

Growth Triggers in Asia-Pacific: Quality Infrastructure & Digital Economy



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Evolving Economic Situation in Asia-Pacific

The economic situation in the Asia-Pacific region before the Covid-19 pandemic (based on data up to 2018) was stable but with structural instability building up on several fronts. The IMF forecasted that high unemployment rates (>10%) for Armenia (17.5%), Iran (19.4%) and Turkey (10.5) would prevail till 2024. The unemployment rates in 10 other countries – Australia, Azerbaijan, Brunei, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, the Philippines and Russia – were at 5% or more. Very high inflation was also observed in Iran (25%) and Turkey (12.4%), and high inflation (>3%) in 17 other countries. Five countries – Azerbaijan (12.8%), Brunei (16.7%), Macao (41.7%), Papua New Guinea (13.5%) and Singapore (15%) – were running high current account surpluses and least developed countries (LDCs) and island economies like Bhutan, Cambodia and Laos had high current account deficits. Trends in gross fixed capital formation presented mixed results as 11 countries showed gradual improvement and 13 experienced declines. What it all implied was that economies were growing but the macroeconomic environment could be destabilizing unless precautionary steps were undertaken.

Before the economies could consolidate their gains and start unleashing their growth potential, the outbreak of Covid-19 devastated their sources of growth and impaired the development process. Although the pandemic has created enormous uncertainty and loss of confidence in all major economies in the world, the policy prescriptions that we initially worked out as growth triggers for the countries in the Asia-Pacific region will not change. In fact, the two suggested sources of growth – quality infrastructure and the digital economy – will become more effective as a fiscal stimulus to ailing economies in view of the pandemic than growth triggers in normal times.

This article discusses the importance of these sources of growth regardless of whether the countries in the Asia-Pacific region have been undergoing a crisis or not.

Policy Choices: Orthodoxy Versus New Paradigms

The Asia-Pacific region has experienced spectacular economic development in the last two decades. Anchored by export-oriented growth and industrialization in East Asian economies and China, and remarkable economic performances and resilience by Japan, India and other countries, the region has been viewed as the “growth engine” for the world. Although most of the economies have slowed

down in recent years, the region has continued to attract global attention for trade, FDI flows and market expansion. Perhaps the growth engine logic applies strongly to the Asia-Pacific region more because of the untapped potential than for current or past performance. In fact, countries with relatively large domestic markets and large populations, including India, China and Indonesia, have been contributing significantly to global rebalancing of aggregate demand in view of the prolonged recession in the United States and European Union since the global financial crisis in 2008-2009. This characterization of Asia, if not the Asia-Pacific as such, provided countries with several policy choices that were rooted in the ambition of achieving and sustaining global growth in domestic economies and benefitting from the surge in global trade and investment flows to Asia. This realization was observed long before the Covid-19 pandemic as countries expressed their policy intentions and priorities in the post-recession period after the global financial crisis.

Before relating the growth engine hypothesis and associated choice of economic policies as solutions in the Covid-19 economic packages, it is imperative to highlight the potential synergies that have accrued (or would accrue) to Asia-Pacific economies. In a textbook set-up, policy makers end up choosing between two broad categories of policy solutions to provide momentum to the process of economic development – orthodoxy versus new paradigms. In general, orthodoxy provides a rich treasure of knowledge and policy tools employed in repeated experiments in the past. Be it neo-classical, Keynesian or post-Keynesian, economists often differ in terms of ordering of priorities and consequent sequencing of policy measures. For instance, a demand side approach would consist of expansionary or contractionary monetary and fiscal policies. In the case of an expansionary fiscal policy, aggregate demand can be stepped up through fiscal stimulus and public investment programmes. The reverse would follow in the case of contractionary fiscal policies. This is essentially a choice between a set of pro-cyclical and counter-cyclical macroeconomic policies. Different vintages of these policies have been adopted worldwide, as in Asia-Pacific countries.

Likewise, external sector policies have undergone radical shifts over time. From the mid-1980s through the 1990s trade liberalization was pursued across the world. Following this wave of trade liberalization, countries liberalized their FDI policies and oriented production in order to promote exports. In the Asia-Pacific region, East Asian economies such as Thailand, Indonesia, Malaysia, Singapore, Taiwan and others embraced external sector liberalization

as an overriding economic paradigm. Before the East Asian Financial Crisis in 1997 all countries in East Asia cherished open trade and financial integration yielding significant growth dividends. It was only in the post-crisis period a few years later that the affected economies recognized the need for structural reforms in domestic economies before embarking on full-fledged external sector openness.

