

発表資料

パネルセッション 1

Dr. Mignonne Man-Jung Chan, Co-Founder and Chief Strategy Officer, Forum on Humans

Asia-Pacific Forum by JEF & ISIS

Dr. Mignonne Man-Jung Chan

Chief Strategy Officer

Humanities Forum

16 October 2019

Sustainable Growth: Key Components

- To ensure **healthy international competition** so to achieve win-win-win & mutual prosperity;
- To collaborate on **efficient & seamless supply chain connectivity** with volatile technological innovation;
- To institute **environmentally friendly eco-system management** in accordance with objective science-based research;
- To honor **diverse human civilizations and selected approaches** without imposing self-glorified “best practice”, but with inspired exemplaries;

Sustainable Development: Sources & Challenges in the Region

- To consolidate consensus on **good governance** at the corporate, national, and regional levels;
- To select **menu of options** for trade & investment liberalization, facilitation, and economic & technical cooperation;
- To prioritize **modes of production, consumption, and waste management** without deteriorating or endangering the eco-universe;
- To nurture mutual learning on **human elevation of body-mind-soul**, so as to achieve common human destiny;

Inclusive Growth: Key Components & Goal Setting

- To weather & prepare for the **upcoming technological changes & their potential benefits & setbacks**—impacts on future employment, social safety net & well-being; [**Preparedness Index for Future Technology**]
- To uphold **equal opportunities for all, and caretake the livelihood of the less advantaged** so as to maximize employment, minimize social unrest, and achieve peace and prosperity; [**Happiness Index**]
- To instill **practical early child-hood education, and vocational as well as professional education** on a need basis so as not to stifle special individual characters; [**Regional Standard for Education**]
- To collaborate on **cross-border human resource mobility** for personal advancement and regional harmony; [**Regional Training & Employment Clearinghouse**]

The End

Comments Welcome

solitude4music@gmail.com

Prof. Gary Hawke, Emeritus Professor, Victoria University of Wellington

Asia Pacific Forum

Kuala Lumpur 16 October 2019

- what are the components of sustainable and inclusive growth that countries in the region should focus on in the medium to long yet, and what are the challenges to achieving them.
- What are the sources of sustainable growth in the region? Can trade still be the vehicle for equal prosperity?
- How do we ensure that inclusive growth is achieved by all in the region?

I am glad that this Forum continues to focus on fundamental issues. It would always be a pleasure to rejoin longstanding friends in the Japan Economic Foundation and its networks, and to have an opportunity to see more friends in KL, but it is especially good to do so in a context such as this Forum.

We could have talked about trade wars, retreats from globalisation, the rise of populism, and so on, but all of those issues are incidental to the fundamental questions posed here.

As a member of NZPECC, and with colleagues from Malaysia PECC, I have been engaged in proposing what should succeed the Bogor Goals as the vision of APEC. You will remember that "Free Trade and Investment for the developed economies by 2010 and for the developing members by 2020" or

- Trade and investment liberalization
- Trade and investment facilitation
- Economic and technical co-operation

were adopted in APEC in the early 1990s and the Bogor Goals have served as aspirations since then. It is mostly the mention of specific dates which makes revision necessary.

We might also reflect that the mere existence of the two formulations I used shows that aspirational visions do not need to be complete and entirely agreed. Debates on the meaning of "free" and the question of whether ecotech was to assist all members to achieve liberalization and facilitation or supported a wider field of cooperation were sterile.

APEC will deliberate through 2020 and adoption of a revision of the Bogor a Goals is scheduled for the Leaders' Meeting here in KL towards the end of next year. However, the consultations led by NZPECC and Malaysia PECC among all the regional stakeholders, officials in a private capacity, business and researchers, reveal a strong wish to emphasise inclusivity and sustainability.

There will be reservations. The core of "Sustainability" is providing for the long-term future. It cannot be the preservation of everything as it is, still less how it was, since we want to sustain an experience of progress. It must however include conservation of what is highly valued in what we inherit. The real challenge is in accurately predicting what has yet to be discovered as alternative ways of achieving what we currently achieve by using non-renewable resources. The deepest challenge is maintaining political consensus that we are striking the right balance between relying on the currently unknown and denying possible improved living standards.

Agreement on subsidies on fossil fuels or on management of fishery resources may seem a long way from this abstraction, but the region can benefit from exchanging views and experiences on all aspects of valuing the future.

Inclusivity generates a different challenge. In the APEC context, the question is the extent to which member economies want to internationalize their social policies. There is no one right balance between relying on families to support the aged and choosing among the many available processes of social security. International migration ensures that there will always be tension between countries that make different choices but they can be managed. The international policy issue is to minimize the extent to which implementation of a national policy bears negatively on trading partners. The key to that is international dialogue and a commitment by governments to facilitate adjustment and change rather than to protect existing activities.

We hear less about the East Asian Miracle than we did. The world changes and our problems are no longer those of the 1970s and 1980s when we were preoccupied with "flying geese industrialisation". But we should remember that a key to that success was not a simplistic idea of Washington consensus, but a common understanding not that governments should not intervene, but that they should assist movement of people to more productive sectors and should not seek to protect what had been valuable activities in the past.

The greatest challenge to achieving inclusivity is a misplaced desire to protect what exists rather than encourage participation in what will be valuable in the future.

In practice, this question is usually related to technology-induced unemployment. My background is that of an economic historian and I cannot refrain from speculating on our societies had our predecessors decided that accommodating railways was too big a risk for all those whose employment rested on the demand for horses. Until we invent machines which have the ability to learn and to reproduce themselves (with improvements) and with a desire to indulge themselves to the exclusion of humans, I shall remain an optimist on technology.

The sources of sustainable growth in the region are the same as they have always been, the stocks of useful natural resources inherited from the past, the structures of all kinds built by human endeavor which continue to contribute to generating valued goods and

services, the human skills and knowledge which make this possible (including recognising some natural phenomenon as a resource), and above all, the ability to generate new knowledge. (Note that new knowledge may mean something is recognised as a natural resource for the first time.) Trade not only can still be the vehicle for prosperity; prosperity depends on the continuation of trade. It is a fairly simple mental exercise to contemplate our regional societies reduced to relying on subsistence in isolated pockets.

I silently altered the prescribed question then by leaving out "equal". We can see that most discussion of equality is simplistic by asking equality of what? Equal lifetime incomes - even if restricted to those whose life expectancy is not cut short - will vary as experience, accumulated knowledge, and energy follow different life patterns. (In addition, incomes will vary with social customs about childrearing.) Then there are questions about different degrees of commitment to producing what has social value as well as all the questions about how well-being relates to measured income. We can continue to refine our understanding of well-being, but I anticipate that we will continue what has been general experience in modern societies - we will seek equality of opportunity - social mobility - though this cannot be attained in the absence of equality since home backgrounds matter - but we will take social action to limit inequality only when it impinges greatly on opportunities.

Which implies that we will actually seek something less than that "inclusive growth is achieved by all in the region". We will aim for a region where we avoid putting barriers in the way of others and where all have a reasonable opportunity to participate.

Dr. Wisarn Pupphavesa, Senior Advisor Thailand Development Research Institute (TDRI)

Prospects and Issues for the Future Sustainable and Inclusive Growth in the Asia-Pacific Region

Wisarn Pupphavesa
Senior Advisor
Thailand Development Research Institute (TDRI)

Asia-Pacific Forum 2019
co-hosted by Institute of Strategic and International Studies (ISIS)
and Japan Economic Foundation (JEF)
on
The Future of the Asia-Pacific Economies Beyond 2020
15-17 October 2019
Westin Hotel Kuala Lumpur

TDRI
สถาบันวิจัยเศรษฐกิจป๋วยสมเกียรติ

TDRI 1. Components of Inclusive Growth*

Equitable (open and equal opportunities)

- Upward mobility for all
- Reduction of inequality
- Equal access to public goods and ecosystem services

Participatory

- Access to and participate in markets
- Market transparency and information symmetry
- Widespread technology infrastructure for the betterment of all

Growing (natural, human, physical capital conservation and accumulation)

- Increasing good job and work opportunity
- Improving material well-being
- Economic transformation for the betterment of all

