains in services. Access to services of global quality facilitates the entry of or upgrading of the position of developing economies in global value chains.

This contribution is evident in the high share of global services trade which takes the form of intermediate rather than final services (this share increased during the pandemic). The share of intermediates in global services trade is even higher than the share of intermediates in global goods trade. It is also evident in the contribution to value-added content in all merchandise

exports. OECD TiVA data, now available for 2020²¹ (see Figure 5), confirms the high levels of services content in merchandise exports: this is especially noticeable for exports of transport equipment where the APEC average services value-added now reaches 34 per cent.

In our 2022 Policy Brief, where we reported the 2018 data, we observed that reforms (e.g. in the distribution services sector or in business services) that add to the efficiency of the delivery of those services could add to competitiveness in all exported goods sectors. The WTO observed²² that trade in services (leading to higher shares of services in value-added) adds to manufacturing competitiveness.

Figure 5: Services share of Value-Added in Merchandise Exports, 2020 (APEC average)



Source: OECD Trade in Value-added TiVA 2023. Note: Papua New Guinea is not included.

We note in passing here that the OECD TiVA data is becoming increasingly relevant to any discussion on domestic structural reform. Despite the unavoidable time lags involved in long-term data collection, the TiVA data series nevertheless enables deep insight into the underlying structural changes taking place in the services composition and destination of both exports and imports and the associated extent of participation in both downstream and upstream value chains, including with individual trading partners. To date, the TiVA data remains an underutilised resource in domestic economic analysis and in APEC conversation around

²¹ OECD Trade in Value-added TiVA 2023. ([Trade in Value Added - OECD](#))

²² WTO, 2019. World Trade Report 2019: the Future of Services Trade, Geneva. WTO.

services competitiveness and structural reform. There is value in launching further work to close this gap²³.

There is another emerging evidence base showing how the use of digital services and technologies can make it easier to achieve multiple objectives across many of the Sustainable Development Goals (SDGs) including by monitoring and helping to achieve energy efficiency (at both domestic and business levels); facilitating the reuse of components and materials for the circular economy; managing traffic; helping the agricultural sector to measure and reduce water and fertiliser consumption; monitoring the climate and carbon emission reduction process; and enabling environmental mitigation activities of all kinds. Recent work by the Global Enabling Sustainability Initiative (GESI)²⁴ shows that of the 169 SDG targets, 103 are directly influenced by digital technologies. Analysis of 20 targets and their indicators across the SDGs suggests the expected deployment of existing digital technologies will, on average, help accelerate progress in environmental sustainability by 22 per cent and mitigate downward trends by 23 per cent.

Trade in all the digital services that contribute to these activities, including cross-border flows of data and cross-border movement of natural persons with the expertise these activities demand, will be important. The WTO explains²⁵ that trade in environmental services can help economies transition to a low-carbon economy. Examples are the application of services to support the construction and operation of renewable energy generation capacity, various advisory services related to reducing carbon emissions, services support for technological change in manufacturing, advisory services in agriculture concerning land use or methane emissions, and services related to testing and certification systems.

This Policy Brief perspective on the evolution of services helps explain the interest in their intensifying contributions to productivity, as well as resilience and inclusion. It shows that a positive contribution is more likely when the right drivers of competitiveness are in place. Part 3 shows how these drivers are also key elements of structural reform and makes the case for linking the services competitiveness and structural reform agendas in APEC. Many policy issues that arise for services relate to regulation and competition policy, which are also core components of the structural reform agenda. Openness is also a critical component of competitiveness.

²³ To give one example of how long run TiVA data analysis, combined with use of the APEC STRI, might contribute to structural policy formulation, including by identifying services comparative advantage, see Australian Services Roundtable Statistical Showcase 2021 http://australianservicesroundtable.com.au/wp-content/uploads/2020/12/225-001-Statistical-Showcase-Australia_s-Services-Industry-2020-v4_HR.pdf

²⁴ [GeSI - Digital Access Index - Global e-sustainability initiative](#)

²⁵ WTO, 2022. World Trade Report 2022: Climate Change and International Trade, Geneva. WTO.

Drivers of competitiveness

2.1 Markets and Other Drivers

We have explained that the relatively recent growth of the services sector is associated with the development of markets in which services can be transacted, domestically and internationally. Key drivers of services growth and determinants of competitiveness can be found among the factors that support the development of these markets. And better functioning markets can support the ongoing growth of the services sector. An essential theme of this Policy Brief is the relevance of the structural reform agenda in supporting services competitiveness. That connection is evident as structural reform policies are designed to “make markets work better.”

The first of these drivers is the level of confidence in the creation and implementation, including enforcement, of business contracts. Relevant in that case is the quality of institutions, including the rule of law. There is research linking institutional quality to services sector performance.

The second is the extent to which the circumstances of a particular location facilitate the operation of markets, in outputs (the discovery by buyers and sellers of each other) and inputs (accessing appropriate infrastructural services, entrepreneurial innovation and skilled human resources). One aspect of these processes is the agglomeration that occurs in urban areas, and some authors argue that “cities drive the services sector.”²⁶ The quality of infrastructure (telecommunications, broadband and mobile internet, transport, finance, health, education and other amenities) matters for success in this respect. Box 3 provides an example of the concentration of new firms in knowledge-intensive (services) activities compared to other sectors, pointing to the value of circumstances that facilitate the ability of participants in these markets to capture the spillover of ideas from each other.

Box 3: Locations of new firms

Data are available on the changes in the locations of firms in the city of Inner Melbourne, Victoria, Australia. The figure shows trends for the period 2009-2017 in the location of new firms (each green dot shows an increment of at least 10 new firms (net) and each purple dot shows a decline). Points of interest include:

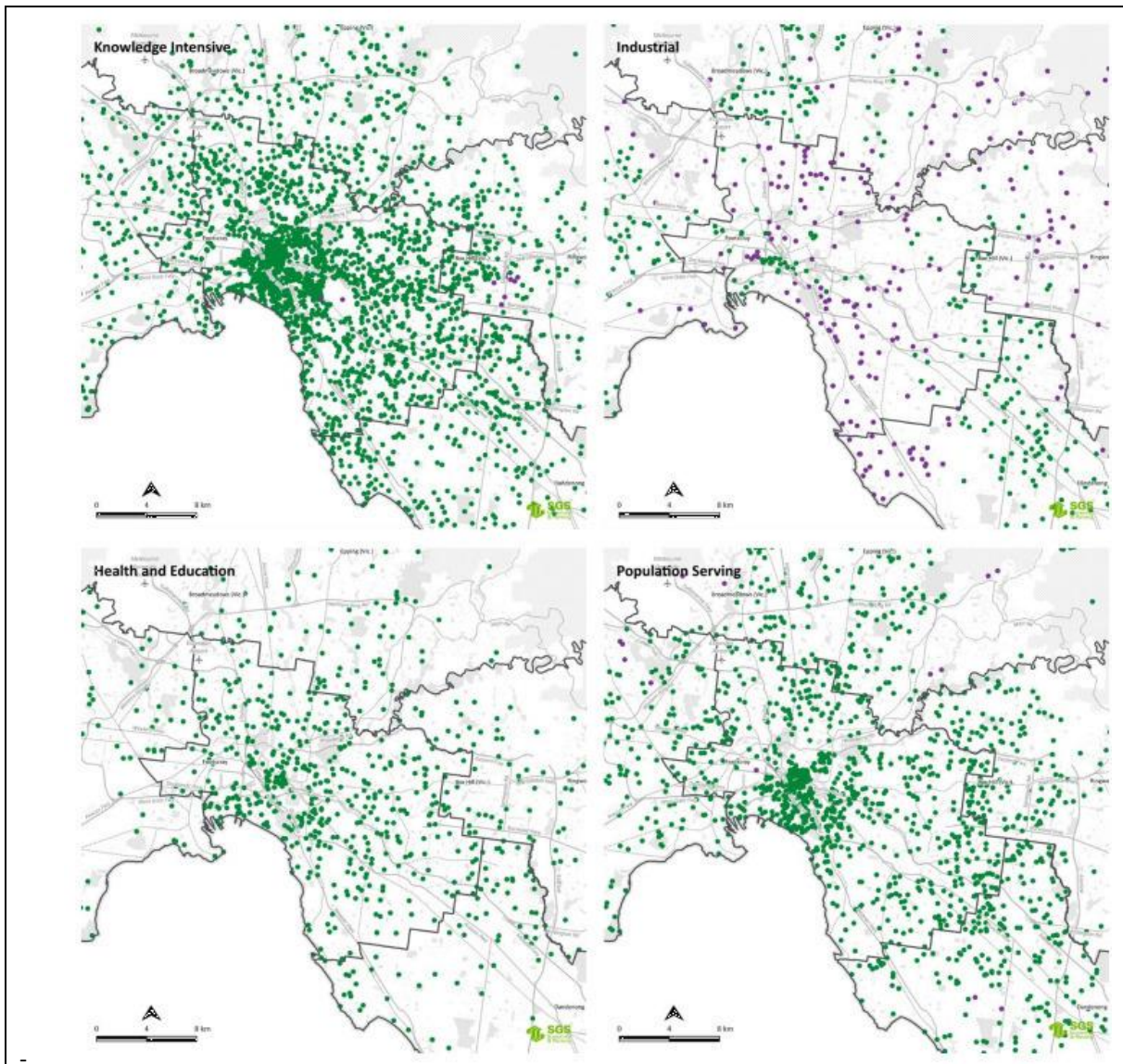
1. Business creation is strongest in knowledge-intensive (likely to be services) businesses, and most concentrated in the inner subregion.
2. New knowledge-intensive businesses have nevertheless been opening across the whole region.
3. There has been a net reduction in the number of industrial (manufacturing) firms across many inner and middle-ring suburbs, which reflects the gentrification of some areas as old industrial lands have been transformed into new housing developments and change in land use to accommodate rising demand for commercial space close to the CBD. On the other hand, there was a net increase in firms around key industrial precincts in the west, north and south.