Related to the globalization-inspired national economic policies since the late 1990s and 2000s, equal stress was placed on nurturing the virtuous rise of a market economy. Protagonists of a market economy claim that state-controlled economies lead to inefficiency and vested interests after a point, as resource allocation and economic freedom in the hands of private economic agents remain suppressed. Our aim here is not to engage in a debate on state versus market – the economic outcome of both models could be disastrous if things get out of proportion. However, a middle path which is often followed by development banks and project financiers underscores that as both governments and markets fail, a greater space for public-private partnership may provide efficient solutions.

The policy choices and their different combinations that economies typically opt for in normal times as well as in crises are influenced by various schools of thought in which policy actions and outcomes are derived from a normative characterization of the underlying process through which policy instruments operate. For instance, export-oriented industrialization *ex ante* predicts a sustained rise in exports, healthy flows of FDI, higher employment generation, upscaling of technological frontiers and improved participation in global value chains. The predictions of this paradigm have delivered well for many economies of the world. But its combination with privatization and liberalization policies, as per the Washington Consensus, did not work efficiently in Latin American countries, including Brazil and Argentina.

Unlike these value-loaded policy choices, new paradigms are not necessarily identified by any particular ideologies or worldview. Instead of binary choices, these new ideas for economic development such as infrastructure development, digital economy and financial inclusion are sectoral and low-profile in nature. Unlike the orthodox policies which have the potential for systemic collapse, the failures of new paradigms can be absorbed within the economy without blowing up to crisis proportions. The strength of the new paradigms is that they act more as growth triggers than indicators of growth itself. The utility of quality infrastructure is not an end in itself; rather, it is the means through which several outcomes can be achieved.

Likewise, digital economy is a wave that has transformed the nature and process of production, consumption and trade in goods and services. Not an economic ideology itself as such, but digital technologies have the potential to generate outcomes attributed to orthodox paradigms. Investment in human capital, the rise of artificial intelligence (AI), big data and block chain are all part of the new paradigms. By that logic, quality infrastructure and digital economy are two important growth triggers for the Asia-Pacific region in the sense that they could have a more long-term and diversified impact on not only the demand side of the economy but also the supply side, and thus raise growth potential equally effectively in both normal times and crises, such as the Covid-19

pandemic. In fact, the prolonged crisis period associated with the pandemic requires fiscal stimulus; both investment in infrastructure and digital economy are undisputed choices in that sense.

Leveraging Digital Economy & Quality Infrastructure

Quality infrastructure and digital economy are not two distinct subjects but nest within each other. Digital economy which is enabled by modern information and communication (ICT) infrastructure is an integral component of quality infrastructure. Both sectors possess tremendous potential for investment, employment generation, and above all assets for future generations. Investment in infrastructure has been an instrument of fiscal stimulus packages all over the world. So post-Covid-19 economic recovery would depend on some sort of public spending to generate demand in the economy and subsequently focus private investment into infrastructure development.

Digital economy, on the other hand, is a growing sector which includes applications in manufacturing and banking, financial services, fintech and other service sectors. Digital connectivity unleashes the potential for fintech, e-commerce and IT-enabled service sectors in significant proportions. Both areas need to be compatible with sustainable development goals (SDGs) as quality infrastructure essentially envisages sustainability and durability.

Moreover, investment in physical, social and digital infrastructure contributes to economic corridor development. Economic corridors are being viewed as an integrated spatial approach for balanced regional development (*Indo-Pacific Cooperation from the Indian Perspective*, by Sachin Chaturvedi & Priyadarshi Dash, *Japan SPOTLIGHT* Jan./Feb. 2019 issue). Creating social infrastructure through formal education, training and skill development programs will help build future generations in the Asia-Pacific region for Industry 4.0, while cooperation among Asia-Pacific countries in technology development and sharing of knowledge and expertise will address the limits of national capabilities and bring synergy.

Table 1 illustrates the extent of financing gaps in different infrastructure sectors worldwide. For Asia the current investment in infrastructure is 4% of GDP which is the highest among different regions of the world after Africa (4.3%), but still the region faces a shortage of financing to the magnitude of 0.4% of GDP. And to meet the SDGs the additional financial resources required are estimated to be 0.3% of GDP in the period 2016-2040. Likewise, Oceania, part of which is in the Asia-Pacific region, would need additional investment of 0.3% of GDP to close the infrastructure financing gap. Interestingly, despite so much funding in basic connectivity infrastructure and utilities in the past, the financing gaps in the road and electricity sectors are to the extent of 0.3% and 0.1% of GDP respectively. This implies that there are pockets of underutilization of resources due to deficiencies in infrastructure stock. Roads that connect centers of economic activity could generate fresh impetus for countries where these investments would happen. Electricity is not only an essential source of energy and household well-being; it is the critical input for digital economy. So, in that sense, investment in infrastructure and digital economy objectives can be intertwined with

TABLE 1

Estimates of infrastructure investment gaps (2016-2040) (% of GDP)

Region/Sector	Current Trends	Investment Need	Financing Gap	SDGs (Additional Need)
Sector				
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	-
Region				
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	-

Source: Oxford Economics and Global Infrastructure Hub (2017)

national economic policy priorities. The spillover effects generated by focusing on infrastructure development and promoting digital economy are real sources of growth in the Asia-Pacific region.