2

1. Components of Inclusive Growth* (Cont.)

Sustainable

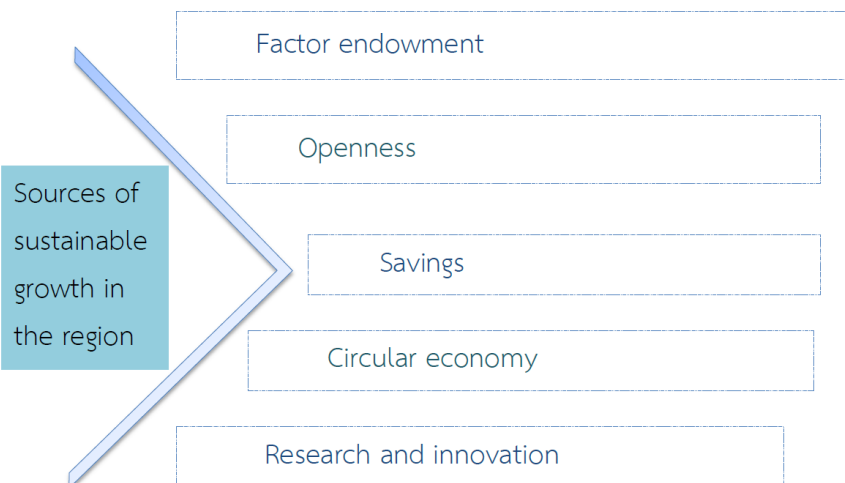
- Social and economic well-being is increasingly sustained over time
- Greater investments in environmental health and reduced natural resource usage
- Decision-making processes incorporate long-term costs

Stable (socio-economic-political)

- Public and private confidence in the future and ability to predict outcome of economic decisions
- Members of society are able to invest in their future
- Economic resilience to shocks and stresses

*Chris Benner and Manuel Pastor et al., Inclusive Economy Indicators, supported by the Rockefeller Foundation, December 2016.

2. Sources of sustainable growth in the region



3. How to ensure achievement of inclusive growth by all in the region

- Sufficiency Economy (Moderation, Rationality, Immunity, Intelligence, Morality)
- Deepening AEC
- Broadening and deepening regional trade and development cooperation (RCEP, CPTPP, APEC)

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Dr. Vo Tri Thanh, Vietnam National Committee for Pacific
Economic Cooperation (VNCPEC)



INCLUSIVE GROWTH: **The Case of Vietnam**

Kuala Lumpur, 16-17 October 2019



Lessons Learnt

Nature of Doi Moi (since 1986):

- To enlarge both sets of economic choices by people and the country's (people's and institutional) capability to exploit benefits from the newer choices.

■ Key dimensions: Market reforms + International Integration

Major achievements:

- From a poor country to a (low-) middle income
- Poverty declined significantly: Mid-1980s: 70%; 1993: 57%; 2018: 4%
- Emerging middle-income class



- Infrastructure dev't has been crucial to growth and poverty reduction
 - Importance of both highways and secondary networks
 - Priorities (due to financial constraints)

Impacts of public investment on rural poverty reduction
(No of poor reduced per 10 thousand Yuan/billion VND)

<i>Sector</i>	<i>China</i>	<i>Viet Nam</i>
1. Agricultural R&D	3.4 (3)	246.5 (1)
2. Irrigation	0.4 (6)	23.3 (5)
3. Roads	3.0 (4)	102.5 (3)
4. Education	6.3 (1)	164.6 (2)
5. Electrification	2.9 (5)	90.7 (4)
6. Rural telecommunication	4.0 (2)	

Note: Figures in parentheses are ranking of the impacts

- The specific-targeted programs have played very crucial role in reducing poverty, especially the "hard-core" poverty
 - Such as small scale infrastructure programs; employment programs; poverty reduction programs
 - The key: right targeting and sustainability of the programs (?)

The Next Agenda



Dev't goals (2021-2030)

- Laying down fundamental foundations for overcoming "middle-income trap"
- Achieving 7.0-7.5% economic growth relied more on innovation and productivity improvement while ensuring social and environmental sustainability

To improve the quality of people life

- Promoting equity & social inclusion, focusing on the *multi-dimensional poverty*
- Dealing with *ageing population* (the end of "golden age" by 2028)
- Building a new social security system for *a middle-income society*
- Taking *advantages of IR 4.0 and digital transformation* for both innovative economy and *inclusive community* (VN's IR 4.0 & National Digital Transformation Strategies focus on digital infrastructure, skills upgrading, MSMEs' dev't, and digital divide narrowing)

To leverage on the international cooperation

- ***APEC 2017***: Action Agenda on Advancing Economic, Financial and Social Inclusion. The overarching goal is to achieve a more inclusive APEC community by 2030. The Task Officials are to implement the Action Agenda beginning from 2018, with a mid-term report of progress in 2024, and a final review in 2030.
- ***APEC Beyond 2020 (PECC)***: Vision for APEC 2050 is that of an open and seamlessly interconnected community of member economies that supports a rules-based economic order and delivers robust, sustainable and inclusive economic growth for the peace and prosperity of their people and the world. **Note**: Almost 90% of respondents agreed that APEC has a useful contribution to make to promoting inclusive growth.
- ***ASEAN Vision 2040 (ERIA)***: Embedding people empowerment and leave no one behind principle toward Inclusive and people-centered ASEAN. **Key**: Harnessing the new technologies will strengthen the connection between inclusiveness strategies and the robustness of economic growth.

パネルセッション 2

Dr. Zhong Feiteng, Head and Professor, National Institute of International Strategy, Chinese Academy of Sciences (CASS)

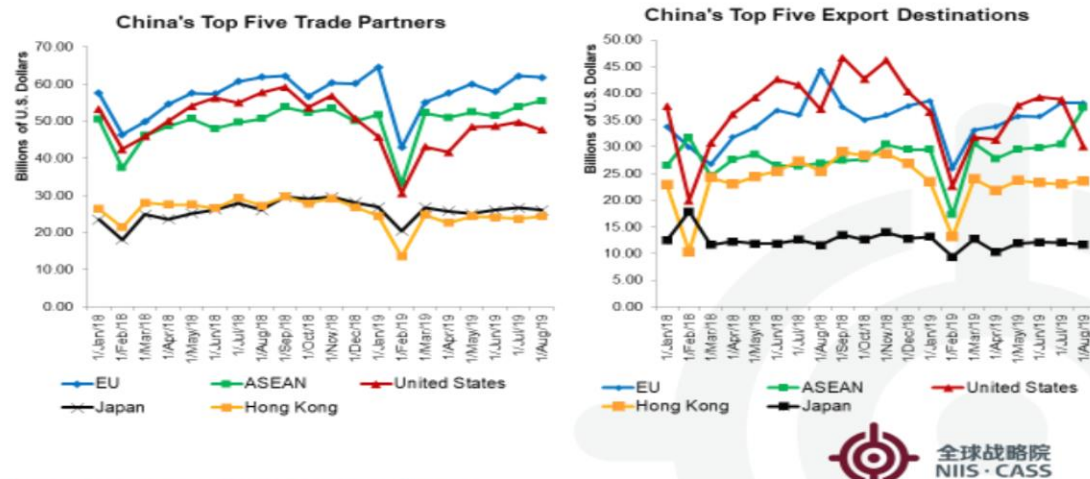
The Sino-U.S. Trade War and its' Implication for ASEAN

ZHONG Feiteng, professor
National Institute of International Strategy, Chinese Academy of Social Sciences
16 October, 2019, Kuala Lumpur



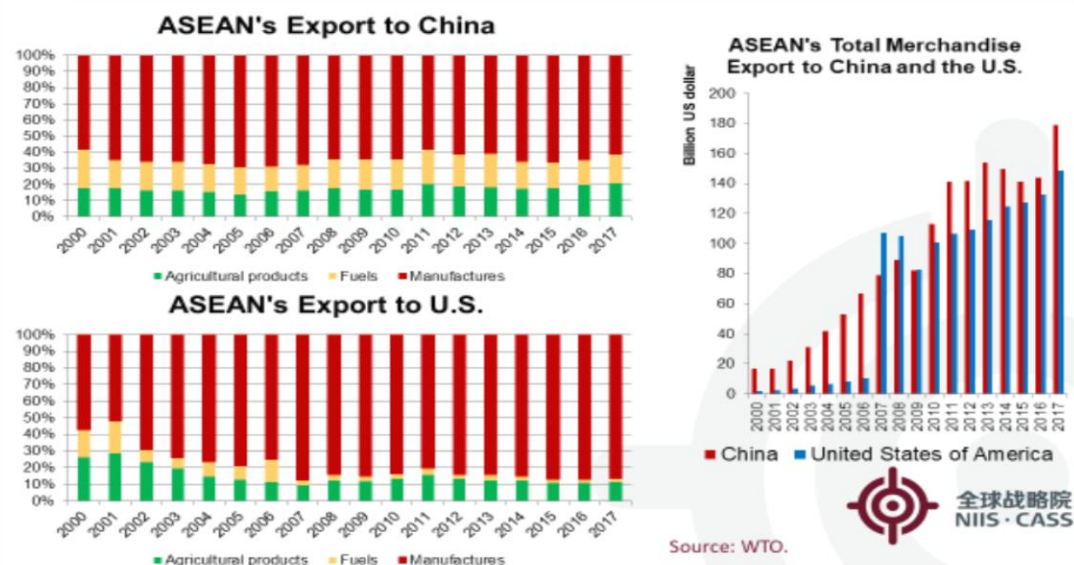
The ASEAN Overtook U.S. as China's No.2 Trade Partner

