

Australian self-funded EC workshop

The Digital Economy: Measurement, Regulation and Inclusion

Wednesday 6 March 2019
Intercontinental Hotel, Santiago, Chile

Key Outcomes and Policy Recommendations

Australia hosted a workshop on the digital economy focusing on measurement, regulation and inclusion in Santiago on 6th March 2019. The workshop was organised as a contribution to the Economic Committee's (EC) work on structural reform relating to the digital economy. It brought together 56 participants and 12 speakers and resulted in robust discussion and experience sharing on the workshop's three themes. The workshop was facilitated by Dr. Peter Lovelock.

The workshop responds to a gap in the EC's (and APEC's) coverage of digital issues, as identified through the Informal Roadmap Group's stocktake of EC initiatives. The workshop aimed to support the EC in its implementation of the APEC Internet and Digital Economy Roadmap (AIDER) by facilitating learning and knowledge sharing among APEC economies.

The workshop was successful in identifying key challenges and sharing different approaches used in some APEC economies.

- On **measurement**, the key issue identified is the lack of common definitions across APEC economies. Methodological issues were also raised about how data is collected and value measured. Some economies presented examples of creative uses of existing data. However, the lack of common definitions meant the figures produced are incompatible across APEC economies. A clear need was identified for APEC to work on developing common measurement standards and to conduct further technical workshops/training to build capacity within statistical agencies in the APEC region.
- On **regulation**, the key theme that emerged is the need for relevant data on the usage of new technologies to inform the design of optimal regulatory policies. Emerging regulatory approaches such as 'sandboxes' or 'adaptive' systems create a safe environment for data to emerge that can inform regulators. These approaches have been used for fintech and automated vehicles in gated retirement communities. There is an opportunity for APEC economies to share experience and best practice on the use of such regulatory approaches.
- On **inclusion**, several challenges were identified, including: lack of data; obstacles faced by SMEs; and under-inclusion of youth, women and minority groups in decision making. There was a need identified for a comprehensive cross-governmental approach to collecting data on digital services, productivity and inclusion.

The workshop identified **nine recommendations** for consideration by the EC and other APEC sub-fora with digital economy interests:

1. Work to develop regional standards for measuring the digital economy and sharing best practice and expertise in the APEC region.
2. Conduct technical workshops/training targeted at personnel from statistical agencies of APEC economies to share methodologies and develop capacity in measuring the digital economy.

3. Establish a forum to engage the private sector, civil society and statistical agencies in finding ways to share data to allow more granular measurements of the digital economy.
4. Conduct further EC workshops to share experience and best practice on the use of 'sandboxes' and adaptive regulatory approaches to trial new products, collect data and design optimal regulations.
5. Share experiences on developing a cross-governmental approach to collecting data on digital services, productivity and inclusion.
6. Work towards identifying digital skill requirements in each APEC economy.
7. Address challenges faced by SMEs in the digital economy such as access to internet, banking, logistics, education etc.
8. Include perspectives of youth, women and minority groups in decision-making on the digital economy.
9. Update online government services to ensure information is easily accessible and understood.

Introduction: Opening remarks and 'scene setter'

The workshop was opened by the **Australian Ambassador to Chile, Robert Fergusson**. Ambassador Fergusson thanked Chile for prioritising the digital economy and recognised its importance to the dynamic Asia-Pacific region. He acknowledged that development of the digital economy is complicated by differences economies have in terms of the measurements used and the regulatory approaches adopted. He called for a combination of structural reform and supporting policies to help bridge the digital divide and increase opportunities for all.

