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Looking Beyond Averages
**ABOUT DEVELOPMENT DIGEST**

The Development Digest is a half-yearly publication that features key works from teams based at the World Bank Group Global Knowledge and Research Hub (the Hub) in Malaysia.


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Much has changed in Malaysia since our April edition of the Development Digest. The country has entered into new beginnings with the advent of a new administration, the first time in all its 60 years of nationhood. But in the midst of these changes, an unchanging narrative of Malaysia is the country’s unwavering progress in development. The country remains steady on its journey to become a high-income and developed nation.

Our role as a Global Knowledge and Research Hub is to partner with Malaysia in delivering on these ambitions.

We do this through our partnerships with the government and local institutions. We have been working together to build engagements and platforms to facilitate the process of learning together by joining local and global expertise.
The Development Digest aims to encapsulate this work by showcasing both the work arising from the Hub to share the Malaysia development experience, and our research outputs.

We begin our fifth edition with an article on why it’s important to look beyond averages when it comes to the country’s development, followed by a look at the region’s success in the face of global uncertainty. We also bring up pertinent issues on how inclusiveness can come about in a new Malaysia, the role of the digital economy as a new driver of development, and the future of work with automation on the horizon. Other articles include the issue of financial integration in the region, the use of Islamic finance toward sustainability, development financial institutions, budgeting for performance in Malaysia, and fighting HIV through harm reduction programs in the country.

This collection of articles provides an insightful glimpse at the diverse work arising from the Hub. We hope you have a great read!
Over three months ago, I arrived in Kuala Lumpur to join the World Bank Group’s Global Knowledge and Research Hub as the new Country Manager for Malaysia. I flew in from Kuwait after spending three years in the Gulf Cooperation Council region, energized about the prospect of supporting the development priorities of Malaysia Baru or New Malaysia.

As a native of a Middle Eastern country – Jordan - I had always marveled at Malaysia’s modern development story. The country successfully navigated the challenges of post-independence bringing together its heterogenous states and society, modernized its governance arrangements yet preserved certain traditions, diversified its economy, eradicated poverty, and built up its infrastructure and human capital. It also witnessed a peaceful and stable democratic transition earlier this year after six decades of one-party rule, which is a testament to the resilience of Malaysian institutions.

My enthusiasm for moving to Kuala Lumpur was also shaped by the depth of the development partnership between the Malaysian government and the World Bank Group. The World Bank’s ‘Hub’ in Malaysia, supported by the Ministry of Finance, Bank Negara Malaysia, and the Economic Planning Unit, signifies the strength of this partnership and its development ambitions. The Hub serves as a platform for South-South knowledge-sharing, promoting cutting-edge economic research with global impact, and supporting the Malaysian government’s reform agenda through Reimbursable Advisory Services.

What struck me the most in recent months is the Hub’s vast network of collaborating institutions and its groundbreaking innovations. Internally, the network includes numerous ministries and government authorities (e.g. Ministry of Trade and Industry, Ministry of Communications and Multimedia, Ministry of Agriculture, Securities Commission, Department of Statistics), public sector institutions (e.g. Khazanah Research Institute, Employees Provident Fund), universities (e.g. Universiti Kebangsaan Malaysia, University of Malaya, Sunway University, UNIMAS), associations and institutes (e.g. Malaysian Economic Association, the Malaysian Institute of Accountants), the private sector (Malaysian Association of Money Services Businesses, Lazada,
Facebook) and civil society organizations (e.g. Yayasan Sejahtera and Kechara Soup Kitchen, Malaysia Care Sabah Chapter). On the external side, there is similar breadth and diversity (e.g. UNDP, UNICEF, ASEAN Secretariat, Alliance for Financial Inclusion, and the Asia School of Business).