02



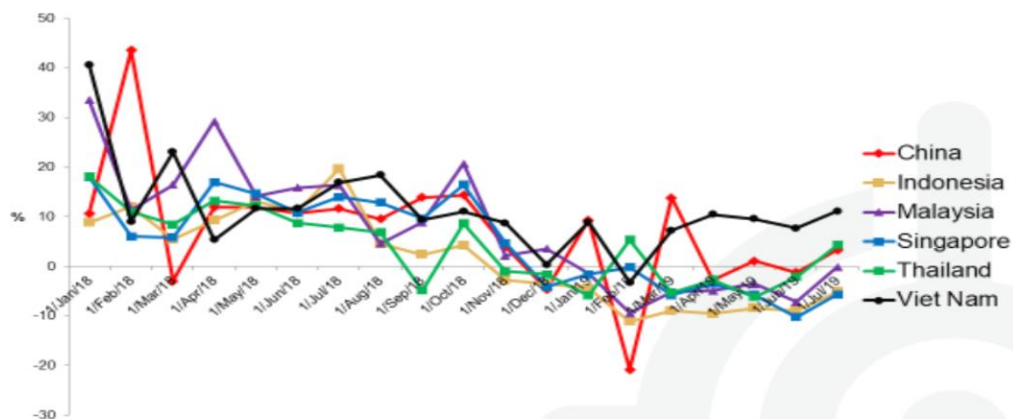
ASEAN's Trade Pattern with China and the U.S.

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China and ASEAN's Merchandise Exports, Is Vietnam an exception?

04

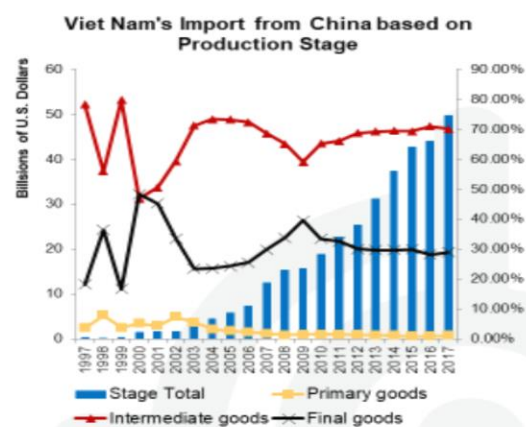
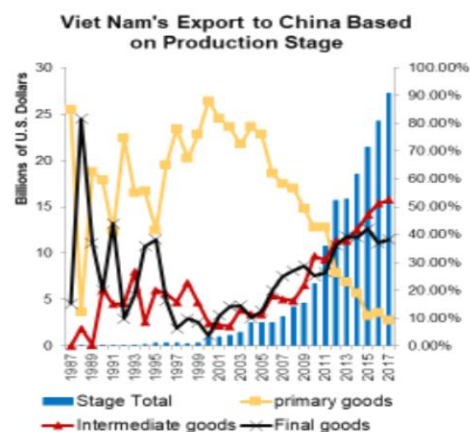


Source: Asia Regional Integration Center, Asian Development Bank.



International Production Network and Viet Nam and China Trade

05



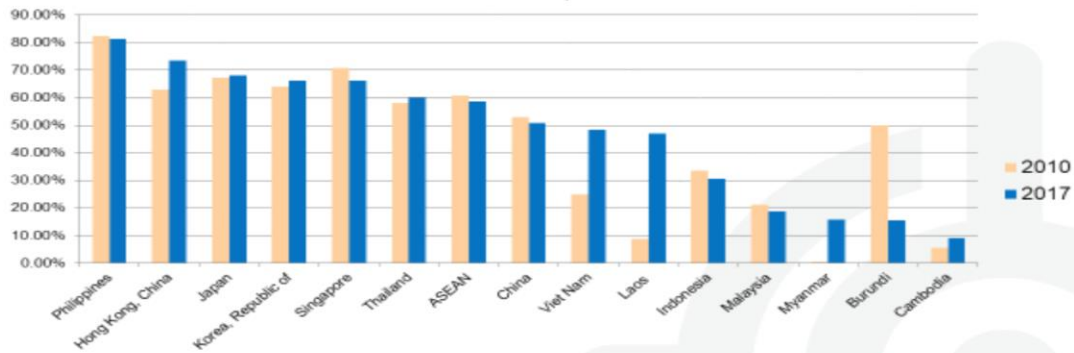
Source: RIETI-TID 2017.



Vietnam is the latest case to join the Age of second unbundling

06

The Share of Machinery and transport equipment in Manufactures' Trade (2010, 2017)



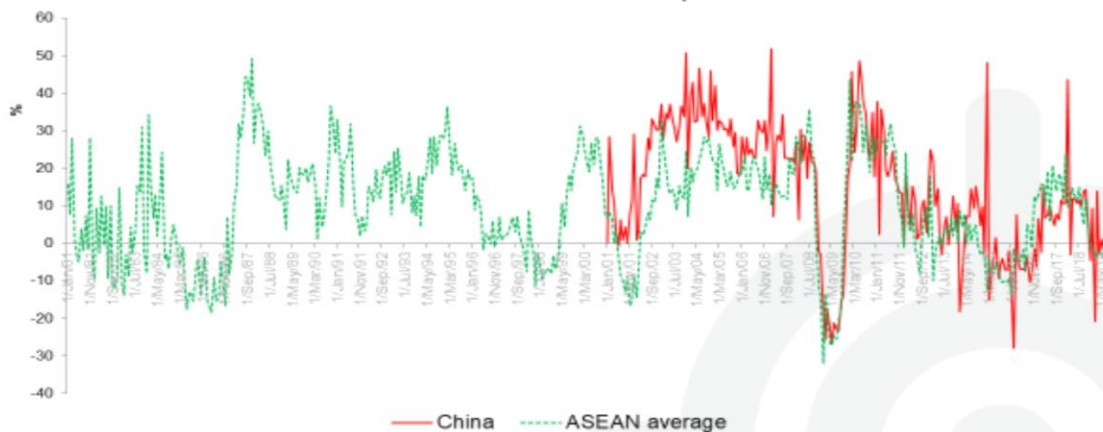
Source: WTO.



External Shocks and the duration of negative monthly export growth

07

China and ASEAN's Merchandise Export Growth



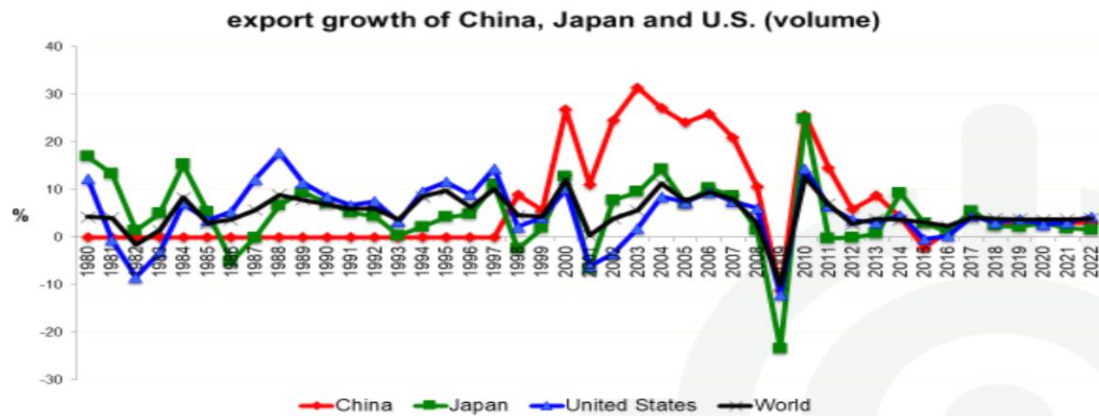
Note: ASEAN average means the arithmetic mean of five countries: Indonesia, Malaysia, Singapore, Thailand and Viet Nam.

Source: Asia Regional Integration Center, Asian Development Bank.



International environment Change: China's export Boom and the Great Trade decline

08



Source: World Bank.



That's all.
Thanks!