Dr Lovelock then delivered a 'scene setter' presentation laying out some of the challenges associated with the growth and potential of the digital economy, including the lack of a consistent measurements framework, to help frame the subsequent discussions. Dr Lovelock noted that the digital disruption caused by advances in general purpose technologies have fundamentally changed the way we participate in the economy. Even basic categorisations such as whether digital products are classified as goods or services (or both, or neither) remain unclear. This has implications not only for the emerging need to be able to measure digital production and consumption, but for the reliability and functionality of domestic accounts. A tri-sectoral approach is needed to bring together government, private sector and international organisations to create standard definitions leading to consistent and comparable data across sectors and across economies. Dr Lovelock also highlighted challenges for regulators of digital platforms, as these often transverse industry categories and test existing definitions. The digital economy, it was noted, can also have a large social impact through e-government health and education services, e-wallets, e-identity etc. However, enabling these benefits will require coordination, and the development of smart policy frameworks that reduce red tape and enable participation.

Session 1: Measurement of the Digital Economy

In this session, four expert speakers examined methodological approaches to measuring the digital economy, and provided examples of existing approaches used by the **OECD, Australia and Canada**, as well as highlighting the many challenges economies face. A key theme to emerge was the lack of common definitions and consistent measures of the digital economy, both within and across economies. Specific challenges were identified with current measures, such as gaps in how data is collected from traditional sources such as tax information, government censuses and private sector surveys; ability to capture how value is measured and transferred; and use of top-down data from national agencies, which lack detail. A clear need was identified for greater collaboration with the private sector and civil society to obtain more granular data that can complement national sources.

Canada raised the concern that, in addition to the aforementioned challenges, features of the digital economy exacerbate the existing problem of Base Erosion and Profit Shifting, which can significantly distort tax-based data as well as common economic measures that would be used to analyse the digital economy. Other challenges include incorporating adjustments for quality increases and measurement of free services. Existing concepts such as consumer surplus and value-added may also need to be updated for a digital context. There were calls for APEC to develop guidelines and share best practice on developing such measures and concepts.

There were also examples presented of creative uses of existing data sources to measure and track the digital economy. For example, the Australian Bureau of Statistics uses data from supply use tables to track digital-related activities in hardware/software, media and wholesale and retail margins in e-commerce. The limitations of this approach is that it is not a full satellite account and does not include all digital activities (for example, Uber is not included). The benefits are that it does provide a consistent framework and is relatively easy to implement.

Individual economy speakers then presented examples of digital economy measurement in their home economies. **Chinese Taipei** and the **USA** each presented their *approaches to measuring the digital economy*, allowing participants to observe how different definitions and measurement schemes can lead to divergent and incomparable figures. This re-iterated the need for a common set of international standards. **Malaysia** and **Singapore** shared their experience of *using data to promote e-commerce and digitisation* respectively. **China** presented a *digital economy development index* that allows the tracking of digital development across local provinces.

Recommendations:

1. Work on developing regional standards for measuring the digital economy and sharing best practice and expertise in the APEC region.
2. Conduct technical workshops/training targeted at personnel from statistical agencies of APEC economies to share methodologies and develop capacity in measuring the digital economy.
3. Establish a forum to engage the private sector, civil society and statistical agencies in finding ways to share data to allow more granular measurements of the digital economy.

Session 2: Regulation in the Digital Economy

Session Two moved the focus from the need for digital economy-relevant indicators and measurement tools in and of themselves, to the requirements for effective regulation of the digital economy and the emerging regulatory and policy challenges. Experts from the **OECD** and **Inter-American Development Bank** (IADB) provided an overview of the regulatory challenges facing the digital economy. It became clear from the presentations that the digital economy poses a host of new challenges for regulators and will require new approaches to regulation – both domestically and regionally – if the challenges are to be addressed successfully.