This rich network of internal and external partners has enabled our Hub teams to operate ‘at the frontier’ of policy innovation and economic research. In collaboration with Bank Negara Malaysia and the Securities Commission, for instance, our Finance, Competitiveness and Innovation Global Practice in the Hub worked on supporting the issuance of the first-ever Green Islamic Bond (‘Green Sukuk’) by the Malaysian private sector. This initiative in 2017 brought together ‘Green Finance’ and ‘Islamic Finance’ for the first time, opened new avenues for the global financing of sustainable investment projects, and incentivized other countries like Indonesia to follow a similar path. Another example involves supporting greater financial inclusion for migrant workers through the Greenback 2.0 Initiative. This effort with Bank Negara Malaysia and the private sector to enable the scaling-up of digital remittance services has significantly improved access to remittance services and lowered the cost of transmitting money from Malaysia to overseas destinations. Fintech is yet another area in which there is original policy work underway.

In the growing area of the ‘digital economy’, it has also been exciting times for our Hub team. A multi-sectoral effort was launched, in cooperation with the Ministry of Finance, to analyze ways to unleash the full potential of the digital economy in Malaysia. This effort adopted a comprehensive approach examining the areas of digital adoption, connectivity, entrepreneurship, and taxation. What has been remarkable is how this large effort has already driven changes in the sector, particularly around the areas of competition, connectivity and financing. Prices of broadband Internet services are coming down, and there is greater movement towards scaling up the implementation of a national broadband strategy and introducing a new tax on digital services. This body of work is the first of its kind in the East Asia and Pacific region and will foster similar assessments in other countries in the region.

A final reward worth mentioning – both on professional and personal grounds - is having the opportunity and privilege to work alongside an outstanding team of dedicated development professionals. This large team is a wonderful mix of international and local staff members as well as a significant number of seconded officials from Malaysian institutions.

I look forward to deepening our fruitful partnership with Malaysia and supporting the country in its quest to achieve inclusive growth and development – on the path towards high-income and developed country status – in the years ahead.

*Adalah menjadi satu penghormatan untuk berkhidmat. Terima Kasih Malaysia!* 

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**Firas Raad**

Country Manager for Malaysia
Malaysia is a remarkable country by many metrics, having been highlighted by the Growth Commission as one of the world’s fastest growing economies. It has transformed itself from a low-income, agriculture-oriented economy, to a modern, trade-oriented one that is on the cusp of reaching high-income status within the next few years.
To most economists, especially those looking from the outside, Malaysia appears to be doing very well. Growth is strong, at 5.9% last year and projected at 5.4% this year. Inflation is low, at just 1.8% in May 2018, and incomes are high, approaching the magic $12,055 threshold that marks an exit from the middle-income status that so many see as a trap.

Yet, during this success, Malaysia has just gone through its first change of government in over sixty years. An intensely fought campaign saw cost of living issues featured prominently, as well as a debate on whether economic growth is really being translated into gains that improve the lives of Malaysians. Talking to ordinary Malaysians, it quickly becomes apparent that there is a large disconnect between what the numbers show and how people feel.

In the June 2018 edition of the Malaysia Economic Monitor, we try to help explain this disconnect and look beyond the averages. What we find is that, while average growth might be robust, there is a growing disparity between Malaysians working in services versus manufacturing. Wages in the manufacturing sector, which is mostly export-oriented, are growing at four times as in services.

Similarly, while average inflation might be low, food and housing costs have been rising at a much faster pace for several years, even more so in urban areas, where they are now a third higher than in 2010. Low-income households spend much more of their income on food and housing, and in fact, the poorest 10% of Malaysians spend two thirds of their income on these two items, which have seen the greatest cost build-up.
Coupled with stagnant wage growth for those outside manufacturing, it then becomes clearer why many Malaysians feel that growth isn’t benefitting them.

**Ensuring that people have greater opportunities to improve their lives, and access to social safety nets to help protect them from shocks, is essential to inclusive growth.**

Malaysia’s historic elections show that change is possible and today, the country has a unique window of opportunity to deepen reforms and to ensure that proceeds of economic growth can be broadened to benefit everyone. While change has brought some uncertainty, Malaysia now has a chance to undertake bold reforms.