中国社会科学院亚太与全球战略研究院
National Institute of International Strategy Chinese Academy of Social Sciences

Amb Murray Mclean AO, Chairman, Dunmore Mclean Pty Ltd

Asia-Pacific Forum 2019

Public Symposium on

“The Future of the Asia-Pacific Economies Beyond 2020”

Panel comments: Murray McLean – 16 October 2019

Panel Session 2:

Progress of Regional Integration in the Asia-Pacific Region and its Outlook

“Guiding questions” addressed generally in these remarks:

- 1. What is the mid-term and long-term outlook for regional trade amidst trade tensions?*
- 2. Should countries in the region continue pushing for trade liberalisation going forward beyond 2020*
- 3. Which type of mega-regional trade deals are needed to reinvigorate further trade liberalisation and facilitation efforts in the long-term*

We are facing a pivotal point in world affairs, particularly in our own Asia/Indo/Pacific region.

We are all familiar with this dynamic and fast-changing world situation, which is characterized by trends such as:

- shifting strategic power balances,
- major trade disruption principally stemming from the US/China trade dispute,
- widespread disruption of accepted international institutions and norms,
- cross-border threats from terrorism and cyberspace and
- rapidly increased use of, and dominance in our economies, of new technologies such as artificial intelligence, smart cities, social media and e-commerce.

In managing the challenges at this pivotal time and attempting to forecast the medium to longer-term outlook for regional trade, the first and most important point to note is that the Asia/Indo/Pacific region remains the most productive source of global economic growth.

Moreover, the relative strength and resilience of Asia-Pacific economies which we have experienced over the past decade, is a trend that has continued in 2019, even if at a slowing pace. And despite a slowdown this resilience looks certain to continue for some years to come.

Economic resilience will be fundamental element in offsetting the extent to which the region's economic growth may be adversely affected by global and regional macro-developments.

My second point is that economic resilience alone is not enough. The fact that the US/China trade dispute has already impacted on the regional economy and its trade volumes and patterns, including changing regional and global supply chains, means it is very important that regional countries do not sit by passively, or as spectators. Working together multilaterally and collectively to shape rules, norms and standards for the region's trade and investment is critical.

Such collective action needs also to be supplemented by what countries can do individually, to preserve free and open trade, and to implement domestic reforms that remove behind-the-border barriers to trade and investment to advance economic health and growth.

A combination of collective multilateral action and individual action by countries for the medium and long-term will be an essential ingredient of ensuring continued economic development and growth.

Since our shared region's economic strength is so fundamental to global economic health, there is no more important time than now, for the region to take a leadership role, working collectively. This is especially so because long-established and broadly-accepted multilateral institutions, international norms, rules and practices have been steadily eroded in the past few years.

So my third point is that it is in our strong mutual interests that we, in our region, do everything possible to counter that adverse protectionist trend wherever possible and maintain openness, transparency and fairness in trade regimes.

It is not the subject of this conference, but the unfolding strategic competition between the United States and China extends well beyond trade and investment and its direct effect on the US/China bilateral relationship. Suffice to say the most obvious impacts are that the trade dispute has slowed down global economic growth generally, and that the preferential/protectionist measures being adopted are impacting on the trade performance of third countries.

In this resort to protectionism which is basically a zero-sum approach, there is diminishing reliance on all of the positive measures the global multilateral trade agenda has achieved over past decades. It is critical that the countries of the Asia/Indo/Pacific region do not simply wring their hands in despair or seek only to survive by navigating

the cross-currents. It is essential to commit pro-actively and collectively to trying to shape the outcomes most beneficial to the region and to individual countries.

Accordingly, the region's long-term interests will be best served if the RCEP negotiations are concluded as soon as possible, in order to demonstrate to a global audience, the benefits of multilateral liberalization that aims to ensure open and free markets and develops new momentum for ongoing reform.

A successful outcome at the planned November summit would demonstrate that the countries of the Asia/Indo-Pacific are prepared to act in a leadership role in support of the ongoing value of the multilateral trading system.

Major regional economies notably China, India and Japan – as well as ASEAN countries and Australia and New Zealand are now all generally committed to achieving a successful RCEP outcome at least by year-end.

Looking into the medium to longer term, a successful conclusion of RCEP negotiations should mean RCEP is well-placed not simply to help remove trade distortions and build new regulatory arrangements for services, but also to enhance the region's investment climate and to set up new regulatory frameworks for international financial movements and for areas of the new economy. If any or indeed all of this takes place, it will deliver a powerful message against protectionism.

More broadly, the critical role of ASEAN, beyond RCEP, is for others present today to speak about. But clearly, ASEAN's continued central importance to the region's economic integration should be noted very positively.

With the realization of RCEP (potentially) and CPTPP, ASEAN is well-placed, consistent with the themes in its most recent "ASEAN Outlook on the Indo-Pacific", to work collectively with other regional countries such as Japan, Australia, India, China and Korea. This for example, can be in the G20 or the WTO or APEC. Working together, regional countries can be standard-setters for new norms, rules and institutions or for updating or adjusting regulations and institutions to make them more fit for purpose.

WTO is a clear case where action on making it more fit for purpose can be influenced by the region with ASEAN/RCEP in a leading role. Collective work by regional countries in the creation of new standards and norms for management of cyber-security, AI, smart cities and regulation of social media are examples of future important cooperation.

Ms. Anita Prakash, Director of Policy Relations, Economic Research Institute for ASEAN and East Asia (ERIA)

Asia-Pacific Forum 2019

The Future of the Asia-Pacific Economies Beyond 2020

How can the Asia-Pacific Region achieve a better globalization in coping with rising populism and emerging inequality?

Session 2: Progress of Regional Integration in the Asia-Pacific Region and its Outlook

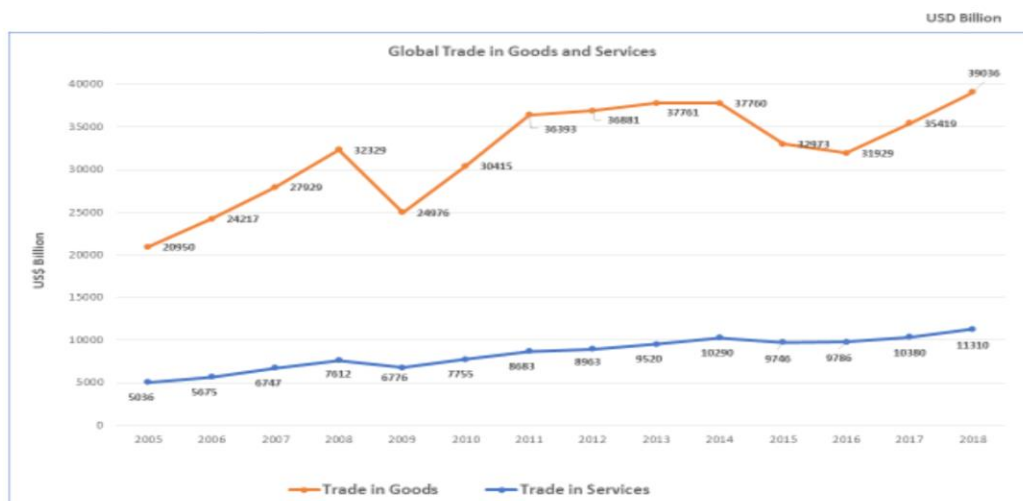
16 October 2019
Kuala Lumpur



Anita Prakash

Director, Policy Relations
Office of President of ERIA
Economic Research Institute for ASEAN and East Asia (ERIA)
Jakarta, Indonesia

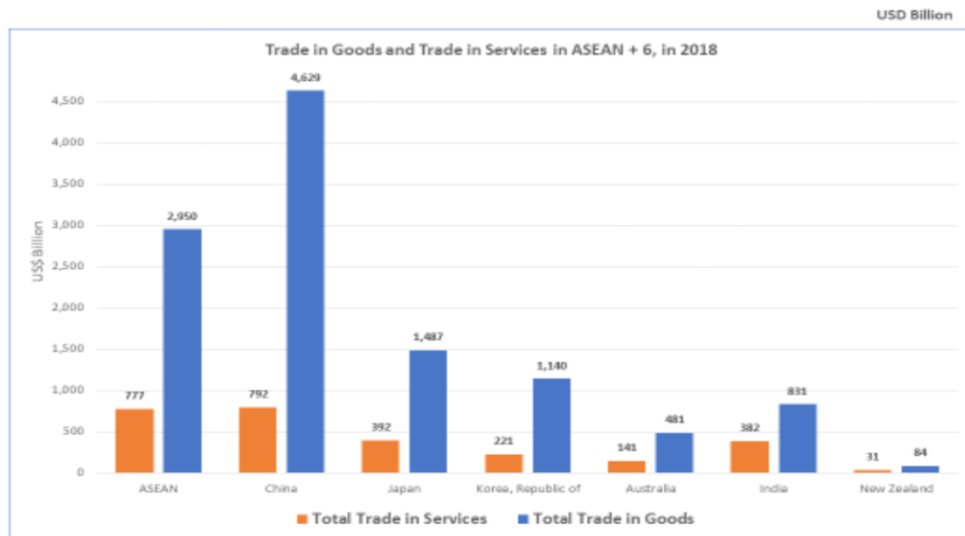
Global Trade in Goods and Services: Prognosis