²⁶ [SOAC Chapter 4.pdf \(infrastructure.gov.au\)](#) The talking points are quoted from p. 11 of SGS, Melbourne Functional Economic Region Report, 2019, SGS Melbourne.

4. Business creation is ubiquitous for population-serving (local customer-serving) firms including health and education firms.

Notable therefore is the concentration of high-skill services firms, which are not locally focused in their sales. The industry (or manufacturing) sector need not be locally focused either, but the pattern of its location involves a relocation to a more diverse set of locations. It appears the value of proximity is greater for the former category of firms, and the idea is that this value is driven by the spillovers of information which proximity facilitates and the more efficient operation of markets for workers with these skills.

These trends have important implications for the availability of various types of infrastructural services to facilitate the adjustment.²⁷



Source: SGS Economics and Planning at [SGS-Melbourne-Functional-Economic-Region-Report-March-2019.pdf](https://www.sgs.com.au/~/media/SGS_Economics_and_Planning/Melbourne_Functional_Economic_Region_Report_March_2019.pdf)

A closely related third driver is the capacity of the public infrastructure of an economy to provide access not just to transport routes but specifically to communications, especially in digital

²⁷ The role of amenities in attracting skilled migrants is examined by Glaeser, E.L., Kolko, J. and Saiz, A., 2001. Consumer city. *Journal of economic geography*, 1(1), pp.27-50.

formats (broadband and mobile capacity).²⁸ An important element in the context of digital technologies is access to platforms of various sorts that lower the costs of successful searches. An example of the contribution from clarity around contractual arrangements to the growth of market transactions, including across borders, is set out in Box 4 describing new work being developed by the APEC EC on financial services related to heavy equipment.

Box 4: Financial services contracts

A proposal from the United States for further work in the APEC Economic Committee notes:

The global market for mining, agricultural and construction (MAC) equipment is hugely important, accounting for approximately USD 200 billion annually. Yet, the financing of MAC equipment remains challenging in many parts of the world. Financial institutions are unwilling to provide credit to companies in the MAC sectors to purchase or lease equipment, due to uncertainty created by domestic laws, the possible movement of assets across borders, or challenges in enforcing legal rights. This uncertainty limits credit availability for MAC equipment across the globe

The proposal refers to an international protocol that enables creditors and debtors to create effective security rights and leasing agreements in equipment that enjoy cross-border effectiveness. The security rights and leasing agreements can be registered in an electronic, 24/7 accessible international Registry, that ensures effectiveness against competing interests and transparency in determining which creditor has legal priority. The Convention and the Aircraft Protocol also provide effective enforcement measures where the debtor defaults or becomes insolvent.²⁹

The proposal goes on to argue that having more economies sign on to the existing protocol would facilitate the delivery of financial services across borders in the MAC sector, which “would facilitate access to credit, regional trade, improve productivity (and) boost economic development.”

In summary, the set of conditions related to successful contracting in services market transactions is a starting point for consideration of the drivers of competitiveness in services. These include the rule of law, locational characteristics including urban conglomeration and the quality of infrastructure, especially for digital transactions.

The 2022 Policy Brief referred to recent literature³⁰ which identified several other fundamental enabling factors, such as successful connection of markets in services across economies; regional market seamlessness is a function of openness to trade and investment, commonality in regulatory approaches, and adoption of international standards facilitating business interoperability; and domestic regulatory regimes of entrepreneurial innovation eco-systems.

As noted in the 2022 Policy Brief; economies do not need to be equally well-placed in all dimensions to succeed. The overall ecosystem is what matters. There is also interaction

²⁸ As noted, there is an association of service sector size and GDP per person. A contributor is also the demand effects of income growth (demand for some services by households for instance may grow faster than income) but also GDP per capita is associated with the institutional development (e.g. the rule of law) and the urbanisation that also supports service sector development. There are also demand-side influences on the size of the sector, that is, demand for some services grows faster than income. The relative importance of these factors and the nature of their links to growth in GDP per capita is a topic for continuing attention in research.

²⁹ Source of the image is [MAC Financial Services – Providing financing for all types of equipment. \(macfs.com\)](https://www.macfs.com/)

³⁰ We refer here to the 2022 Policy Brief which in turn referred to work on the drivers of services competitiveness from the 2016 Economic Policy Report, and to work in the ADB on drivers of competitiveness in digital services. Also relevant is World Bank work on trade in services for development.

between the drivers, for example, barriers to trade in services are strongly interlinked with the performance of regulatory regimes. The relevant set of enablers also evolves over time; there is now a much greater focus on those linked to the uptake and application of digital technologies. Governments have contributions to make with respect to all these items: the set of contributors to services competitiveness aligns generally with the components of structural reform.

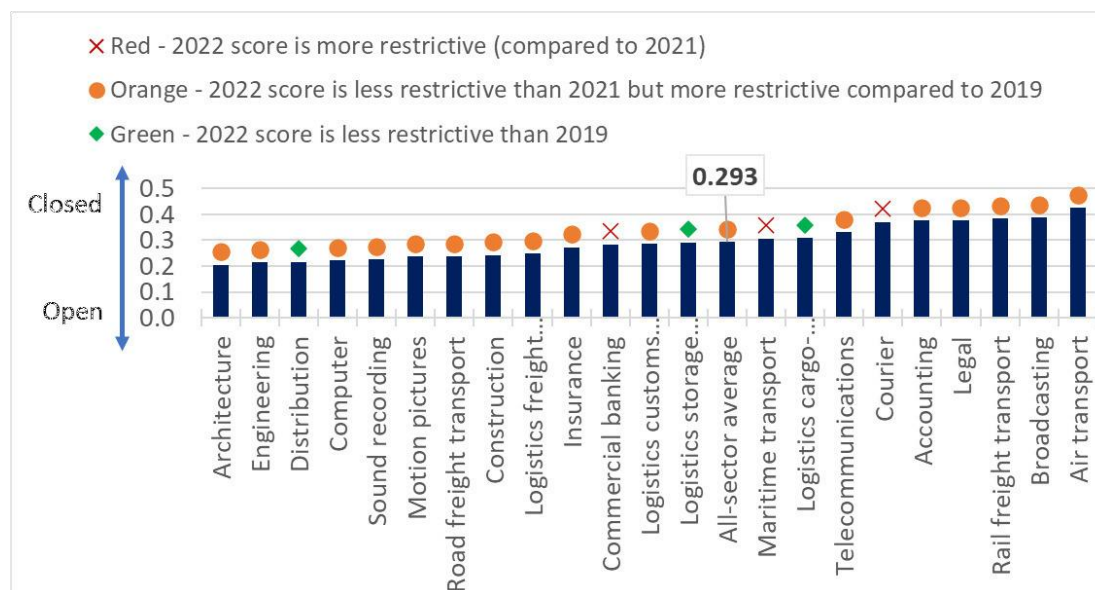
Next, we consider some of these drivers in more detail.

2.2 Openness and Regulation

Impediments to trade apply across all modes of supply and take various forms. The new APEC Index³¹ identifies barriers to foreign entry and movement of people, barriers to competition, lack of regulatory transparency, and other discriminatory measures. For each services sub-sector, policies are scored (a lower score is more open) and combined by sets of weights reflecting the relative importance of the measures. These indices can be combined by sector across economies (as in Figure 6) or by economy across sectors. Figure 6 shows the range of scores by sector. There has been some significant recent change in aggregate APEC scores as indicated by the colour codes but there is also considerable variation among economies: “All economies” in the APEC Index have sectors and policy areas where there is scope for reform, whereas at the same time all economies have areas of good performance that could be a model for others.³² The pattern of restrictions by sector in APEC is consistent with the global pattern. The all-sector APEC average is 0.293.

³¹ [APEC Services Trade Restrictiveness Index - APEC Services Trade Restrictiveness Index \(apecservicesindex.org\)](https://apecservicesindex.org)

³² OECD and APEC Group on Services, The APEC Index for Measuring the Regulatory Environment for Services Trade in the APEC Region, (nd) [\[Title\] \(apecservicesindex.org\)](https://apecservicesindex.org)

Figure 6: Restrictions on trade in services

Source: MTR of EAASR/PSU

The highest barriers are those affecting commercial presence/establishment, which the PSU reports are relatively high compared to the OECD average. Generally, the next most important are restrictions on the movement of people and regulatory transparency. However, as noted above, the operation of services business models often includes all modes of supply, so the overall index as well as its sectoral and model components are all important guides for policy reform, both through domestic structural reform efforts or through trade negotiations.

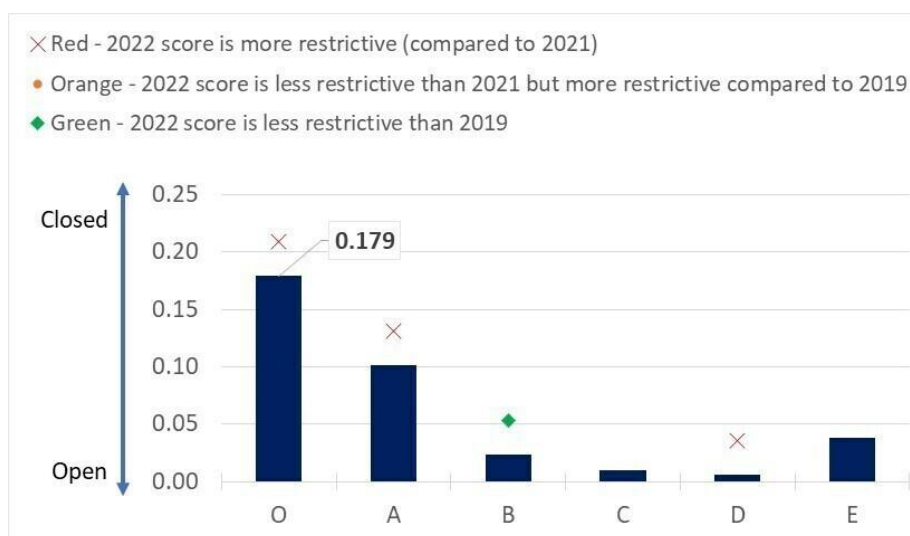
There are various applications of the Index in policy work.