A key theme that emerged was the need for relevant data on the usage of new technologies that can inform regulators in designing optimal policies. Traditional regulatory approaches that are too prescriptive may be able to reduce elements of existing uncertainty, but not only are such approaches not agile enough to keep pace with (and subsequently enable) innovation, the ‘blunt force’ approach often causes unintended consequences that then further increase uncertainty. Certain approaches to introducing ‘digital tax’ regimes were cited as an example of this problem. Outcome-based regulation or self-regulation may be suitably flexible to respond to emerging challenges, but implementation remains complex. Emerging regulatory approaches such as ‘sandboxes’ or ‘adaptive’ systems, create a safe space to trial new offerings – particularly digital offerings (products or services) – allowing data to emerge that can be used to design an optimal regulatory response. Examples include fintech sandboxes and the use of automated vehicles in gated retirement communities. However, while

sandboxes are one possible solution, they have limitations. It may be necessary to adopt an iterative approach to digital economy regulation that involves deploying a variety of tools (such as sandboxes) and carefully evaluating their impact.

There remains an important role for international regulatory co-operation, as emerging technology can span many jurisdictions, requiring a co-ordinated approach to be both enabling and successful. This could take the form of harmonisation through binding agreements or softer forms of regulatory cooperation and sharing of best practice. For example, the Pacific Alliance has moved forward on the issue with a focus on trade facilitation and interoperability of single windows, as well as trade agreements that cover digital trade and e-commerce. Other areas that require a co-ordinated approach include the regulation of online platforms that give rise to natural monopoly concerns, and ensuring cross-border movement of data respects privacy and data security standards.

Representatives from four economies – **USA, Viet Nam, Chile and Mexico** – presented examples of the regulatory frameworks used for various aspects of the digital economy. **USA** shared its regulatory approach to the *use of automated vehicles, unmanned aircraft (drones), 5G spectrum and artificial intelligence*. Its over-arching approach is to enable innovation as much as possible, while also maintaining safety, security and privacy protections. **Viet Nam** is in the process of developing a *strategy for digital transformation* with key focus areas on e-government and e-commerce. Reforms are underway to facilitate market entry, *ensuring competition in online platforms and harmonisation of tax policies*. **Chile** provided examples of recent FTAs that address digital economy issues through chapters on telecommunications and e-commerce, with the guiding principle being to *ensure competition and non-discrimination of digital products*. **Mexico** provided an overview of *fintech development* and highlighted problems of judicial uncertainty and mechanisms to police illegal activities arising from the lack of regulation. In 2018, a Fintech Institutions Law was passed to address these concerns.

Recommendation

4. Conduct further EC workshops to share experience and best practice on the use of ‘sandboxes’ and adaptive regulatory approaches to trial new products, collect data and design optimal regulations.

Box 1.1 Table based activity

Mr. Eduardo Pedrosa, Secretary General of **PECC**, led a table-based activity that highlighted the challenges associated with measuring aspects of the digital economy and demonstrated its importance for regulation.

Participants were asked to nominate a dollar amount per month that they were willing to accept as compensation for going without key digital services such as search engines, social media, digital maps etc. The purpose of this activity was to determine how much these services are valued even if they are not being directly paid for.

The results revealed that so-called ‘free services’ may in fact be ‘worth’ a significant amount – *with the average workshop participant requiring payment of more than \$30,000 per month to forgo use of the combination of services* – and perhaps more importantly, that through the use of innovative new approaches and frameworks, value can indeed be attributed to transactions and processes that are often seen as being ‘unmeasurable’ or ‘without value’.

There is therefore a clear need for regulators to be aware of the value of these services when designing optimal policies.

Session 3: Inclusive Growth in the Digital Economy

This session had speakers offer a range of perspectives on the inclusiveness challenges brought on by the digital economy. The **APEC Secretariat** provided a big picture overview of the impact that digital technologies like automation have on the hollowing-out of middle-income jobs. A need was identified to update economic indicators to incorporate activities like digital services and better reflect productivity increases. Inclusiveness could also be better measured through a combination of traditional data sources and big data, if issues around *data sharing* can be addressed.

Participants then heard a private sector perspective from the Chief Operations Officer of **Kichink**, a leading e-commerce platform in Mexico. Working directly with SMEs, Kichink is able to bring real-world examples of the challenges SMEs face in terms of integrating technology, economies of scale, managing operations and growth. Well-functioning platforms can address these problems, thus empowering SMEs, women and start-ups. However, several existing challenges remain, such as access to internet, banking, logistics, legislation, education and market diversification.