We see priorities that include measures to raise the productivity level, strengthen the provision of social assistance for low-income households, and facilitate the achievement of inclusive growth, through policies that level the playing field in access to services and economic opportunities (including measures to increase women’s labor force participation).

**As the country moves closer towards achieving high-income country status, it is important to be aware of the broader aspects of development that are not captured by gross domestic product (GDP) growth such as health, education, and environmental sustainability.**

Navigating this change won’t be easy, but the country now has an opportunity to become known as a nation that is remarkable for not just achieving high rates of economic growth, but for sustainable and inclusive growth that truly benefits all Malaysians.

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The unveiling of Malaysia’s much-anticipated 2019 budget last Friday by Lim Guan Eng, the Minister of Finance, comes at a challenging time for the country. On the external side, Malaysia’s exports are facing growing headwinds – as opposed to the fair winds of recent years – due to heightened trade tensions and slower global growth. On the domestic front, a new emphasis on addressing the stock of government debt and contingent liabilities is likely to narrow fiscal space and prevent public investment from driving economic activity as it did before. In this situation, Malaysia will depend more on private consumption and investment to support economic growth in the next few years.

This year’s budget required a careful balancing act between safeguarding growth, sustaining private sector confidence, promoting fiscal responsibility, managing debt sustainability, and protecting the vulnerable.

In recent years, lower-income households in Malaysia were disproportionately affected by the rising cost of living, propelling the new government to think of ways to improve the effectiveness of the country’s social protection system.
Analyzing Malaysia’s new budget, one sees many encouraging directions. First, efforts to strengthen good governance, fiscal responsibility, and transparency are positive steps forward. Second, better targeting of cash transfers through the new Bantuan Sara Hidup Rakyat (BSH) program to account for household size, and of fuel subsidies, are also steps in the right direction. Third, the new budget’s focus on promoting education, skills, and entrepreneurship is a highly welcome development. This latter priority is critical for Malaysia to compete and thrive in the new digital economy. As indicated by the global Human Capital Index recently launched by the World Bank, Malaysia’s human capital outcomes could be better for its development ambitions, particularly in relation to the quality of education in math and science.

Another positive aspect of the new budget focuses on taxation. The decision to include ‘imported services’ within the scope of the Sales and Services Tax (SST), particularly those related to the digital economy, is a timely initiative and is well-aligned with growing international practice. More can be done over the coming years to further expand the scope of the SST. The move to make the taxation system more progressive by broadening the coverage of individuals and businesses paying income taxes, and by increasing the real property gains tax and stamp duties on premium properties, is also a constructive measure embedded in the budget.

In the area of debt sustainability, however, prudent management of fiscal commitments over the short- and medium-term will be required. Part of these fiscal management responsibilities include the development of an effective mechanism for targeting fuel subsidies. Malaysia will also need to bolster efforts to diversify fiscal revenues. An appreciable narrowing of consumption-based taxation in 2018-2019 and a greater dependence on less-stable oil revenues could constrain fiscal adjustment measures in the future, particularly with unexpected declines in oil prices. It could also encourage the adoption of pro-cyclical fiscal policies.

During his budget speech, Minister Lim Guan Eng declared that “it is not the business of government to be in business”. This policy direction, if pursued, will boost investor confidence and promote pro-competition economic reforms.

While Malaysia’s government-linked companies form an important part of the economy, some of their activities given their market dominance have distorted economic activity and prevented competition – with consumers ending up paying the price. If the heavy lifting of economic growth and job creation in the coming years is going to be shouldered by the private sector, then the public sector getting out of the way is an important first step. The recent and significant improvement in Malaysia’s global Doing Business ranking from 24th to 15th symbolizes this country’s ambition to further enable private-led development. It also reveals Malaysia’s economic potential to compete at the global frontier and become an Asian Tiger.