The sources of growth and activity untapped in infrastructure sectors are clearly demonstrated in Table 2. The need for new infrastructure building and maintenance of existing infrastructure in low- and middle-income countries in different sectors reveals interesting trends. For instance, total capital spending (fresh investments) in infrastructure sectors over the period 2015-2030 could be to the tune of 4.5% of GDP and US\$1.55 trillion. Of those, electricity and transport, the core sectors of basic infrastructure, need the most: 2.2% of GDP (\$780 billion) and 1.3% of GDP (\$420 billion). As far as maintenance spending is concerned, the transport sector needs the most, at 1.3% of GDP (\$460 billion). These numbers decipher an important finding that economies in low- and middle-income countries which are typically assumed as economies

TABLE 2

Infrastructure spending needs in low- & middle-income countries between 2015 & 2030

Sector	Share of GDP (%)		\$ Billion	
	Capital	Maintenance	Capital	Maintenance
Electricity	2.2	0.6	780	210
Transport	1.3	1.3	420	460
Water & Sanitation	0.5	0.7	200	70
Flood Protection	0.3	0.1	100	20
Irrigation	0.1	-	50	-
Total	4.5	2.7	1550	760

Source: "Beyond the Gap: How Countries Can Afford the Infrastructure They Need while Protecting the Planet", Julie Rosenberg and Marianne Fay (eds), Sustainable Infrastructure Series, World Bank (2019)

TABLE 3

SDG Target 9.a.1: total official international support for infrastructure (2018 \$ million)

Sub-Region	2000	2018
Central & West Asia	1,213.4	4,467.2
East Asia	2,478.0	2,872.9
South Asia	4,009.0	10,826.0
Southeast Asia	3,457.8	6,141.2
The Pacific	259.0	738.6

Source: ADB (2020). Key indicators for Asia and the Pacific, September.

operating at "less than full-employment" in a Keynesian framework can optimize resource allocation and generate efficiency by investing in infrastructure. If digital economy is juxtaposed on it, then the net effect would be substantially larger in terms of additional output and income generated.

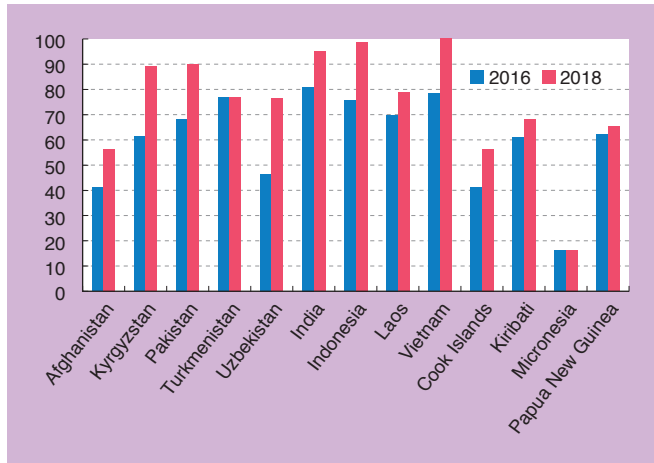
The critical role of infrastructure for economic growth can be judged from the official international support for infrastructure development in different parts of Asia and the Pacific. Total official support in the form of aid and other assistance for infrastructure has multiplied over the years. During 2000-2018, official assistance to Central Asia and West Asia, South Asia and the Pacific increased by 3.7 times, 2.7 times and 2.9 times respectively. For East Asia and Southeast Asia it was around 1.2 times and 1.8 times over the same period (Table 3). Investment in infrastructure, particularly quality infrastructure, needs to assume topmost policy priority in order to activate economic activity connecting the growth centers and the less developed parts of the region. The spread of digital infrastructure including mobile networks is the biggest asset for the low- and middle-income countries as several social objectives including financial inclusion, women empowerment, and digital literacy among farmers, can be achieved through enhanced communication and connectivity through mobile phones. Moreover, a mobile network is the primary input for digital economy to succeed as the whole range of ICT and fintech solutions can reach users through mobile connections.

As Chart 1 depicts, the proportion of population covered by 3G mobile networks is growing rapidly across countries. It shows that most of the countries which have experienced less than 70% 3G coverage in 2016 have experienced a considerable rise in the spread of mobile telephony in a period of two years. It indicates the healthy signs of the growth of digital economy in the Asia-Pacific region. At the same time, the number of people using mobile telephony for financial transactions, for purchases of goods and services, for utility payments, and for e-commerce is also growing at a much faster rate in developing Asia and the Pacific. This digital revolution is going to transform the economies in a massive way, generating growth triggers across sectors. However, this does not mean that the benefits of digital economy should be allowed to undermine the importance of cyber security and the regulatory risks involved in widespread adoption of digitalization.