“Stakeholders can benefit from use of the Index in several ways. For policymakers, the Index can assist in identifying domestic regulatory reforms and services sectors that may need further exploration and concrete reform options, including foreign ownership and other market entry conditions. The Index can also evaluate and quantify the impact of domestic regulatory regimes and services liberalization. Services trade negotiators can benefit from the available information on the evidence base of market access and domestic treatment limitations applied by trading partner economies. This information provides a valuable reference for formulating strategies for negotiating services trade. The Index can also help to explore the potential for diversification and expansion of services sectors in international markets. Moreover, it serves as a useful reference for academics to perform analytical work on the impacts of services, trade reform, and other

studies. Lastly, businesses can acquire information about the requirements they must comply with when entering foreign markets.”³³

Policy on data flows demands specific attention, because of its underlying significance for all digitally-enabled services. Of concern in Figure 6 is the relatively high score for telecommunications, itself a critical component of the infrastructure for digital enablement. The policy information base for the APEC Index has also been recombined into an index that is directly focused on digital services transactions. The result is shown in Figure 7.

Figure 7: APEC average digital STRI score in 2022



O=Overall score; A=Infrastructure and connectivity; B=Electronic transactions; C=Payment system; D=Intellectual property rights; E=Other barriers affecting trade in digitally enabled services. Source: APEC PSU.

Overall, and this is a global trend, digital restrictions are increasing. As we reported in the 2022 Policy Brief:

- about 18 per cent of global trade in digitally-enabled services is now impacted by data localisation,
- more than one-third of these measures affect the use, storage and transfer of data, while other new restrictions are also impacting cross-border online payments, internet banking, downloading and streaming,
- over 2014-2020, the overall STRI for all economies in the OECD data set shows there have been globally more than twice as many restrictive measures introduced than liberalising measures,
- there was some improvement in 2020, when new policy measures were taken that facilitated digital services trade, particularly regarding e-signatures and e-payments. Policy responses to the pandemic also contributed, as governments supported business

³³ Edited version of remarks by Basaria Tiara L Gaol, Ministry of Trade, Indonesia at the EC/GOS/DESG Dialogue on Structural Reform and Services, 22 February 2023, Palm Springs.

efforts to accommodate remote working and expand online operations via some temporary easing of regulatory restrictions.

The case remains, especially considering the apparent deterioration in the APEC DSTRI, that it is important for APEC economies to consider whether all the liberalisation experienced in 2020 needs to be reversed in the post-pandemic environment and how the build-up of barriers over past years, particularly in key enabling services such as telecommunications and computer services, can be reversed.

The OECD has also recently reported³⁴ on the nature and extent of data localisation measures:³⁵

- More than half the restrictions now in place have emerged since 2015,
- These measures are becoming increasingly restrictive, especially outside the OECD economies,
- The nature of measures varies according to the type of data involved,
- The business community refers to these measures as raising trade costs by at least 15 per cent and as much as 55 per cent.

The OECD points out that these measures not only increase costs for consumers but also add to vulnerabilities to both fraud and cybersecurity risks. They reduce resilience, despite that objective being the rationale for their adoption. The OECD points out that these measures are particularly burdensome for cloud services providers, as explained in Box 4. The use of cloud services notably offers users big opportunities for scalability and well as pay-as-you-go models.

Box 4: Cloud Services Providers

The cloud” refers to software and services that run on the Internet, instead of locally on your computer. Basically, instead of saving something to your computer’s or your phone’s storage, you save it to the internet. Most cloud services can be accessed through a web browser like Firefox or Google Chrome, and some companies offer dedicated mobile “apps.”³⁶

Time-sharing of computers had been talked about for decades. Telecom companies began in the 1990s to offer private networks using their infrastructure. As computing capacity was increasingly widespread, efforts were made to develop systems of communication and the allocation of their available capacity. So the cloud is an internet service, and it offers remote computing. In 2002, Amazon Web Services was launched, and Microsoft released Azure in 2010. Customer-specific software can be used, or standard applications. Multiple sites (or a value chain approach) are used for resilience, for facilitating regulatory compliance and for competitiveness reasons i.e. capturing the benefits of specialisation and product differentiation benefits of providers. There are now many providers: see Figure 8.³⁷

³⁴ Javier Lopex-Gonzalez, Janos Ferencz, and Chiara Del Giovane, The nature, evolution and potential implications of data localisation measures, TAD/TC/WP(2023)7

³⁵ The OECD identifies options with increasing levels of restrictiveness: local storage requirement but no restrictions on data flows; local storage and processing requirements but cross border access is possible in some well-defined circumstances; and mandatory local storage and processing requirements with prohibition of data flows offshore.

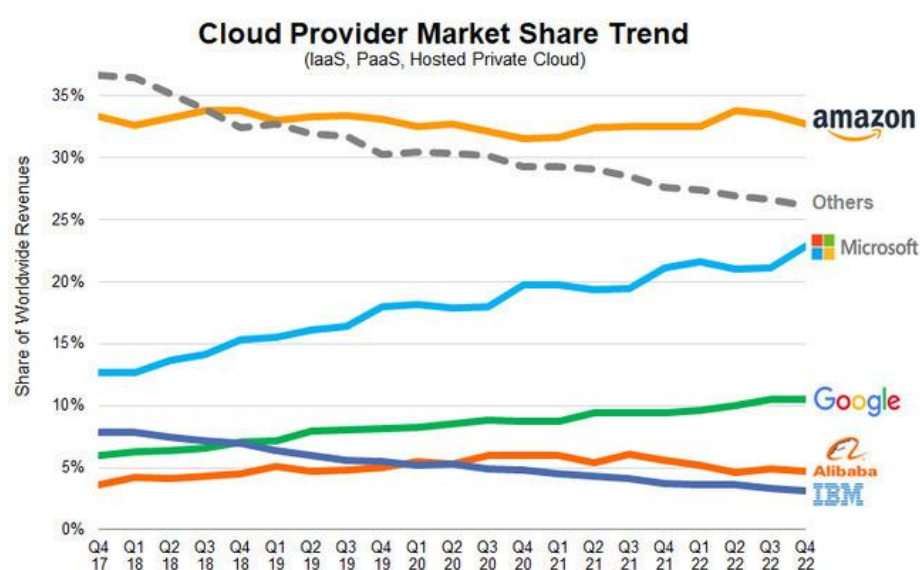
³⁶ [What is the Cloud? | Digital Ready](#)

³⁷ The figure is found at [Q2 Cloud Market Grows by 29% Despite Strong Currency Headwinds; Amazon Increases its Share \(prnewswire.com\)](#). IaaS, or infrastructure as a service, is on-demand access to cloud-hosted physical and virtual servers, storage and networking - the backend IT infrastructure for running applications and workloads in the cloud. SaaS, or software as a service, is on-demand access to ready-to-use, cloud-hosted application software. See [IaaS vs. PaaS vs. SaaS | IBM](#) Some users might have a ‘private cloud’ which is hosted by the providers. A mix of public and private or hybrid has been referred to as the ‘new normal’.

The cloud allowed for computing services to be contracted out (software became a service and transactions were organised in competitive global markets). As with many other services, cloud services turn the fixed cost (of buying software) into a variable cost depending on demand. The cloud is a good choice for start-ups since it is 'elastic', reduces setup costs, capacity can match variations in demand, facilitates experimentation and automatically keeps up to date with technological change.

This business model requires that data be transferred, and stored, including across borders. Trade in digital services is facilitated by the use of the cloud, which provides access to infrastructure and connectivity, supported by electronic payment systems, but is impeded by policies restricting data flows across borders including for storage and processing.

Figure 8:



Source: Synergy Research Group reported at https://www.theregister.com/2023/02/07/big_three_cloud_market/

There is also a growing evidence base that data localisation restrictions negatively impact digital services trade. The ADB found that for the Asian region, these requirements bring an estimated 15 per cent reduction in digital services imports. The downward impact on the region's digital services exports is even larger. The OECD, UNESCAP and others (OECD et al, 2022) found a strong correlation at both global and regional levels between the openness of an economy's digital services regulatory environment and its overall trade in services performance. This correlation holds for APEC members.

We referred earlier to the importance of regulation for the efficient operation of services markets, both from its absence and from problems and issues with existing and proposed regulations. As stressed in the 2022 Policy Brief, what also matters from a competitiveness perspective, are digital regulatory divergences between economies. These divergences add to the costs of doing business across regional markets, with the heaviest relative impact on smaller enterprises. It is important to note the relation here between trade costs and who is engaged in trade. Only the

most productive firms can engage in trade when trade costs are high. Regulatory divergences can therefore amount to a trade barrier in their own right even if the motivation for the regulation is legitimate. OECD measures of policy divergence show that APEC economies currently have more divergent services trade policies than the global average, and the difference is larger for telecommunications than for professional services, for example.

There is also evidence that as other trade barriers are liberalised and trade costs fall, regulatory divergences tend to become an increasingly important barrier.³⁸ As noted in the 2022 Policy Brief, collaboration towards regulatory equivalence, convergence or even harmonisation, where possible, needs to take centre stage in the policy reform process.

There is also significant empirical evidence of the extent of trade costs associated with regulatory differences. The OECD has examined the contribution of implementing the APEC Non-Binding Principles on Regulation in the Services Sector to streamlining regulation and reducing trade costs,³⁹ finding that:

- trade costs in the APEC region could potentially be reduced over the next 3-5 years by an average of 7 per cent across all sectors and economies:
 - 14 per cent for telecommunications,
 - for computer services, for 8 of the 14 economies in the data set, trade costs would fall by over 11 per cent and for 5 of those economies, by over 15 per cent,
 - for other commercial services, the drop in trade costs exceeds 29 per cent for 9 economies.
- the estimated reductions in regional trade costs are 2-3 percentage points bigger for SMES, that is, an average of 9 or 10 per cent. The benefit for SMEs would be even larger in sectors such as computer services, telecommunications, and e-payments.