Source: International Trade Center (2019)



Goods and Services Trade in ASEAN + 6

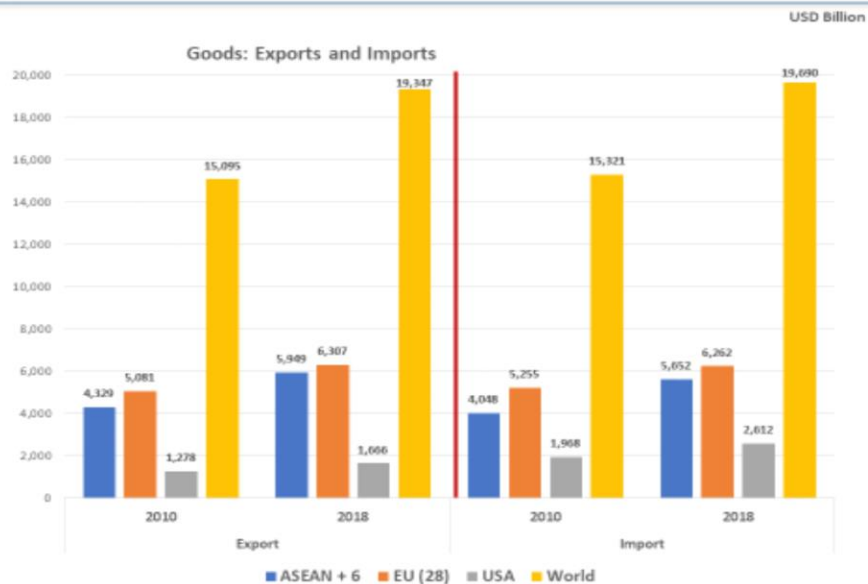


Source: International Trade Center (2019)



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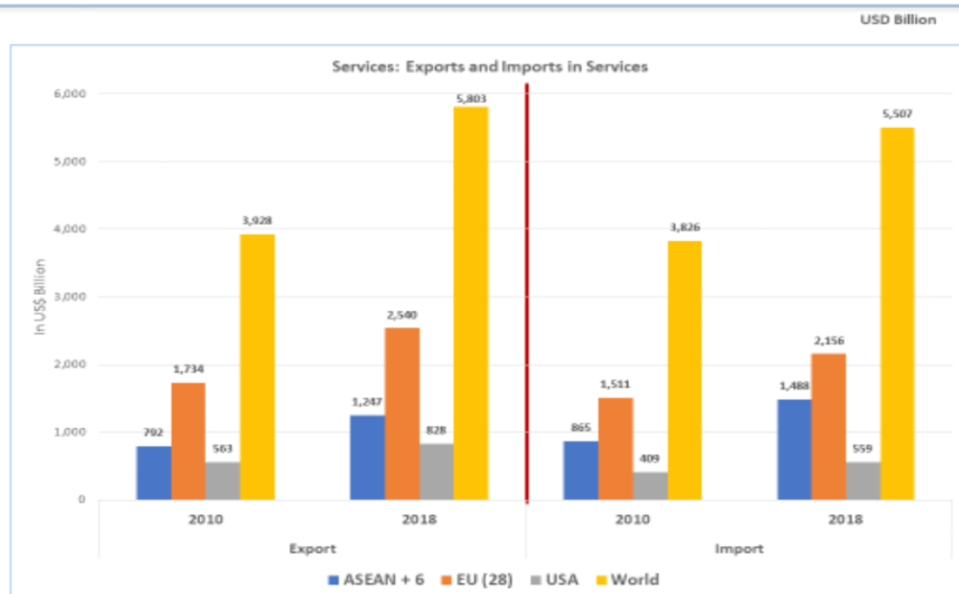
Goods Trade in ASEAN + 6 and Selected Economies



Source: International Trade Center (2019)

4

Services Trade in ASEAN + 6 and Selected Economies



Source: International Trade Center (2019)

5

Outlook for Asia Pacific Region: Reality or Hope

Country	2017	2018	2019	2020
ASEAN - 5 Countries				
Indonesia	5.1	5.2	5.1	5.1
Malaysia	5.7	4.7	4.4	4.6
Philippines	6.7	6.2	6.0	6.3
Thailand	4.0	4.1	3.5	3.6
Viet Nam	6.8	7.1	6.7	6.6
Brunei Darussalam and Singapore				
Brunei Darussalam	1.3	0.1	1.6	1.9
Singapore	3.7	3.1	2.4	2.5
CLM countries				
Cambodia	7.0	7.5	7.0	6.8
Laos PDR	6.9	6.4	6.6	6.7
Myanmar	6.8	6.2	6.9	6.9
China and India				
China	6.8	6.6	6.2	6
India	7.2	6.8	7.2	7.4
Average of ASEAN 10 Countries	5.3	5.1	4.9	5
Average of Emerging Asia	6.6	6.4	6.2	6.2

Source: Economic Outlook for Southeast Asia, China and India 2019 – Update



Note. Data are as of 31 May 2019. Data of Cambodia and Myanmar in 2018 are preliminary estimates. Data of India and Myanmar relate to fiscal years. For Myanmar, the 2018 data are based on ADB (2019) and IMF (2019) and refer to the interim period ending September 2018. Singapore and Thailand data are based on chain-linked volume measures. The projections for China, India, and Indonesia are based on the OECD Economic Outlook No. 105 database.

Outlook for Asia Pacific Region?

Post GFC recovery – largely consumption based
Especially in Asia

Investments remained lukewarm
Except when creating new supply chains

In 2019, dismal data from all parts of world
Tightening of monetary policies reversed

Mid term- consumption and services, both contracting; spillover from goods to services sector

Lack of enthusiasm for trade agreements is understandable: no avenues for stress test

Long term – Policies for employment led growth; Employment and Human resource; Industry 4.0, Social security

Can trade deals serve longer term needs?

Panel Question: Which mega-regional FTA/Trade deal are required for further trade liberalisation in the longer term?

In trade, can there be a longer term?

- Mega regionals have lost policy focus (RCEP is comparably opaque now)
- Either USA, or China
- EU is more available; Japan-EU, Japan-USA

New value chains, new markets for trade and investment, labour mobility and training

Countries which created absorption capacities: Vietnam, Bangladesh, African countries

パネルセッション 3

Dr. Ahn-choong-yong, Distinguished Professor, Graduate School of International Studies, Chung-Ang University

The Fourth Industrial Revolution (4IR) is growing out of the Third Industrial Revolution (3IR), namely the digital revolution, but it is considered a new era rather than a continuation of its predecessor. 4IR is categorized by its disruptiveness, evasiveness, explosiveness and breakthrough of big data and AI. There is a need to make a distinction between digitally advanced economies and digitally backward nations, as what is needed varies by country depending on its degree of information and communications technology (ICT) development and availability of digital manpower.

Digitally backward economies need to expedite ICT hardware infrastructure and software development by cultivating digital manpower. These economies also need to benchmark the German experience, as evident in 4IR and the Japanese experience of factory automation of small and medium-sized enterprises (SMEs).

Digitally advanced economies face a hegemonic competition for new industries due to the winner-takes-all nature of connectivity and explosiveness of 4IR. This is evident in the ongoing U.S.-China trade war and restrictions in international transactions.

The countries that own big data are likely to own the future. In particular, the effective fusion of information technology and biotechnology may determine new industrial competitiveness.

A serious challenge in many countries is how globalization has broadened the unequally shared fruits of trade liberalization and worsened income inequality, which, in turn, helped populist political leaders establish illiberal political regimes across several nations in this region.

Innovation and expansion are needed to promote inclusive growth and ensure an ongoing regional cross-border supply chain. This will allow more active SME participation, which will create jobs for those of relatively low income, raise their incomes and elevate their socio-economic wellbeing.

In this regard, there is a need to ensure bottom-up SMEs through business-to-business (B2B), business-to-consumer (B2C) and the business-to-government (B2G) processes. To expand the regional value chain, trade rules need to be harmonized so that parts and components can freely cross borders. For this to happen, standardization, an agreed-upon sanitary and phyto-sanitary measures, a mutual recognition system and a business-friendly environment for FDI are critical. To broaden growth, quality improvements in logistic services and the management of seaports and airports in low-income and middle-income economies throughout Asia Pacific are also necessary.