The digital economy enabled by AI, block chain, the Internet of Things, Distributed Ledger Technology, and big data is growing worldwide. A United Nations Conference on Trade and Development

CHART 1

SDG Target 9.c.1b: proportion of population covered by 3G mobile networks



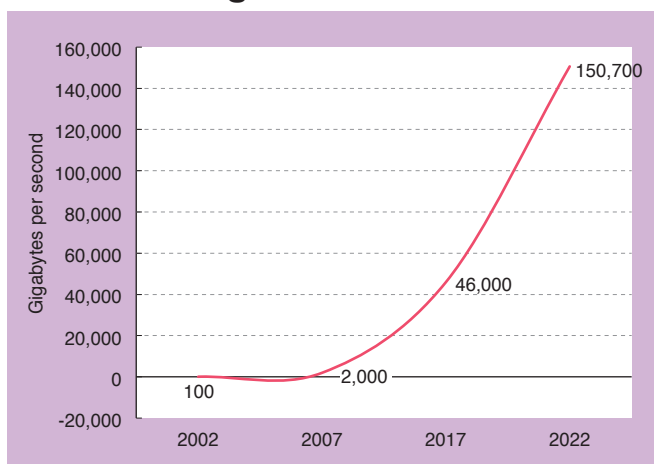
Source: Compiled by the author based on data from ADB (2020). Key indicators for Asia and the Pacific, September.

(UNCTAD) report of 2019 observes that the digital economy needs unconventional economic thinking and policies in view of growing service orientation in the economies, difficulties enforcing national laws and regulations on cross-border trade in digital services, local value creation and structural transformation brought about by digitalization. The depth and spread of digital economy can be judged from global Internet traffic. *Chart 2* presents the data on how fast the Internet is reaching the people of the world. For instance, in the 10-year period from 2007 to 2017, the Internet speed increased extraordinarily from 2,000 gigabytes per second to 46,000 GB. By 2022, it is expected to reach 150,700 GB per second, marking more than a three-fold rise in a span of five years.

While digital economy is embraced by all countries, the 2019 G20 Summit in Osaka pushed the idea of the free flow of data as the building block for development of digital economy. Likewise, India has raised concerns over taxation of digital services traded cross-

CHART 2

Evolution of global internet traffic



Source: Compiled by the author based on data from UNCTAD (2019), Digital Economy Report

border and the moratorium on custom duties. These ideas floated by countries and currently debated in different forums signal a healthy move towards standardization and regulatory coordination for the orderly growth of digital economy. Data is the power of digital economy, and thus its economic use, optimum use and misuse are some of the policy challenges that are associated with digital economy. From that perspective, “data value chains” could generate substantive business gains for firms (“Measuring the Economic Value of Data and Cross-Border Data Flows: A Business Perspective” by David Nguyen and Marta Paczos, *OECD Digital Economy Papers, No. 297, 2020*). Policies on digital economy vary across the Asia-Pacific region yielding different outcomes. A comparative study of Malaysia, Thailand and Vietnam suggests a diversity of policy measures and the ordering of priorities with respect to digital economy development in the region. In general, three approaches – government versus private sector leadership, top-down versus bottom-up, and innovation versus regulation – determine the pace of digital economy in countries. Those in the Asia-Pacific region have adopted various policies towards data privacy and cyber security for developing digital economy which would form the backbone of economic growth in the region.

Conclusion

Sustaining high, inclusive and sustainable economic growth is as important as achieving it. Several economies in the Asia-Pacific region have often lost growth momentum for reasons such as structural rigidities and poor policy priorities. For instance, infrastructure development is an all-weather priority for low- and middle-income countries as it acts as a fiscal stimulus. The economic recovery packages of regional economies have various components of investment in infrastructure including digital infrastructure. Digital economy is a safe policy choice as no collateral damage occurs in the event of any unintended disruptions in resource allocations to these sectors. The Asia-Pacific region has witnessed growth and possesses further scope for diversification. Quality infrastructure and digital economy could pave the way for a sustained growth path for these economies. Quality infrastructure would result in economic corridor development, and integrate growth engines with remote parts of the region efficiently. Likewise, digital economy requires a calibrated approach involving building digital infrastructure and enhancing the efficiency of service sectors, especially banking, fintech and travel. Several countries have embarked upon digital economy as the future of economic growth in the region. Along with the benefits of digital economy come the risks of cyber security, regulatory challenges such as privacy protection, and particularly national regulations with respect to trade in digital services. These gaps need to be addressed to reap the benefits of digital economy for socio-economic development in the Asia-Pacific region.

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