The founder of **KODEA**, a civil society organisation working to encourage the uptake of digital technologies among Chilean youth and women shared practical examples of its activities. Kodea is working with the Ministry of Education in Chile to develop a computer science curriculum in schools, running programs to train women in coding, and working to raise awareness about the importance of digital skills through the press and social media.

Representatives from **Chile, Indonesia and New Zealand** shared examples of structural and supporting policies that their economies are employing to promote inclusive growth in the digital economy. **Chile** has identified structural barriers that create a large gap in the number of men and women in the tech industry workforce. These include the presence of gender stereotypes, lack of a talent pool and in-group favouritism. In response, Chile is running a *public-private-partnership*, '*Inspiratéc*', to promote the inclusion of women in the technology sector. The program provides awards, recognition and in some cases helps women-led start-ups obtain venture capital funding.

Indonesia shared examples of *programs* it runs to assist start-ups all the way from pre-incubation through to matching with investors. Skills development and infrastructure are other key focus areas for Indonesia. A Digital Talent Scholarship is run to provide training for two months to 1000 people on key digital themes. ICT infrastructure projects are also ongoing, such as a PPP on broadband development, frequency spectrum management and building a broadband satellite system.

New Zealand has developed a *Digital Nation Domain Plan*, which is a *cross-governmental approach to collecting and sharing statistical information that measures progress in the digital economy and digital inclusion*. Commissioned research has identified groups most at risk of exclusion in New Zealand, current initiatives are compared against those used in other economies, and recommendations delivered on improving the digital capabilities of New Zealanders. New Zealand is also developing a digital inclusion blueprint, as well as a digital economy and inclusion *Ministerial Advisory Group* consisting of youth, Maori and other community groups to provide government with advice and diverse perspectives on policies for the digital economy.

Workshop participants and speakers then had an open discussion, which brought up issues such as the inclusion of elderly people in the digital economy, adjustment of social norms in the tech sector, ensuring that automation did not hurt vulnerable groups, and the need for clear and easy online government services.

Recommendations:

5. Share experiences on developing a cross-governmental approach to collecting data on digital services, productivity and inclusion.
6. Work towards identifying digital skill requirements in each APEC economy.

7. Address challenges faced by SMEs in the digital economy such as access to internet, banking, logistics, education etc.
8. Include perspectives of youth, women and minority groups in decision-making on the digital economy.
9. Update online government services to ensure information is easily accessible and understood.

Conclusion: Wrap up and next steps

Economic Committee Chair Robert Logie delivered concluding remarks, in which he considered the implications of this workshop for the EC's work on structural reforms. On measurement, he noted that the EC must identify targets, and needs to determine more clearly whether obtaining better indicators is possible. On regulation, Mr. Logie re-enforced the need for iterative policy development and highlighted the role APEC could play in sharing best practice. On inclusion, he recognised that there was still a long way to go with respect to the inclusion of women, SMEs and remote communities. There is a crucial need to enable access to technology and digital skills, as well as addressing country specific challenges.

Mr. Logie called attention to the EC report prepared last year, *Structural Reforms for Inclusive Growth: Three Approaches* to ensure that structural reforms promote inclusive growth, and called on participants to apply these approaches in practice. Mr. Logie also proposed that the Informal Roadmap Group be given a three-year workplan to support Chile's efforts on the Digital Economy Steering Group. As this is a cross-cutting issue, he proposed that the EC work with CTI, TEL and DESG, as well as external partners including the OECD.

In closing, Mr. Logie concluded the workshop had identified a crying need to update regulatory policy for the digital age and find the right balance between enabling innovation and promoting inclusion, while avoiding doing harm.

Ms. Edwina Stevens, Acting Senior Official for Australia, formally closed the workshop by thanking participants for the rich and productive discussions, and felt the workshop had contributed substantively to progressing the EC's digital economy agenda.