The United States and China especially should work out the bottom line of free trade rules. Smaller economies should not have to decide which country to align with. And like-minded middle- and low-income countries should pursue plurilateral FTAs to ensure ongoing supply chains and minimize negative consequences.

Digitally advanced economies should work out an environment in which people focus on servicing and leveraging AI instead of competing with it. The job market then in the long run would need human-AI cooperation rather than human-AI competition. Investments in human capital to upgrade and expand

the talent pool are paramount as we prepare for 4IR.

Another major issue related to creating a level-playing field for a liberal trade order involves subsidies to state-owned enterprises (SOEs) and the protection of intellectual property rights (IPRs).

For inclusive liberal trade, offline and online intra-regional connectivity is crucial and must be enhanced.

Another serious challenge is that 4IR can be used to erode security and violate privacy. In this regard, a broad multi-stakeholder alliance is necessary to create a platform for sharing digital public goods, engaging talents, and pulling datasets in a manner that respects privacy.

Dr. Yose Rizal Damuri, Head of Department of Economics, Center for Strategic and International Studies (CSIS)



The Changing Landscape of International Economic Activities

- The world is changing
 - In a faster pace, in a more complicated shape and in an unpredictable way
- There are at least four aspects affecting global economic landscape
- Those would affect East Asia and Pacific economy directly and indirectly
- Require appropriate response in policy and understanding

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graph TD; A[Disruptive Technologies] <--> B[Nationalism and Protectionism affecting global governance]; B <--> C[Demographic Changes]; C <--> D[Environmental Issues and Climate]; D <--> A; A <--> C; B <--> D;
```

The diagram illustrates the interconnected nature of four key aspects affecting the global economic landscape. At the top is a red box labeled 'Disruptive Technologies'. Below it are three blue boxes: 'Nationalism and Protectionism affecting global governance' on the left, 'Demographic Changes' on the right, and 'Environmental Issues and Climate' at the bottom. A central blue box with four arrows pointing outwards connects all four outer boxes. Colored arrows also connect the outer boxes: a blue arrow from Nationalism to Disruptive Technologies, an orange arrow from Disruptive Technologies to Demographic Changes, a grey arrow from Demographic Changes to Environmental Issues, and a yellow arrow from Environmental Issues to Nationalism. Additionally, there are direct arrows between Disruptive Technologies and Demographic Changes, and between Nationalism and Environmental Issues.

-
- ```