FIRAS RAAD is World Bank Country Manager for Malaysia.
The East Asia and Pacific (EAP) region has developed to become an engine of growth for the global economy, accounting for more than a third of global GDP growth in 2017. While growth prospects for the region’s continued development remain favorable, countries in the region will have to navigate heightened global uncertainty and headwinds that have emerged in recent months.
The rise of the developing EAP region in the last four decades is the development success story of this generation. The region has transformed from one of low-income and largely agricultural economies to one of middle-income and highly sophisticated economies with growing middle classes. The region now acts as an engine of growth for the global economy, accounting for more than a third of global GDP growth last year.

This success story permeated many of the discussions and events during the recent World Bank-IMF Annual Meetings in Bali, Indonesia. From the high rankings of many East Asian countries in the newly released Human Capital Index, to the substantive discussion around the ‘East Asian Miracle’ and its future, the week served to showcase how far the region has come and its significant potential to achieve even greater success.

While prospects for the region’s continued development remain favorable, EAP countries will have to navigate heightened global uncertainty and headwinds that have emerged in recent months: trade tensions, weakening global trade, tightening financing conditions, bouts of portfolio capital outflows, and pressure on asset markets. Growth among developing countries in EAP has thus far remained resilient in 2018, underpinned by still-strong domestic demand. However, the deteriorating global trade and financing conditions could erode fiscal and financial buffers, and depress medium-term growth prospects, in the absence of sound policy responses.

The slowdown in world trade growth is of particular concern to the region, as East Asia accounts for almost a sixth of global trade. While some may favor protectionist measures to preserve jobs, in many countries, these measures have the unintended consequence of hurting exports and investment as imports of intermediate inputs and capital goods dominate imports.

There is strong evidence that economies and people benefit from more open trade, not less. Trade openness can help reduce costs and prices to consumers, while domestic firms can benefit from more and better intermediate inputs.

To mitigate the potential impact of rising global trade tensions, countries in the region could accelerate their economic integration under the Association of Southeast Asian Nations (ASEAN), and as part of the wider Regional Comprehensive Economic Partnership (RCEP) that is been under negotiation over the last several years. The RCEP, which aims to consolidate ASEAN’s bilateral Free Trade Agreements with Australia, China, India, Japan, New Zealand, and the Republic of South Korea, would be the world’s largest trade bloc, with a population of 3.5 billion people and a GDP of $23.8 trillion. Deeper regional trade integration would therefore provide all participating countries with a large export market, which could mitigate the loss of exports caused by ongoing trade tensions.
Deepening existing agreements to include such areas as public procurement, subsidies, protection of intellectual property, and stronger competition policies could allow greater specialization, and strengthen global and regional value chains. Expanded trade in services could be a strong driver for productivity growth while compensating for slowing global goods trade.

The tightening of global financing conditions, triggered mainly by rises in U.S. interest rates, may continue in the coming months, as signaled by the United States Federal Reserve in its September 26 statement. While EAP countries enjoy stronger economic fundamentals than many other developing countries, rapidly rising U.S. rates can lead to bouts of short-term portfolio capital outflows from the region. This risk is largely beyond the control of countries in the region, but there is a lot that they can do to strengthen the resilience of their economies. Each country in the region can take a hard look at potential sources of erosion of their economic resilience or potential sources of vulnerability and address them promptly. Keeping debt levels and fiscal and current account balances at sustainable levels is important. Addressing financial sector weaknesses, where these apply, will also be essential in reducing risks. And a judicious mix of prudential regulation, exchange rate flexibility, and the build-up of fiscal buffers can help.

Many countries in the region already have flexible exchange rate systems. Continuing this flexibility can dampen the domestic impacts of external shocks, including volatile capital flows.

With risks intensifying, building fiscal buffers and strengthening debt sustainability can also help strengthen resilience.

Refocusing fiscal policy to raise more revenues efficiently and better prioritizing public spending can help to protect stability while sustaining growth and fostering inclusion.