These costs on business connectivity across regional services markets, and the productivity gains entailed in their reduction, highlights the value in jointly reviewing regulatory design.

The 2022 Policy Brief emphasised the need for all APEC economies to engage more fully in international discussions to shape the international governance of digital trade. It stressed that on regulatory matters, it is important not to 'go it alone' but to participate with others, in regional and international dialogues. The task is to work towards consensus-based common frameworks and international standards and to adopt good regulatory practices. However, some economies are showing an inclination to design and adopt individual approaches to data localisation and transfer. While it takes time to reach international consensus, going it alone only adds to that

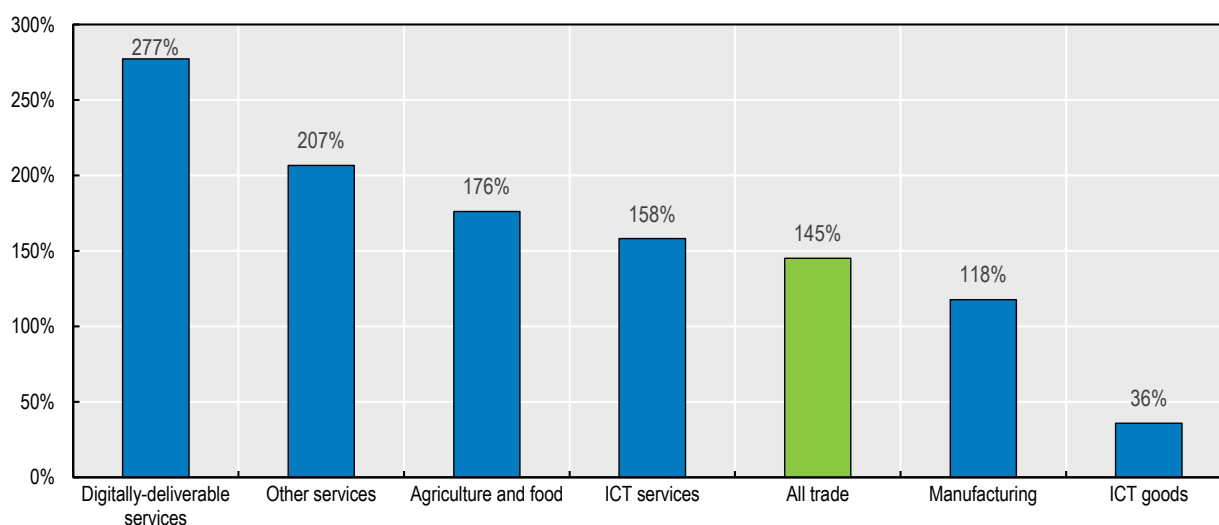
³⁸ Kyvik Nordås, H. (2016). "Services Trade Restrictiveness Index (STRI): The trade effect of regulatory differences." OECD Trade Policy Papers, No. 189, OECD Publishing, Paris

³⁹ OECD. (2021). "Lowering APEC trade costs through services domestic regulation reform," Trade Policy Brief, OECD Publishing, Paris, June.

time, leading to cumbersome subsequent negotiations. Those wanting to move more quickly could take a sandbox approach to trial options and share the results of which would benefit all.

It is important to note that domestic efforts to reform digital regulation can deliver strong benefits for exporters. Figure 9, based on the total OECD data set, shows the impact, including across broad industry sectors, of reforming restrictive digital regulations on trade. A 0.1 percentage point reduction in the DSTRI can deliver a 145 per cent total increase in trade for the economies in the data set. For trade in digitally delivered services, the trade impact of reform is nearly double.

Figure 9: Trade Impact of Decreasing Domestic DSTRI by 0.1 point. (2014-2018 data)



Source: Lopez-Gonzalez, Sorescu and Kaynak (2023) “Of bytes and trade: quantifying the impact of digitalisation on trade”, OECD Trade Policy Papers, no. 273, reproduced in OECD, “Key Issues in Digital Trade”, October 2023

Note: Values show the impact of reducing digital trade restrictiveness, captured by a 0.1-point reduction of the DSTRI, on exports.

A related point concerns the development of technical standards for services. These are voluntary standards developed by industry in collaborative multistakeholder structures such as the international standard-setting bodies. Examples include the standards applied to transfers of data involved in digital services trade.⁴⁰ These standards may not be binding but can become so if they are referred to in regulation. Again, governments that ‘go it alone’ can contribute to the fragmentation of markets. A preferred approach is to allow international institutions to reach a consensus and to support the active participation of domestic standards bodies in those

⁴⁰ For example, in the case of Australia, ‘in March 2020, Standards Australia released the Artificial Intelligence Standards Roadmap: Making Australia’s Voice Heard. The report, commissioned by the Government, provides recommendations to help Australia effectively support artificial intelligence (AI) and its future across the globe. It also provides a framework for Australia to influence the development of standards for AI internationally.

To achieve these goals, the Government has allocated funds ... to increase Australian experts’ participation in international AI standards development. Standards Australia is also increasing the membership of the AI standards Mirror Committee in Australia to include participation from more sectors of the economy and society in the development of AI standards.’ [Artificial Intelligence Standards Roadmap | SEAP \(services-exports.gov.au\)](#)

processes. Another benefit of this approach is that small economies and small enterprises are not 'steamrolled' by large economies or large multinationals seeking to dominate the standards-setting process in their own interests. Once again, exploring reforms using sandboxes could be an option for those wanting to move more quickly. Box 5 provides an example of efforts to develop and apply consistent QR payment systems in ASEAN.

Box 5: QR payments systems in ASEAN

The ASEAN Leaders Declaration on Advancing Regional Payment Connectivity and Promoting Local Currency Transaction, adopted in May 2023, is directed at setting up a regional cross-border payments network through a Quick Response (QR) code.

The COVID-19 pandemic catalysed the adoption of digital payments, from which significant productivity gains arise, for example;

- the much greater amount of information that a QR code holds within a compact space, compared with a barcode.
- the greater efficiency with which data can be captured and transferred in one swift focus of a mobile phone or QR code scanner
- the higher degree of accuracy and security in transactions which can be ensured with the programming of QR codes to contain unique sets of encrypted information
- the win/win deal from a merchant-patron perspective, in the convenience of using a mobile phone and the cost reduction in generating a QR code without the need for a separate point-of-sale terminal and accompanying transaction fees.

As a result of cross-border QR payment initiatives launched in the region thus far (such as the Singapore-Malaysia and Indonesia-Thailand linkages, amongst others), travellers can also bypass the need to convert physical cash at money changers whilst obtaining competitive currency conversion rates that are transparent at the point of sale, potentially enhancing the use of domestic currencies in trade settlement and deepening local currency markets.



The main drawbacks are associated with cybersecurity and fraud, with users potentially being duped by malicious QR codes created by scammers. Having relevant institutions and regulations in place is a prerequisite for a region-wide initiative.

Agreement on a QR code standard for each economy would be the next fundamental building block. The agreed standard will facilitate interoperability of the QR code payment system both within each economy and across borders, with the choice of the standard ideally meeting international best practices to facilitate regional integration more easily.

There have been several bilateral cross-border QR code payment exchanges but the leap to a regional system is a work in progress. In work initiated by the Bank for International Settlements, a multilateral

model is being tested that would eliminate the potentially inefficient intertwining of various regional bilateral mechanisms into a more interoperable hub-and-spoke framework, featuring a central processing platform to manage cross-border payments and fund transfers within ASEAN.

Source: Edited and shortened version of Kristina Fong Siew Leng, 'Connecting the Dots: Towards an ASEAN QR Code Payments Network' 11 September 2023, at [Connecting the Dots: Towards an ASEAN QR Code Payments Network | FULCRUM](#) The image is from [street food with QR code - YouTube](#)

Guidance on regulatory design and cooperation is available from work to date on this project. This includes a set of principles to guide work at the economy level and in APEC on the design and process of regulatory reform. Box 6 draws on APEC presentations by Bernard Hoekman.

Box 6: Principles for Services Regulation Reform: Bernard Hoekman

Services are different from tangible products since they tend to be credence or experience-based, so consumers often have difficulty assessing the quality of services before they consume them. Asymmetric information between services producers and consumers calls for regulation, explaining why regulation is likely to be prevalent in services. Care must also be taken in its design and because of its prevalence doing so is a significant issue in services. Suggested here are six principles for success.

The first is that there should be a strong focus on processes of managing reform. The characteristics of services mean that there is also a lot more uncertainty about the effects of regulation and where regulation is needed or should be adjusted. So the processes that are used to assess whether or not regulation (or the absence of regulation) is still efficient, and whether it needs to be updated, are important. The design of those processes should be informed by engagement with people and firms who are active in the market. This demands a focus therefore on soliciting and generating information and doing that in a way that captures the spillovers from regulation applied to one set of activities for others.

The second principle is the value of flexibility and agility. There is no one-size-fits-all. Reform must be done case by case, taking account of the sector and economic circumstances that prevail. Reform also has to take account of technological change, which sometimes occurs rapidly. In combination, these conditions mean there are likely to be many and continuing changes in the market situation that affects particular services activities and therefore the regulatory reform effort needs to be flexible in terms of thinking about what might need to change, and what does not. A further implication is that the reform process is always continuous.

The third point is that there is a need to go beyond the sectoral focus that tends to be central to regulation. There are often specific regulations applied to particular sectors or activities. But often there are going to be complementarities and interdependencies across activities in different sectors. So there is value in cutting across the silo-based approach towards regulation.