graph TD
 DT[Disruptive Technologies] --> NP[Nationalism and Protectionism affecting global governance]
 NP --> EI[Environmental Issues and Climate]
 EI --> DC[Demographic Changes]
 DC --> DT
 DT <--> DC
 NP <--> EI
 EI <--> DC
 DC <--> DT

```

# Why the Current Technological Progress Needs More Attention

# Exponential growth of computing power

## 1 The accelerating pace of change ...



## 2 ... and exponential growth in computing power ...

Computer technology, shown here climbing dramatically by powers of 10, is now progressing more each hour than it did in its entire first 90 years.

**COMPUTER RANKINGS**  
By calculations per second per \$1,000



**Analytical engine**  
Never fully built, Charles Babbage's invention was designed to solve computational and logical problems.



**Colossus**  
The electronic computer, with 2,500 vacuum tubes, helped the British crack German codes during WW II.



**UNIVAC I**  
The first commercially marketed computer, used to tabulate the U.S. Census, occupied 943 cu. ft.



**Apple II**  
At a price of \$1,298, the compact machine was one of the first mass-produced personal computers.

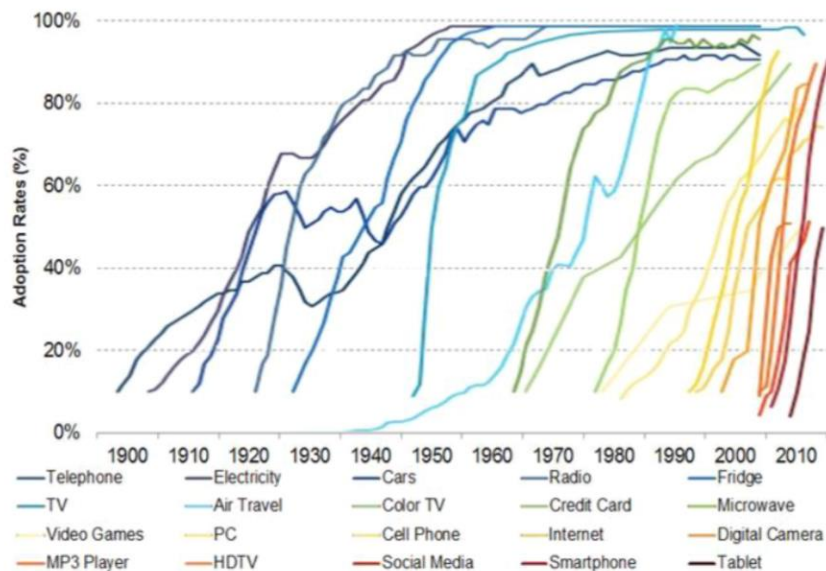


**Power Mac G4**  
The first personal computer to deliver more than 1 billion floating-point operations per second.

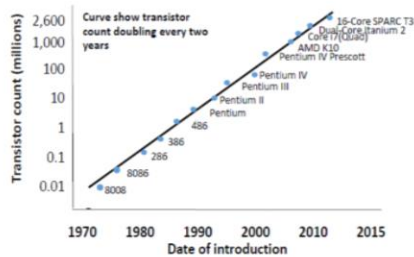


<https://humansworld.files.wordpress.com/2014/01/moores-law-graph-gif.png>

# Rapid Adoption of Technology



## Significant Cost Reduction



| Industries   | Past         | Current    | Change             |
|--------------|--------------|------------|--------------------|
| 3D Printing  | \$40,000     | \$100      | 400x in 7 years    |
| Drones       | \$100,000    | \$700      | 140x in 6 years    |
| Sensors      | \$20,000     | \$79       | 250x in 5 years    |
| Neurotech    | \$4,000      | \$90       | 44x in 5 years     |
| Biotech      | \$10 million | \$1,000    | 10,000x in 7 years |
| Solar Energy | \$30/kWh     | \$0.16/kWh | 200x in 30 years   |

**"When an industry becomes software<sup>1</sup> it is subject to Moore's law, and it goes exponential. Then everything gets disrupted." - Jonathan Anscombe<sup>2</sup>**

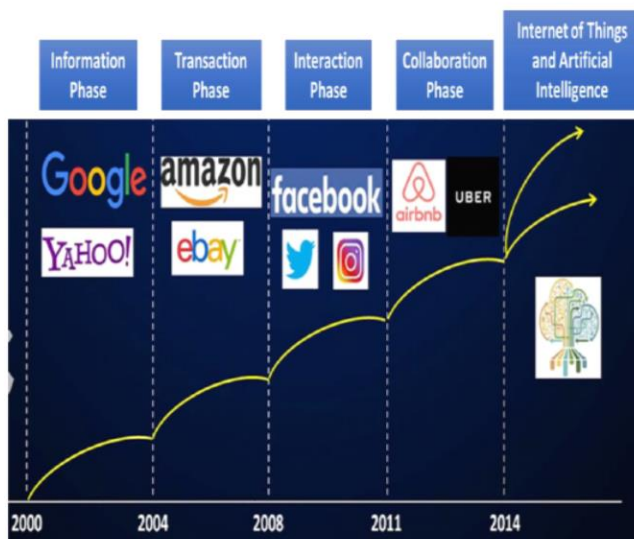
1. Reference to Marc Andreessen's quote "Software is eating the world"

2. A.T. Kearney Partner in Global Health Practice

Source: Exponential Organizations (by Salim Ismail, Yuri van Geest, Michael S Malone)

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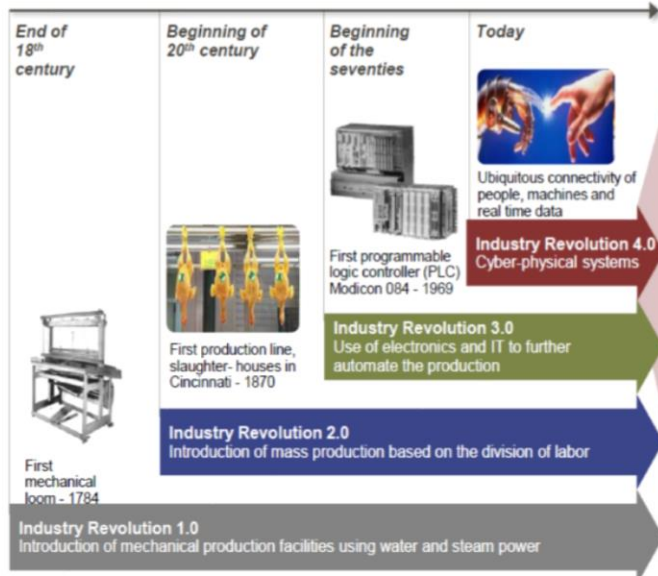
## Wider Application of Digital Technology....



Oliver Wyman, The Digital Future Project

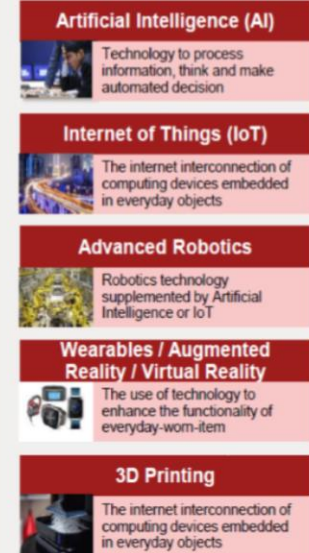


## Industrial Revolution Timeline



Source: AT Kearney (2017)

## Key Technology of IR 4.0



# Some Implications to the Global Economy



## Jobs of the future might be different....

### New Landscape for Future Jobs

The needs for higher, wider and more variety of skills

Higher demand for STEM dan *emotional intelligence*

Increasing new and "informal" jobs

Many jobs are not permanent and require more often transitions

Automation and technological changes will replace 400-800 million jobs in 2030

McKinsey 2017

Technology has reduced the demand for routine jobs in Indonesia's manufacturing. Reducing the relative wages of *low-skilled*

Yudho and Mangunsong, CSIS 2019

Online-transportation platforms in Indonesia has helped hundreds of thousand people to get higher income

Damuri et. al, 2019

## More and more globalization....

Despite the current trend of protectionist and anti-globalization, the technology would push for less relevant national boundaries



Cross-border e-commerce

Reconfiguration of GVC

Cross-border services

Services offshoring / Virtual migrants

Those have a lot of implications to social welfare....

Risks of greater income inequalities

Greater importance of social protection

Declining government capacity to collect revenue

Some Required Actions



## Three Important Elements of Digital Era

### Human Resources

- Expanding talent pool
- Improve STEM capabilities
- Flexible labor market but with better protection
- Allow and integrate talented immigrants

### Infrastructure and Innovation

- Improving ICT infrastructure, in particular mobile connectivity
- Creating more competitive and reliable telecommunication services
- Supporting research and innovation in digital technology applications

### Policy and Regulatory Framework

- Flexible regulations to accommodate the changes
- Development policy which accommodate various aspects, e.g security, protection, competition, taxation etc
- Greater regulatory cooperation and, while necessary, harmonization

## Supply side ICT: availability, accessibility and affordability

- First mile: internet enters a country
  - Satellites, international gateways (monopoly)
- Middle mile: passes through the country
  - Backbone network (liberalizing)
  - Open access to incumbent's network
  - All major infrastructure to include optic fiber (roads, railways, pipelines and energy)
- Last mile: reaches the consumer Connectivity and convergence (intermodal - cable, wireless and digital)
- Invisible mile: spectrum management and availability, competitive access and sharing of essential facilities (API sharing?)

## Policy Issues

| Policy Areas                | Possible Issues                                                                                                                                              | Illustrative Cases                                                                                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Competition-related         | <ul style="list-style-type: none"><li>- Definition of relevant market</li><li>- Winner takes all</li><li>- Definition of anti-competitive behavior</li></ul> | <ul style="list-style-type: none"><li>- Web-based vs traditional transport services</li><li>- Acquisition of platforms to increase market share</li><li>- Some e-commerce platforms might use consumers' profiles and characteristics for other services they offer</li></ul> |
| Consumer protection         | <ul style="list-style-type: none"><li>- Fraudulent activities in C2C and B2C marketplaces</li><li>- Risky payment mechanism</li></ul>                        | <ul style="list-style-type: none"><li>- Complaints about quality of goods, or delivery time</li><li>- Especially in using credit cards on unsecured services</li></ul>                                                                                                        |
| International trade         | <ul style="list-style-type: none"><li>- Cross-border e-commerce</li><li>- Impact to domestic industry and start-up services</li></ul>                        | <ul style="list-style-type: none"><li>- Tariff application for such imported goods</li></ul>                                                                                                                                                                                  |
| Taxation                    | <ul style="list-style-type: none"><li>- Taxing internet-based economic activities</li></ul>                                                                  | <ul style="list-style-type: none"><li>- Problems if the services is supplied cross-border, e.g. Google case, Amazon</li></ul>                                                                                                                                                 |
| Data protection and traffic | <ul style="list-style-type: none"><li>- Freedom of data flow and privacy</li></ul>                                                                           | <ul style="list-style-type: none"><li>- Requirement for localization of data centers</li></ul>                                                                                                                                                                                |

# Thank You

Dr. Josef T. yap, Senior Technical Advisor, ASEP-CELLs Project,  
Ateneo School of Government

## **Industrial Revolution 4.0 and Globalization 4.0**

***Josef T. Yap***

*16 October 2019*

### **First 3 Industrial Revolutions**

- 1IR : steam engines and mechanical production
- 2IR: electricity, automation and mass production
- 3IR: computer and digital technology

## **Fourth IR: ICT and the Digital Revolution**

- **Elements of ICT**

- Big Data analytics
- Robotics process automation and Artificial Intelligence
- Cyber-physical systems (e.g. Internet of Things)
- Blockchain technology

- **Main Technical Achievements**

- Internet
- 3D printer
- Autonomous vehicles
- Genetic Engineering

## **Challenges**

- Rising income and wealth inequality (mostly within country)
- Developing countries have not completed 123IR. Can they leapfrog?
- Locking in deregulation (companies like Airbnb are known for operating in regulatory grey zones)
- Collecting, legally or illegally, massive volumes of personal user data from around the world
- Securing monopoly positions by shutting out or buying up competitors

## **Opportunities**

**Focus on Globalization 4.0**

## **History of Globalization**

- Globalization 1.0: 1820 – WWI
- Globalization 2.0: WWII – 1990

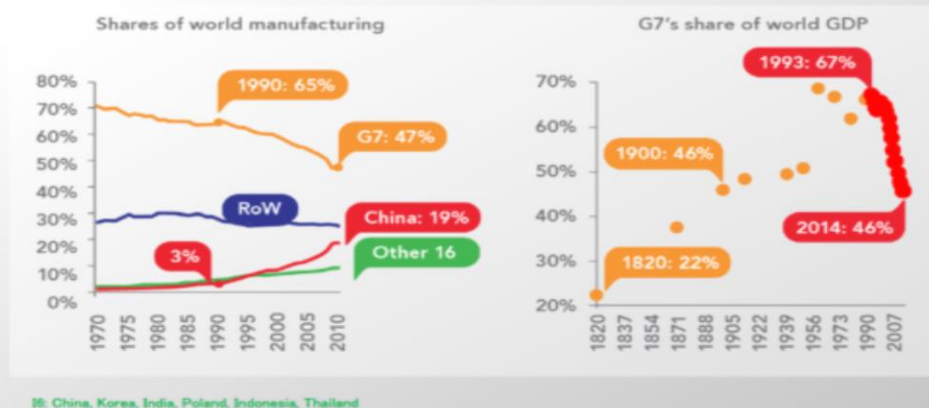
NOTE: Globalization 1.0 and 2.0 led to the Great Divergence

- Globalization 3.0: 1990 – present