The efforts to collect more revenues and build fiscal buffers are crucial to maintain critical investments in human capital and social protection even when inevitable economic shocks occur. Providing opportunities for quality education, improved health care, and better nutrition helps build human capital. Without it, countries in the region will find it more difficult to sustain growth, prepare their workforce for the highly-skilled jobs of the future, or ensure inclusive development.

For the full report of the Human Capital Project, visit http://bit.ly/hciwb2018

VICTORIA KWAKWA is World Bank Vice President for East Asia and the Pacific Region.
Inclusiveness in the New Malaysia

Kenneth Simler

Malaysia has made significant progress in reducing extreme poverty and as a result, less than 1% of Malaysians live below the national poverty line today. As Malaysia moves up the income ladder, common perception about what a minimally acceptable standard of living should look like will change as well. The current public discourse about cost of living issues, the quality of public services, and other related topics, make it clear that Malaysians are aiming higher and setting their sights on a better quality of life. Malaysia’s journey toward becoming a high-income nation will become more meaningful if all Malaysians are given the opportunity to share in the benefits of prosperity.
Since 1992, October 17 has been recognized as the International Day for the Eradication of Poverty, or more simply, End Poverty Day. It is a day for the world to engage on the progress made and actions needed to end poverty.

To mark this year’s End Poverty Day, the World Bank has released its biennial Poverty and Shared Prosperity Report “Piecing Together the Poverty Puzzle”, which documents the dramatic reduction in extreme poverty achieved from 1990 to 2015. In the span of 25 years, the share of people around the world living in extreme poverty line fell from 36% to 10% (from 1.9 billion to 736 million), despite the global population growing from 5 to 7 billion.

The World Bank estimates that the global poverty rate has declined to 8.6% in 2018, surpassing the 2020 interim target of 9%, on the way to the goal of 3% by 2030. Despite this progress, the outlook for 2030 is still uncertain. The recent gains notwithstanding, the rate of poverty reduction at a global level has slowed in recent years.

Poverty has become increasingly concentrated in Sub-Saharan Africa and in fragile and conflict areas, which together account for more than half of the world’s extremely poor people. Reaching the global goal of 3% by 2030 hinges critically on several factors, namely rapid and inclusive economic growth, strengthened governance, health and education investments, and increased productivity.

Malaysia has made outstanding progress in reducing extreme monetary poverty. In 1970, almost half of Malaysian households lived below the national poverty line, which is almost double the international extreme poverty line – at approximately RM100 per person per month. Today less than 1% do. Using the higher threshold of the median national poverty line used in upper-middle-income countries (approximately RM292 per person per month), Malaysia’s poverty rate has declined from 17% in 2008 to 2.7% in 2015.

As countries become richer, social norms about what constitutes a minimally acceptable standard of living will change as well.

These shifting expectations apply not only to income security, but also to access to affordable services and amenities that safeguard an individual’s dignity as a fully functioning member of society. Current public discourse about the cost of living, the quality of public services, and related topics are clear evidence that Malaysians are aiming higher and setting their sights on a better quality of life.
Against the high-income and developed country standards that Malaysia aspires to achieve, existing gaps and vulnerabilities cannot be easily dismissed as isolated cases. As just one example, a study by Malaysia’s Institute for Public Health in 2016 found that 20.7% of Malaysian children are nutritionally stunted. Equally important, significant rates of stunting were found in cities as well as rural areas, and across all states, all ethnicities, and all levels of income and maternal education.

**Going forward, social policies and interventions could be made more effective by tailoring them better to people’s living conditions.**

One case in point is the Cost of Living Aid (BSH) cash transfer program. Its impact and cost-efficiency could surpass the effectiveness of past programs, by adjusting eligibility criteria and benefit levels to account for household size and composition, as well as differences in the cost of living by state and urban or rural areas.