- An example is e-commerce: many sectors have a bearing on the ability of firms to use e-commerce and for consumers to use e-commerce platforms. Relevant regulations range from those applied to financial services, to taxation, to data protection, and so forth. This example also illustrates the first design principle, that there is value in mechanisms through which different spillover effects can be assessed - changing regulations that are in place for particular activities have follow-on effects on other activities.

The fourth point is the value of looking beyond the domestic market and thinking about the potential consequences of regulation and regulatory reform for international services trade and investment – the ability of firms to export services and to insource services that are provided by suppliers that are located in another jurisdiction. All of those options can have strong positive productivity and welfare effects on both the production and consumption of services. And trade is an important channel for learning about new technologies for providing new varieties of services offerings in the market, and for generating competition for firms that helps them to improve their productivity. While regulatory processes are very appropriately focused on the domestic markets, it is important to also create incentives and mandates for regulators to consider the effects of applied policies and proposals for change on trade. This includes the

consequences for all modes of international business, including foreign direct investment (inbound and outbound).

- Take again the example of e-commerce. Data protection rules, rules on data processing, and local storage requirements for data are all things that might make sense from an economy perspective, in terms of attaining a particular regulatory objective, which might be data security or data privacy. However, these rules could have very adverse consequences for international trade insofar as they mean that firms cannot transfer data abroad for processing (the output of which might be used by local exporters).

A further implication of this principle is that there is value in international regulatory cooperation. All economies pursue similar types of objectives and confront similar types of constraints. They regulate in different ways, but quite frequently the goal of regulation is very similar. So insofar as they have equivalent objectives, one of the approaches that can be taken to regulatory reform is to do more to recognise as equivalent what is happening in other jurisdictions, and in that way, reduce the costs for firms that engage in international trade. Perhaps more importantly, doing so is a means of identifying more efficient and more effective regulatory approaches that have been used in other jurisdictions.

The fifth principle is to focus more on how to operationalise these principles. It's very important to have regular consultations with the private sector, not just a particular industry or activity that is regulated but done in a way that looks across the whole supply chain and that looks at where inputs are coming from and where outputs are being sold. This process must consider and solicit information from all the actors that are involved in a particular supply chain in a particular production process to understand what the effects are of current regulations, where there are gaps and where there is a need for updating.

The final principle is to allow for interaction with small and medium-sized firms that are more likely to be engaged in services activities, particularly the innovative small firms. These firms, for example, don't necessarily demand export credits or subsidies to expand their activities (common instruments in industrial policy for goods). They have different constraints on being able to deliver their services to their customers. Considering these constraints requires that attention be paid to the supply chain context. This approach could revolve around a new consultative mechanism, such as a platform where the different stakeholders that are involved in both the production and consumption of specific types of services can engage with each other and identify where reform should focus.

Source: Presentation by Bernard Hoekman at the APEC Joint Economic Committee (EC), Group on Services (GOS) & Digital Economy Steering Group (DESG) Dialogue on Structural Reform and Services, Palm Springs, 22 February 2023.

2.3 Services Innovation and entrepreneurship

We explained earlier the evolution of the services sector and its links to productivity growth. We commented on the ways that services firms use capital and the proposition that even small firms in the services sector can be highly productive. However, this requires that services firms operate in a successful innovation ecosystem. What are the key elements of this ecosystem?

The 2022 Policy Brief explained that innovation in services:

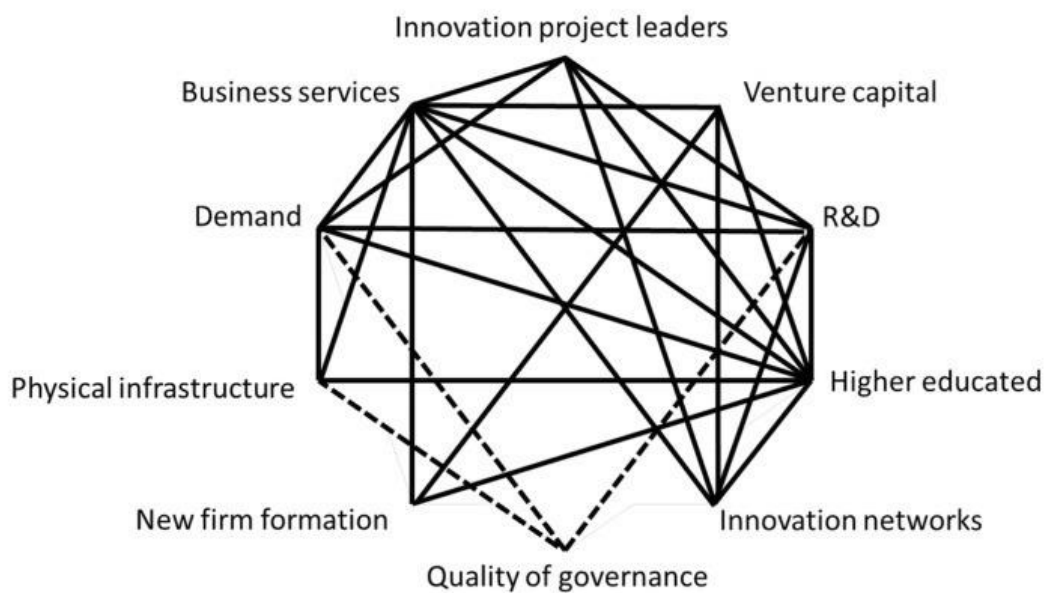
- tends to take place at the point of interaction between a services provider and the client,
- involves a flexible approach, constantly changing to solve client problems and meet new challenges,
- is people-driven as well as laboratory-driven and requires integrated input from operational, organisational, technical, and managerial staff, as well as researchers.
- tends not to take place as a specialised activity but to be inextricably tangled up with everyday creativity and problem-solving,

- tends to focus on new modal delivery methods as much as on new services offerings and on new business models to reach new markets,
- requires technological inputs but also non-technological inputs, involving the social as well as the natural sciences – and the creative arts and humanities,
- brings to the fore the softer aspects of innovation, based on the skills of employees and cross-professional and inter-organisational collaborative skills.

There is literature on the environment in which innovation flourishes, and in recent years, digital transformation of the economy has inevitably brought access to data flows to the fore. Figure 9 contains a general example. Success in innovation at the firm level, or even at the firm founder level, is influenced by factors such as financial resources, the quality of management and talent and the degree of competition in the sector. Also, what matters is a range of external factors such as access to business services, the size and quality of the available workforce, local leadership and governance, access to finance including foreign investors, the amount of relevant research taking place in local institutions, and how easy it is for services providers to connect to that research and knowledge. The figure helps identify areas in which policy areas can make a difference: elements listed in the 2022 Policy Brief were:

- regulatory predictability which also allows firms to respond quickly to change,
- dialogue among policymakers and regulators and the key agents of innovation such as founding entrepreneurs, tech talent and investors,
- openness to international engagement, trade, investment and cross-border data flows facilitating a collaborative cluster of talent and ideas.

Figure 10: The innovation ecosystem



Source: Stam, E. and A van de Ven (2021), 'Entrepreneurial ecosystem elements', *Small Business Economics*, 56: 809-832

The 2022 Policy Brief stressed that the earlier innovation ecosystems develop global connectedness, the quicker they take off, support start-up founders to go global, access export markets and create jobs. Start-ups with early global market reach see their revenue grow twice as fast as those focused on the domestic market and are more likely to become scale-ups.⁴¹

On leadership in the innovation system and its contribution to coordinating the elements in Figure 10, there are various candidates among the parties in the structure. Recently, the South Australia Productivity Commission has made the case for giving more attention to universities in that role. They make direct contributions in terms of education and through their graduates and research. But they can also take the role of matching businesses to research providers, “making markets” in other words, in order to facilitate innovation. The Commission identifies a series of policy changes, including funding models, to provide incentives to academic institutions to take on these roles.⁴² With respect to services innovation, which draws on many disciplines, Universities have the advantage of access to a wide range of fields of research.

2.4 Human Capital

Lack of access to skilled labour can act as a baseline constraint on competitiveness in services. Econometric work by the OECD and more recently by the ADB shows there are strong positive correlations between the numbers of tertiary-level graduates and services (including digital) trade performance. Overall service sectors tend to be relatively large demanders of skilled labour, accounting for the employment of a high proportion of tertiary graduates (85 per cent in the case of Indonesia, for example⁴³) as well as high school graduates as a share of the workforce, compared to manufacturing. The Australian case is shown in the table below.

However, services sectors also considerably in their skill levels; low-skill sectors still offer big ongoing opportunities for employment as do those parts of the services sector which contribute a greater degree to economic transformation.⁴⁴ A key challenge in many economies, therefore, is the capacity of tertiary education to produce the number of graduates in demand with sufficient quality. This includes not only the STEM fields but also the humanities. Here too openness matters – participation of international universities in local delivery, access to staff from other economies and opportunities for people to study abroad add to the capacity to meet these goals.

⁴¹ Startup Genome. (2022). The Global Start-Up Eco-system Report GSER 2022. Startup Genome, San Francisco.

⁴² [Turning-research-into-economic-competitiveness-for-SA-Final-Report-Master.pdf \(sapc.sa.gov.au\)](#)

⁴³ Presentation by Arief Anshory Yusuf on higher education to a seminar at the Economic Research Institute for ASEAN and East Asia on 22 September 2023.

⁴⁴ There is a significant positive relationship between economic growth and the share of employment in high skilled services, though this link is mediated by institutions and geography as well as access to technology. See Baccini, L., Fiorini, M., Hoekman, B. and Sanfilippo, M., 2023. Services, jobs, and economic development in Africa. *The World Bank Research Observer*, 38(1), pp.147-178.