NOTE: Globalization 3.0 led to the Great Convergence (driven largely by exchange of “ideas”; ICT revolution led to proliferation of GVCs)

## Divergence and Convergence

Manufacturing & GDP shares shifted from G7 to a few developing countries



Source: R. Baldwin "The Great Convergence: IT and the New Globalization"

## Globalization 4.0: Emerging

- **Elements of Globalization 4.0**
  - Decline in "face-to-face" costs
  - "The explosive growth of digital technology creates the possibility of remote intelligence (RI)"
- **Main Technical Achievements**
  - Tele-migration
  - Tele-robotics
  - Expansion of digital platforms like Upwork.com

## Brain jobs that telepresence could offshore?

| Average monthly salaries in USD |       |             |
|---------------------------------|-------|-------------|
|                                 | US    | Philippines |
| University Professor            | 6,100 | 400         |
| School Teacher                  | 4,100 | 300         |
| Engineer                        | 6,200 | 570         |



Source: R. Baldwin "The Great Convergence: IT and the New Globalization"

## Policy Directions

- Promote social cohesion with policies that protect individual workers, not individual jobs; re-training, education, mobility support, income support
- Bottom-up decision making
- Emphasize coordination—achieving shared objectives—rather than cooperation—acting out a common strategy (e.g. Paris Agreement, SDGs)



Assoc Prof Simon SC Tay, Chairman, Singapore Institute of International Affairs (SIIA)

Talking Points for JEF Asia-Pacific Forum 2019

The Future of the Asia-Pacific Economies Beyond 2020

Panel Session 3: New Challenges for Achieving Economic Prosperity

Simon Tay

Four major disruptions:

- (1) geopolitical, in the Sino-American conflict;
- (2) social cohesion, in the populism and increased potential for tension and unrest within countries;
- (3) technological, in what some call the 4th industrial revolution changing ways



goods and services are conceived, produced and delivered; and  
(4) climate and sustainability, as we face limits to the use of our resources and existential and negatives threat in our environment.

Risky scenarios:

- (1) globalization gives way to protectionism and narrow strident nationalism;
- (2) efficient and rules-based win-win cooperation gives way to chaotic, beggar-thy-neighbor policies and bullying;
- (3) technological and other advancements like infrastructure are concentrated and lead to winner-take-all outcomes that sharpen inequalities between countries and also within each society; and
- (4) climate concerns and carbon constraints lead to radically different priorities among countries, companies and peoples without any agreed basis for cooperation and become reasons for conflict.

Priorities for the region:

- Engage both sides in Sino-American conflict
- Develop coherent and consistent frameworks to harness benefits of digitization while mitigating costs and risks
- Collective leadership in the region e.g. RCEP as a signal

==

Panel Session 3: New Challenges for Achieving Economic Prosperity

New difficulties have arisen in realizing inclusive growth and achieving the economic prosperity and stability of the Asia-

Pacific region. One of them is Digital Revolution and the other is political populism. The Fourth Industrial Revolution and Digital Revolution are taking place in this region and their negative impact is a matter of particular concern. Regarding populism, the question is whether political populism causing anti-globalization movement is breaking out in this region.

In coping with these concerns and realizing the socio-economic stability and prosperity of the region, what should we do? In this session, human resource development, infrastructure development, both software and hardware, and

other relevant issues as their possible solutions are examined.

Guiding questions:

- What is needed for countries in the region to participate in the 4th Industrial revolution?
- How does quality infrastructure fit into the needs of a region in boosting its supply capacity?
- What can be done to offset the anti-globalization sentiment on the ground?

Dr. Priyadarshi Dash, Assistant Professor Research and Information System for Developing Countries (RIS)

**Growth Triggers in Asia-Pacific:**  
**Quality Infrastructure and Digital Economy**

**Dr. Priyadarshi Dash**  
**Assistant Professor**  
**RIS, New Delhi**

## Current State of Economy in Asia-Pacific

- IMF forecasts high unemployment rate (>10%) for Armenia (17.5%), Iran (19.4%) and Turkey (10.5) prevailing till 2024.
- Unemployment rate in 10 other countries- Australia, Azerbaijan, Brunei Darussalam, Indonesia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Philippines and Russia are 5 % or more.
- Very high inflation in Iran (25%) and Turkey (12.4%) and high inflation (>3%) in 17 countries.
- Five countries- Azerbaijan (12.8%), Brunei Darussalam (16.7%), Macao (41.7%), Papua New Guinea (13.5%) and Singapore (15%) run high current account surplus and LDCs and island economies like Bhutan, Cambodia, Lao PDR, etc run high current account deficits.
- Gross Fixed Capital Formation- 11 countries show gradual improvement & 13 countries experienced fall.

## Policy Choices- Orthodoxy vs New Paradigms

- **Expansionary Fiscal Policy:** Managing aggregate demand through fiscal stimulus & public investment programmes
- **Promoting Trade & Investment:** Opening up of external sector without structural reforms in domestic economy
- **Virtuous Rise of Market Economy:** As both government and market fail, greater space for public-private partnership
- **Investment in Human capital:** Rise of AI, Big data, Block chain necessitate higher technical, cognitive and digital skills

### Estimates of Infrastructure Investment Gaps (2016-2030) (% of GDP)

| Region/Sector | Current Trends | Investment Need | Financing Gap | SDGs (Additional Need) |
|---------------|----------------|-----------------|---------------|------------------------|
| <b>Sector</b> |                |                 |               |                        |
| Road          | 1.0            | 1.3             | 0.3           | -                      |
| Electricity   | 1.0            | 1.1             | 0.1           | 0.2                    |
| Railways      | 0.4            | 0.4             | 0             | -                      |
| Telecoms      | 0.3            | 0.3             | 0             | -                      |
| Water         | 0.2            | 0.2             | 0             | 0.1                    |
| Airports      | 0.1            | 0.1             | 0             | -                      |
| Ports         | 0.1            | 0.1             | 0             | -                      |
| <b>Region</b> |                |                 |               |                        |
| Asia          | 4.0            | 4.4             | 0.4           | 0.3                    |
| America       | 1.7            | 2.5             | 0.8           | 0.1                    |
| Europe        | 2.3            | 2.6             | 0.3           | -                      |
| Africa        | 4.3            | 5.9             | 1.6           | 3.4                    |
| Oceania       | 3.5            | 3.8             | 0.3           | -                      |

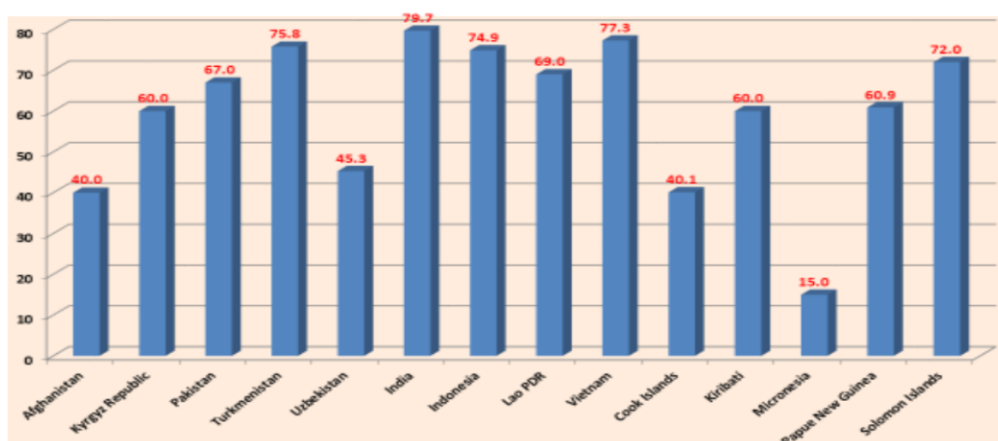
### Infrastructure Spending Needs in Low and Middle Income Countries between 2015 and 2030

| Sector               | Share of GDP (%) |             | US\$ Billions |             |
|----------------------|------------------|-------------|---------------|-------------|
|                      | Capital          | Maintenance | Capital       | Maintenance |
| Electricity          | 2.2              | 0.6         | 780           | 210         |
| Transport            | 1.3              | 1.3         | 420           | 460         |
| Water and Sanitation | 0.55             | 0.75        | 200           | 70          |
| Flood Protection     | 0.32             | 0.07        | 100           | 20          |
| Irrigation           | 0.13             |             | 100           |             |
| Total                | 4.5              | 2.7         | 1550          | 760         |

### SDG Target 9.a.1: Total Official International Support to Infrastructure (Constant 2016 Million)

| Sub-Region            | 2000   | 2016   |
|-----------------------|--------|--------|
| Central and West Asia | 1164.4 | 5941.9 |
| East Asia             | 2259.9 | 2676.1 |
| South Asia            | 3798.5 | 7762.9 |
| Southeast Asia        | 3429.4 | 5948.2 |
| The Pacific           | 241.3  | 577.5  |

### SDG Target 9.c.1b: Proportion of Population Covered by 3G Mobile Networks



## **Leveraging Digital Economy & Infrastructure**

- Infrastructure investment in physical, social and digital contributes to economic corridor development.
- Digital connectivity unleashes potential for fintech, e-commerce and IT-enabled services sectors.
- Social infrastructure through formal education, training and skill development programmes builds future generations for Industry 4.0.
- Cooperation among Asia-Pacific countries in technology development, sharing of knowledge & expertise, skilling, etc addresses limits of national capabilities and bring synergy.