Much has been made about Malaysia’s transition towards becoming a high-income country. The journey will become more meaningful if all Malaysians are given the opportunity to share in the monetary and non-monetary benefits of this prosperity. Malaysia is well-poised to grow a larger and more resilient middle class, which itself can be an engine of future growth, and a champion for better governance and increased accountability. This commitment to inclusiveness in the new Malaysia – and to tackling prevailing gaps and vulnerabilities – will eradicate poverty and improve the standards of living for all Malaysians.


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Over the years, Malaysia has demonstrated great improvements in enhancing upward social mobility, as the country continues to advance toward becoming a developed nation. However, this success has not been evenly distributed among the population. A 2016 Khazanah Research Institute study found that 24% of children born to low-skilled parents in Malaysia remained low-skilled as adults. Likewise, 46% of children born to parents in the bottom 40% of the national income distribution remained in the bottom 40%.

As such, one important factor that can potentially contribute to improving socioeconomic standing is access to transportation. Transportation facilitates day-to-day activities such as getting to jobs, schools, and healthcare facilities among others. Having a good public transportation system in place in urban areas is especially important, as Malaysia is 75% urban and becoming more so. Without reliable transportation, low-income urban households are at a disadvantage in accessing a wider range of opportunities, which could potentially hinder them from moving up the socioeconomic ladder.
In the bustling city of Kuala Lumpur, public transit serves as a viable solution for low-income households to reduce limitations in physical mobility. To better understand whether urban low-income communities in Kuala Lumpur have adequate access to public transportation, we randomly selected 30 public housing units and used a 15- and 30-minute walking distance as the benchmarks for proximity to public buses and rail lines. This walking distance was simulated with ArcGIS software using coordinates from Google Maps. One caveat of this measurement is that it may not be safe to walk, which cannot be measured through a preliminary spatial examination.

The bus stops above represent the bus stops within close proximity to the public housing units that have been randomly selected. These do not represent the full bus network in Kuala Lumpur.

A preliminary spatial analysis of access to public transit from low-cost public housing in Kuala Lumpur is encouraging. Our findings include:

- All 30 of the randomly-selected public housing units are within a 15-minute walking distance to public bus services.
- Seventeen public housing units are within a 15-minute walking distance to a Mass Rapid Transit (MRT), Light Rail Transit (LRT), Monorail, and/or Malayan Railway (KTM) station. Eight of the remaining 13 public housing units are within a 30-minute walking distance to one or more of these train lines.
• Five of the 30 public housing units do not have any rail stations within a 30-minute walking distance but are within a 15-minute walking distance to a bus stop.

These preliminary findings bring us to two important points:

1. Urban low-income residents in Kuala Lumpur may be benefiting from the public transportation network, given that public buses and train lines are placed within close vicinity of public housing areas. However, this study only focuses on assessing the proximity of public transportation to low-cost public housing units in Malaysia’s capital. As such, more research should be conducted in Kuala Lumpur and other cities to examine the access of poorer communities to public transportation for inclusive development in Malaysia. Further analysis could also potentially include using Big Data Analytics to simulate travel times by public transit from all neighborhoods to the city’s key job centers, traditional markets, training centers, public hospitals, and top schools to help pinpoint areas that are presently under-served by the public transport network (as is currently being done by a World Bank team using Google Maps data for Jakarta).

2. Even though the randomly-selected public housing units in Kuala Lumpur are all within a 15-minute walking distance to the nearest form of public transportation, true access also requires affordability. In 2017, transportation was one of the main contributing factors to the rising cost of living in Malaysia. This has hit poorer populations the hardest as transportation is often a big household expense. The preliminary analysis here only addresses the physical distance of low-cost public housing units to bus stops and transit lines. Further research needs to be done on the affordability of public transportation fares for urban low-income Malaysians, to ensure that they can reap the benefits of public transportation for upward mobility.

Better planning to connect public housing areas to accessible and reliable public transportation is vital to ensure that the urban poor have greater access to socioeconomic opportunities. As Malaysia sets its sights on becoming a developed and inclusive nation, this needs to be put at the forefront of urban development priorities. Better access to public transportation for urban poor communities could be a big step towards inclusive growth.