Table 1: Placement of Australian graduates by sector

Education levels by sector - share of total employees								
Sector	Postgraduate Degree Level	Graduate Diploma and Graduate Certificate Level	Bachelor Degree Level	Advanced Diploma and Diploma Level	Certificate III & IV Level	Secondary Education - Years 10 and above	Certificate I & II Level	Secondary Education - Years 9 and below
Agriculture, Forestry and Fishing	0.6	0.8	1.2	2.0	2.6	3.7	4.0	7.4
Mining	1.2	1.0	1.2	1.3	3.3	1.6	1.1	1.4
Manufacturing	3.5	2.2	4.1	5.3	8.6	7.6	9.5	9.7
Electricity, Gas, Water and Waste Services	1.1	0.8	1.0	1.2	1.7	1.0	1.2	1.1
Construction	2.5	1.8	3.8	6.3	20.2	9.3	8.1	10.4
Wholesale Trade	2.1	1.2	2.2	2.6	2.8	3.5	2.5	2.8
Retail Trade	4.2	2.6	5.6	7.2	7.1	16.4	11.5	13.5
Accommodation and Food Services	2.3	1.2	3.2	5.6	4.6	10.8	10.2	17.7
Transport, Postal and Warehousing	2.7	1.7	2.7	4.7	4.9	6.5	6.4	7.7
Information Media and Telecommunications	1.9	1.5	2.2	1.5	0.8	1.1	0.5	0.4
Financial and Insurance Services	6.1	4.9	6.0	4.7	1.6	2.7	0.8	0.4
Rental, Hiring and Real Estate Services	1.2	1.0	1.5	2.2	1.6	1.5	1.0	0.8
Professional, Scientific and Technical Services	16.0	11.5	15.1	7.6	3.2	3.9	2.3	1.1
Administrative and Support Services	1.9	1.7	2.5	3.5	3.1	4.1	7.1	5.1
Public Administration and Safety	8.5	11.2	7.6	9.4	5.7	4.9	5.6	2.4
Education and Training	18.9	25.5	13.8	7.9	4.7	3.9	4.6	2.1
Health Care and Social Assistance	19.6	24.6	20.0	18.9	11.8	8.1	13.6	5.6
Arts and Recreation Services	1.2	1.3	1.6	1.5	1.1	1.6	1.4	1.6
Other Services	1.8	1.8	1.9	3.7	7.0	3.1	4.3	3.1

Source: Calculations provided to the authors by Adjunct Professor Tom Karmel (University of Adelaide) using census data from the Australian Bureau of Statistics.

Technological change is also driving new issues with respect to human capital. There is no question about the productivity gains potentially on offer. As described in the 2022 Policy Brief, artificial intelligence (AI), is doing to architects what excavators and cranes did to construction

workers – enhancing their abilities by orders of magnitude to do things that were impossible without the technology. The current evidence suggests that demand for AI-related skills will soon grow rapidly but may remain a small share of total skills demand compared with soft skills including decision-making, problem-solving, critical thinking and adaptability. The best skills policy for the future of work is therefore to encourage critical thinking and problem-solving in the education system from primary to tertiary education as well as life-long learning. Just as the use of a computer does not require coding skills, AI use may not require AI-specific skills.

The 2022 Policy Brief also pointed out that the evolution of skills demand may lead to a regulatory lag. The introduction of AI support into traditional areas of professional services work, which may serve to hasten the construction of international professional services advisory teams, may also clash with local qualifications requirements and systems of mutual recognition.

3. APEC Cooperation

Here we revisit the overlap of services policy reform and structural reform, review tools available to promote that linkage in the APEC process and assess the progress to date. We note some challenges to ongoing reform and the scope for cooperation to support efforts for policy change in individual economies. We conclude with suggestions of activity areas that are candidates for attention in further cooperative work on services and structural reform.

3.1 Services and Structural Reform in APEC

Our discussion of the nature of services and the drivers of competitiveness directs attention to a number of pointers for reform success. Governments have a role in activating these individual competitiveness drivers in separate policy streams but more importantly in a joint more whole-of-government manner with an eye always on the international dimension (Figure 11). Openness is at the centre of these drivers, but they all interact with each other in a manner that forms a set of reinforcing dynamics. Regulation is shown separately here, but we have stressed how cross-economy divergences in regulation can add overwhelmingly to trade costs, notably for digital services, and especially for smaller enterprises and others at the fringes of economic inclusion such as indigenous, women and youth-led enterprises and remote communities. Infrastructure covers both the relevant platforms and systems for services transactions, including digital services, but also the physical infrastructure that supports the interaction of people in the services sector., especially in the urban areas.

There is a tight overlap of this services policy agenda and the essential components of structural reform. The latest iteration of the relevant APEC agenda, endorsed by Ministers in 2021, is set out in the 4 pillars of EAASR (Figure 12).

Figure 11: Drivers of Competitiveness

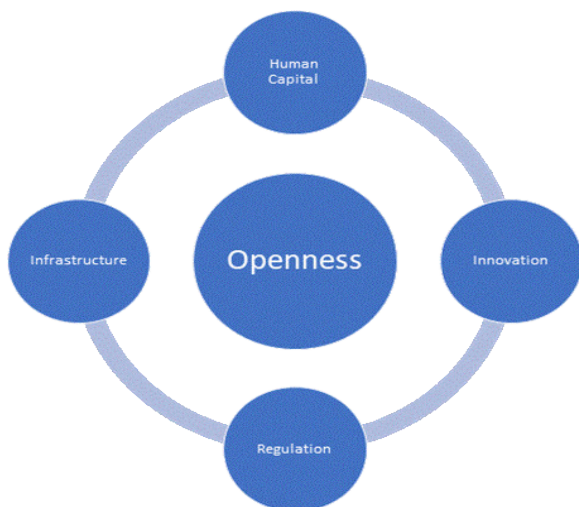
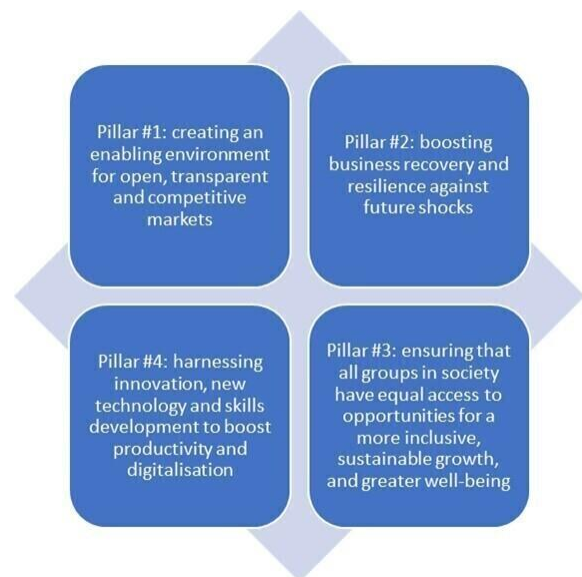


Figure 12: EAASR Pillars



EAASR aims to contribute to achieving the APEC Putrajaya Vision 2040 and the Aotearoa Plan of Action. Its role is to identify structural reforms that not only contribute to growth but are also inclusive, sustainable and innovation friendly. The APEC Putrajaya Vision 2040 explicitly mentions as an objective the pursuit of 'structural reforms and sound economic policies to promote innovation as well as improve productivity and dynamism'. The Aotearoa Plan of Action elaborates that structural reform initiatives will be advanced under EAASR's four pillars and through collaboration across relevant APEC fora.

The EAASR pillars interact with each other so reform activities can contribute to more than one pillar. Activities are both APEC-wide (set out in the EAASR Implementation Plan) and led by members. Members report their own initiatives in Individual Action Plans. EAASR documents encourage economies to adopt the following three approaches:

- Delivering 6 core structural reforms (competition policy and law; stronger economic and legal infrastructure; ease of doing business; regulatory reform; public sector governance; corporate law and governance) to improve market functioning and transparency,
- Implementing specific market reforms to improve innovation and competitiveness of business and achieve pro-inclusion benefits,
- Adopting a holistic approach to structural reform which combines core reforms, specific market reforms and broader policies to boost productivity and economic resilience.

With respect to all 4 pillars and all 6 core reform areas, attention to the drivers of services competitiveness is of fundamental importance. The 2022 Policy Brief showed how the high degree of government intervention in the services sectors (a focus of last year's paper) along with the extent to which impediments to trade in services are found behind the border in domestic policy settings and regulatory practices calls for a close engagement with the overall process of structural reform. International trade and domestic regulation are two sides of the same coin. Services liberalisation and structural reform must go hand in hand.

EAASR runs to 2025. In the review of work undertaken in 2023, the PSU identified reform measures that referred to services, either as a whole sector, or to sub-sectors or where services are mentioned as a beneficiary. The PSU also identified other items with implications for services competitiveness (facilitating business conduct, opening market access, enhancing infrastructure, human capital, MSME development and innovation). The number of key initiatives taken by economies that explicitly mention the services sector in their title or their write-up and whose activities aim to benefit the sector are in the minority compared with those that do not explicitly mention the services sector as a focus or beneficiary.

The PSU made a number of suggestions:

- economies could more clearly indicate if a particular key initiative would benefit the services sector and how so,
- economies might also need to note that the services sector, like other sectors, has its special characteristics that would need to be considered when undertaking activities to facilitate business formation and operations, for instance,
- a potentially useful approach is for economies to take a value chain perspective to services, where economies endeavour to understand how bottlenecks in parts of the value chain could have detrimental effects on the overall provision of and access to certain services, and based on the findings, craft appropriate reform responses,
- economies might consider the inter-linkages that exist between certain laws and regulations, which may affect decisions to invest in an economy. For example, while there may be no foreign equity restrictions operating in certain services sectors, there may be restrictions on recognition of professional qualifications obtained overseas and/or limitations on stay by foreign staff,
- there is value in a holistic approach to services regulations, including better coordination among agencies, which could be better reflected and showcased in the IAPs.

The PSU also stressed the role of the private sector, as the main beneficiaries, providers, and users of services. The PSU called for deeper and more regular engagement with business stakeholders to identify contemporary services-related issues and how to overcome them. The PSU suggested this could help in developing IAPs with more tangible impacts for services.

The PSU also noted that the IAPs (and associated key initiatives) formulated by member economies make limited reference to the APEC Services Competitiveness Roadmap (ASCR), perhaps indicating a need to increase awareness of the alignment between EAASR and ASCR.

That this gap in reporting of services in IAPs remains, means expectations created when the ASCR was endorsed have not been met. When undertaking the 2018 MTR of the predecessor to EAASR (the Renewed APEC Agenda for Structural Reform (RAASR)) the PSU noted that while RAASR is primarily an EC initiative, the importance of structural reform is such that RAASR was mentioned in other work undertaken by APEC including the APEC Services Competitiveness Roadmap (ASCR) which lists implementation of a services focus in RAASR as one of its APEC-wide actions. The ASCR encourages economies to implement unilateral

reforms aimed at further improving the services sector as part of their APEC structural reform action plans.

“Meeting the targets and enabling factors set out in this Roadmap will require significant unilateral action on the part of individual economies to implement structural reform in individual services sectors, as well as across the economy as a whole. Given the importance of unilateral reform, we encourage economies to implement unilateral reforms aimed at further improving the services sector, as part of their structural reform action plans under the RAASR.”

The current task is to make these linkages between ASCR and EAASR more explicit. The 2022 Policy Brief noted that the ASCR takes a comprehensive approach to building the region’s competitiveness in services including by:

- promoting good regulatory practices,
- facilitating international regulatory cooperation and sound competition policy frameworks and institutions,
- ensuring more open services markets,
- ensuring an adequate supply of skills in a rapidly changing economy,
- facilitating effective and inclusive financial markets.

The ASCR set out 19 concerted actions, allocated to 15 different APEC groups for lead responsibility, coordinated by the GOS. Three specific targets were adopted:

1. opening up: a reduction in restrictions on trade and investment in services,
2. trade performance: a higher APEC share of world services exports by 2025, and
3. output: a higher APEC services share of total value-added than the global average (alongside higher growth of trade in services than the historical average) by 2025.

The 2022 Policy Brief noted that the APEC community’s assessment was at best mixed. The MTR of the ASCR found:

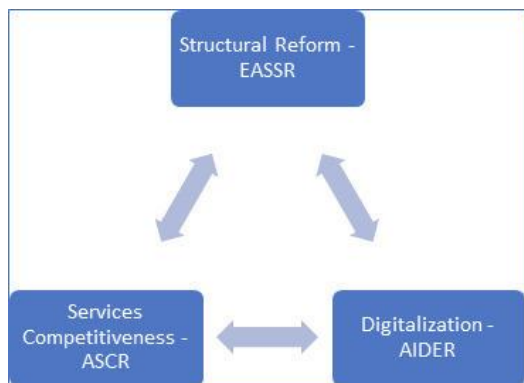
- considerable measurable progress in trade in services opening up, but substantial variance in the progress of reform across sectors and modes of supply,
- no measurable overall increase in the export trade performance/international competitiveness of services from the APEC region,
- positive results on the increased share of services in the GDP of APEC members, but a large and widening differential between the role of the services in the domestic economy and the extent to which the sector is achieving its export potential.

The 2022 Policy Brief observed that efforts to meet the ASCR goals need to be accelerated. The specific quantitative targets are of interest and useful to monitor but there is value in further consideration of the targets, their measurement, and their interpretation.

On the one hand, competitor exporters of services such as India may have done relatively better than the APEC region as a whole in increasing their global share of services exports. However, when assessing comparative outcomes, APEC's overall relative performance needs to take account of the specificities of progress in other regions. Meanwhile, the data are positive about the increased relative importance of services in APEC economies' production output. Taking the two findings together raises a question of measurement, namely whether the indicators of export performance might not be picking up differences with competitor economies regarding the relevant modes of services supply. For example, a competitive services sector might deliver its output to the rest of the world through modes of supply other than cross-border transactions that are captured by the Balance-of-Payments and where the value-adding activity and associated exports take place (and are measured) offshore.

Notwithstanding such nuances, much more work now needs to be done towards the APSC goals. The 2022 Policy Brief noted that under the ASCR, the GOS delivered two important new tools that are highly relevant to the EC structural reform agenda and the application of which could contribute to reducing trade costs. One is the Pilot APEC Index for measuring the regulatory environment of the services sectors, and the other is the Non-Binding Principles on Domestic Regulation of the Services Sector. APEC therefore has tools to support reform that enables competitiveness.

In addition, the 2017 APEC Internet and Digital Economy Roadmap (AIDER) provides 'guidance on key areas and actions to facilitate technological and policy exchanges among member economies and to promote innovative, inclusive and sustainable growth, as well as to bridge the digital divide in the APEC region'. In addition to fundamental work on digital trust and security, digital inclusivity and digital economy measurement, the key focus areas under AIDER include a number of matters that align directly with our framework of enablers of services competitiveness. These include work on digital infrastructure, interoperability, universal broadband access, digital regulatory coherence and cooperation, innovation and digital adoption, data flows and digital trade. A virtuous circle of joint APEC activities can be created. Ministers recognised this and requested that the model be pursued. We summarise this package in Figure 13.

Figure 13: APEC Tools

3.2 Challenges of reform and the value of cooperation

Changing policy through the structural reform agenda is difficult and needs to be ongoing and long-term. Challenges emerge because:

- Disruption arises out of technological change and innovation and policymakers are working in new areas where there is considerable uncertainty about the impacts of policy: one implication is that the case for consideration of structural reform is persistent and reform programs need to be continuous,
- Often many different agencies are involved in the design of policy, which adds to the time taken and the costs of coordination,
- There is interaction between different policy measures, relevant to the same activity, and outcomes may be unintended and difficult to predict,
- The consequences of error are often relatively high (e.g. implications for human health) and the tendency may be to begin with outright prohibitions, rather than persist in the search for a more open arrangement,
- There may be private interests seeking to push policy change in their own direction, some of which may emerge from opening a restrictive regime and then complicate subsequent reform.

Earlier work for the PSU⁴⁵ based on case studies of policy change identified several actions that could facilitate reform. These include:

- Be aware of any gaps in regulatory practices in relevant peers.
- Know the costs of the current regime.

⁴⁵ Findlay, C. ed., 2013. *Priorities And Pathways in Services Reform: Part II–Political Economy Studies* (Vol. 25). World Scientific.

The first demands benchmarking of local policy against relevant peers. The second was noted above with respect to the sources of complexity for structural reform. Various modelling methods can be used to identify the costs of the current regime, given the estimated gap between the ‘frontier’ in each field. The APEC Index⁴⁶ is a useful tool to apply in work on these first three areas. It can be used to compare current policy and as an input to modelling work.

Other principles included the following:

- Coordinate where necessary,
- Promote engagement with a range of stakeholders.

The importance of coordination was noted above with respect to the complexities of managing structural reform. The WTO⁴⁷ has also observed that there are

“(common) weaknesses in domestic institutional architectures for inter-agency coordination and external stakeholder consultations given the large number of public and private sector actors at play in services trade policy.”

Sometimes reform is driven from inside the regulated sector, for example, because of technological change which introduces new competitors that are not regulated in the same manner as the incumbents. Engagement with those incumbents can identify opportunities for reform. At the same time, it is useful to interact with consumers (though they may be many and diverse), and in principle with potential entrants to regulated markets – members of the research community may be able to speak for those interests. New institutions may be useful as a channel for these dialogues.⁴⁸

In addition, there are principles to consider in the approach to the work and its focus, namely;

- Use independent analysis of options,
- Competition is always more important than ownership,
- Take a forward-looking view and provide a leadership commitment.

The independent analysis of options is often more powerful in public debate than sourcing that work from either government or parties with an interest in the outcome. The earlier research of case studies of reform for the PSU found that it was always better to begin with reforms that introduce competition in markets rather than moving straight to changes of ownership and privatisation. This was because the latter would sometimes simply reallocate profits rather than produce a better outcome for consumers. The New Zealand experience of reform in the

⁴⁶ [APEC Services Trade Restrictiveness Index - APEC Services Trade Restrictiveness Index \(apecservicesindex.org\)](https://apecservicesindex.org)

⁴⁷ WTO, Trade in services for development: Fostering sustainable growth and economic diversification, WTO Geneva 2023.

⁴⁸ Examples are the productivity commissions created in Australia at economy-wide and regional level.

electricity market provides an example of attention to these issues of competition and ownership and it began with a review process.

Box 7: Electricity reform in New Zealand

The electricity reform in New Zealand began in the mid-1980s with a major inter-departmental review of the Government's role in the electricity industry. The review was prompted by extensive political involvement in generation investment decisions, project management that did not meet current standards, inefficient wholesale pricing, and some supply shortages. Local distribution and supply were the responsibility of sixty-one electricity supply authorities. These were electorally oriented, statutory monopolies. Inefficiency, lack of customer choice and cross-subsidies resulted. This set of circumstances coincided with increasing concern about New Zealand's overall economic performance. In turn, this concern led to the introduction of wide-ranging micro-economic reforms.

There were three main phases of reform – the second half of the 1980s, then in 1999 and in 2010.

The first phase created a new regulator and reform trading businesses. In April 1987, a state-owned enterprise was set up to own and operate the generation and transmission assets of the government. Local distribution companies were also corporatised. Policy and regulatory activities were retained in the Ministry of Energy.

The 1999 reforms aimed to introduce competition into electricity generation. The generation was broken down into four separate companies (one also privatised). A new entity was created to manage the operation of the wholesale electricity market. The management of transmission and distribution (components with monopoly power) had earlier also been separated from that of generation.

The 2010 reforms were prompted by a concern about lack of competition in at the retail level. Common ownership of distribution and retail businesses was not allowed. Retailers then also merged with generators. Barriers to the entry of new retailers were lowered. Later, retailers associated with distribution companies were once again permitted, in response to concerns about other market power issues associated with the integration of generation and retailing.

The themes of the reforms were the 'two separations' – a) of regulation from business operations and b) of monopoly components and competitive elements. Also evident in this experience is the regular review and then evolution of the regulatory arrangements, as lessons are learned from previous stages of reform.

A case study included in the 2016 APEC Economic Policy Report concludes that the reforms were successful in creating a competitive and efficient electricity market in New Zealand. The authors referred to rates of change in prices in competitive components of electricity supply (less impact of reform is evident in the monopoly components), the structure of the retail market, benefits to business consumers and investors, and examples of innovation. The authors made the inference that services reforms deliver 'benefits for business and other consumers when governments remain committed to and consistently apply a clear set of principles that promote market-based solutions and competition'.

Source: Vishal Beri and Cameron O'Reilly, (2016) 'New Zealand: Electricity Retail Services Market Reform', Annex A to the 2016 APEC Economic Policy Report, 'Structural Reform and Services', Economic Committee, APEC. A detailed chronology of reform is available at [Chronology of New Zealand Electricity Reform \(mbie.govt.nz\)](https://www.mbie.govt.nz/chronology-of-new-zealand-electricity-reform) The New Zealand experience has also been reviewed by Shen, D. and Q. Yang (2012), 'Electricity Market Regulatory Reform and Competition – Case Study of the New Zealand Electricity Market' in Wu, Y., X. Shi, and F. Kimura (eds.), Energy Market Integration in East Asia: Theories, Electricity Sector and Subsidies, ERIA Research Project Report 2011-17, Jakarta: ERIA, pp.103-139.

Taking a forward-looking view which involves identifying and explaining the desirable end point of reform helps manage the risk of reaching an outcome that is undesirable and then becoming stuck at that point because of the emergence of new vested interests. A commitment to reform by leaders is also very important alongside their ability to explain structural reforms and their benefits.

There are some other considerations in designing a reform program which the earlier work identified, namely;

- Consider how to meet universal service obligations directly (e.g. without engaging in cross-subsidies from rents earned in protected markets),
- Use experiments to test out new ways of regulation.

Putting universal services commitments in the hands of incumbents sets up barriers to reform. Preferable is to make those commitments explicit and manage them for example through an auction process and direct payments to support the delivery of services, rather than through a cross subsidy. Also separating them out makes their costs transparent. Experiments (or 'sandboxes') are useful firstly to demonstrate the benefits of reform and secondly to help trial options when there's uncertainty about what might be best practice.

More recently the 2017 PSU Report found that other factors contributed to success and made suggestions about priority areas for reform. The 2022 Policy Brief summarised the discussion noting that from an inclusive growth perspective, reforms should focus on improving total factor productivity and universal access to infrastructural services, notably transportation, telecommunications, health and education, leveraging market mechanisms and competition by identifying and removing policy-driven barriers to exit and entry and business innovation.

It also emphasised that structural reform will be accompanied by adjustment costs and unanticipated spill-over benefits for ancillary activities, e.g., widening access to services, and called for identifying and measuring both the direct and indirect effects of reforms, as well as policies to address adjustment costs, e.g., complementary investments in skills development and training of workers, and more broadly active labour market policies.

As the effects of structural reforms in services will be determined in part by linkages between sectors, the 2017 PSU Report suggested the use of a value-chain informed 'whole of government' approach to identify policies affecting a bundle of activities and technologies that jointly determine the ability of firms to supply and consumers to consume (new) services, e.g., linkages and interdependencies between internet platforms, e-commerce retailers, financial intermediaries, and logistics service providers. This is also an element of the Hoekman principles noted in the previous section,⁴⁹ as are other items proposed in the 2017 PSU Report such as better data, cooperation among regulators within an economy and between economies, as well as a degree of flexibility in regulation to manage risks involved in policy change.

⁴⁹ The 2022 Policy Brief presented a model of how this approach could be implemented based on proposals made by Findlay and Hoekman: Findlay, C. and Hoekman, B., 2021. Value chain approaches to reducing policy spillovers on international business. *Journal of International Business Policy*, 4, pp.390-409. This discussion is updated in Hoekman, B., Mavroidis, P.C. and Nelson, D.R., 2023. Non-economic Objectives, Globalisation and Multilateral Trade Cooperation. CEPR.

Recent experience in the Philippines is an example of wide-ranging structural reform relevant to the service sector (See Box 7).

Box 8: Reforms in the Philippines

In a presentation to the EC/GOS/DESG Dialogue on Structural Reform and Services, 22 February 2023, in Palm Springs, Rosemarie G Edillon, Undersecretary, National Economic and Development Authority of the Philippines spoke to the reform of the Public Service Act in 2022. Investment restrictions in key sectors in the Philippines are embedded in the Philippine Constitution, such as a requirement for domestic ownership of a public utility. Foreign investment in that case was limited to 40%. However, the Constitution did not define what public utility was. As a matter of practice, the Philippines had been following the enumeration that is found in the Commonwealth Act, which dates back to 1935. The Public Service Act now defines what public utilities are, and what public services are and liberalised rules on foreign equity, except those now defined as public utilities, now limited to petroleum products, pipeline transmission, public utility vehicles, the distribution of electricity, and the water pipe pipelines. The new Act also includes various safeguard provisions that can be used to respond to security concerns.

Later discussion in the Dialogue referred to this experience, noting how regulatory reform needs to focus on improving opportunities for commercial presence, and how boosting inward FDI helps boost local competitiveness, creates new business employment and training opportunities, and even can build a whole new digital services sector. Participants noted this case illustrated how the structural reform agenda is relevant to positive investment attraction outcomes. They also noted how the reforms helped attract foreign investment into the telecommunications sector, where connectivity levels had previously been relatively low.

This change in the Philippines is part of a package.

Other examples of major reforms in the Philippines included the enactment of the Philippine Competition Act in 2015, the first consolidated framework on competition in the Philippines, which also established the Philippine Competition Commission,

Another is the Ease of Doing Business and Efficient Government Service Delivery Act of 2018, which is about reducing the cost of doing business, including the establishment of the anti-red tape authority of the Philippines. This was tested during the time of the pandemic, when it reduced the permit procedures, for example, the procedures for setting up cell towers so that we can have better access to digital technology. The process went down from 39 permits to only two. In a matter of two years, the number of towers increased significantly.

Also related were the amendments to the Retail Trade Liberalisation Act in 2021 which reduced the paid-up capital and investment level requirements for foreign investors and reform to the Foreign Investment Act of 2022 which reduced the minimum size of foreign investors.

Source: Based on the presentation of Rosemarie G Edillon at the EC/GOS/DESG Dialogue on Structural Reform and Services, 22 February 2023, as well as a presentation to the meeting by Ramonette Serafica from the Philippine Institute of Development Studies.

3.2 Next steps

We have identified some of the challenges of policy reform and referred to various suggestions for action within economies that would support reform. In this final part of the Policy Brief, we turn to the question of how those economy-level actions can also be supported by regional

cooperation and by the application of APEC tools. We ask what series of activities among APEC members would contribute to success both in individual elements of the policy framework illustrated in Figure 9 and the interactions among them. Success will involve interactions over more than one annual cycle as Ministers have already foreseen.

Member economies drawing on this document will have suggestions for relevant activities considering their own policy interests. Our review of recent developments, an appreciation of the APEC process and the evidence base behind the policy framework adopted in this Policy Brief suggests a sample set of examples of projects that might be jointly pursued in APEC. These are included in Box 9. Other projects can be developed depending on member interests as elaborated in the course of ongoing dialogues as the program of work to 2025 is implemented.

Box 9. Joint Activities to Support Services Competitiveness

1. Setting priorities for structural reform

The structural reform agenda is wide-ranging and complex. Choices have to be made about areas of focus given the limits on resources.

Expected output: Deeper understanding in each economy of the priority areas for policy change.

2. Documenting reform in IAPs

The EAASR IAPs are important potential tools to support reform. They have not yet been used extensively to report services reform proposals or activities.

Expected output: More extensive use of IAPs to report services reform.

3. Initiating regulatory reform through regional regulatory cooperation on digital services

Regional divergences in digital regulations impose high trade costs, especially on smaller firms that can least afford them and fragments the regional digital market. Much higher levels of regulatory cooperation are required to ensure regulatory divergences do not become trade barriers in their own right. The business context is important in understanding these activities, including the adoption of an international value chain perspective.

Expected output: better understanding of how to organise this form of cooperation, and whether existing models would benefit from adaptation (e.g. the consideration of a value chain perspective), leading to policy change that reduces trade costs.

4. Addressing Data localisation

Data localisation measures are growing and becoming increasingly restrictive, adding to trade costs, as clearly identified by regional businesses. Various motives for the use of these measures are evident but the measures adopted can be counterproductive.

Expected output: movement towards less restrictive measures that manage the risks involved in data transfer and processing more efficiently.

5. Developing tools for interagency cooperation

In individual economies many agencies often must be consulted before a policy initiative on services can be endorsed, designed, and implemented. Sharing experiences of managing that process of interagency cooperation is particularly important in the absence of which services policy development and the capacity to engage in trade-related discussion, is retarded.

Expected output: specification of options to facilitate inter-agency cooperation and lessons from their application which are relevant to other APEC members and also to the APEC organisation itself.

6. Sharing experiences of reform

Structural reform can be challenging and continuous. The body of experience in its application continues to grow and many lessons can be captured and consolidated with those from earlier studies.

Expected output: a better portfolio of actions to support the goal of 'getting reform done'.

Source: *Authors*.

The task then for members, if this approach is supported, is to decide on priorities among the examples set out in Box 9 and others proposed. Activity selection criteria would include a) relevance to members and b) contribution to collective success.

A related question is how these activities would be organised, and what would participation (which is voluntary) in them involve. Elements to consider include the role of partnerships, the organisation of policy analysis, the design of capacity building, and the scope to leverage other programs and tools for sharing experiences.