For the Bahasa Malaysia version of this article, visit http://bit.ly/urbanpovblogbmws

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Can digital technologies transform Malaysia the way microelectronics revolutionized the country fifty years ago? The founding of the Penang Free Trade Zone in 1969, the auspicious visit of Intel CEO Andy Grove, and the subsequent establishment of Intel Malaysia in 1972, are credited with transforming a plantation economy into a global manufacturing hub in the electrical and electronics (E&E) industry. In 2018, E&E accounts for some 38% of Malaysia’s exports and provides close to 800,000 jobs.
Some of the ingredients that propelled the success of E&E are in place for a similar transformation of the digital economy. In 2016, Malaysia became the first country in the world to establish a Digital Free Trade Zone (DFTZ), a special trade zone that promotes the growth of e-commerce by providing a state-of-the-art platform for small and medium enterprises. Jack Ma, CEO of Alibaba, the largest e-commerce company in the world, has committed major investments to the DFTZ.

Three interrelated issues – digital connectivity, digital entrepreneurship, and taxation of digital platforms – are closely aligned with Malaysia’s goal of becoming the information and communications technology (ICT) and e-commerce hub of the region. Firstly; ubiquitous, reliable, and ultrafast broadband Internet service is key. Policy objectives for Malaysia’s digital infrastructure include enhancing the quality and affordability of broadband services and improving access to ultrafast fixed broadband networks. Secondly; government initiatives have generated great enthusiasm for entrepreneurship. But digital entrepreneurship in Malaysia is constrained by shortages of human and financial capital. Thirdly; Malaysia will need to take measures that will safeguard future tax revenues from the digital economy to improve public services and reinvest in areas that the economy needs most. Although Malaysia faces considerable challenges with regards to growing its digital economy, its past performance justifies considerable optimism.

Malaysia’s remarkable transition from low-income to upper-middle-income status has occurred in parallel to the microelectronics revolution. Growth in GDP averaged 6.3% per year during 1960-2016. Malaysia’s early growth was driven largely by factor accumulation. Strong domestic and external demand, supported by favorable demographic dynamics, contributed to a 3% annual increase in employment and a 7.9% annual increase in the capital stock during 1960-2016. Increasing productivity has become more important since Malaysia’s structural transformation in the 1970s and 1980s, but capital accumulation still accounted for most growth.

However, factor accumulation and productivity growth have declined in recent decades, punctured by various financial crises. Diminishing returns to labor have also contributed to a growing sense that economic growth does not result in meaningful improvements in living standards.

The adoption of digital technologies across the public and private sectors, in manufacturing, in services, and in agriculture, will be essential to enable the growth in productivity that Malaysia needs for broad-based improvements to living standards.

By leveraging the Internet, smartphones, big data, the Internet of Things, artificial intelligence, and other digital technologies, Malaysia can increase productivity, spur innovation, and improve
livelihoods. Digital technologies can drive Malaysia’s economic growth by promoting inclusion, lowering costs and increasing efficiency, and encouraging innovation and scale economies.

Digital Trends and the State of the Digital Economy

Most of Malaysia’s citizens are connected to the Internet, and there is more than one mobile cellular subscription for each individual. These positive trends are mitigated by relatively-low adoption by businesses and poor fixed broadband quality.

From 2010 to 2016, the digital economy grew by 9% per year in value-added terms. E-commerce is growing particularly quickly, and is expected to exceed RM110 billion in 2020 or nearly 40% of the digital economy.

Malaysia’s large export-oriented firms are adopting e-commerce at higher rates than SMEs. Improving access to affordable, reliable, and high-speed fixed broadband will help SMEs compete with them.

The government has also launched numerous initiatives to support the digital economy, including the world’s first DFTZ, grant programs, and accelerators for digital entrepreneurs.

Access to the Internet by businesses tripled during 2010–2015, but digital technologies have not yet made a commensurate impact on business practices. Every sector of the economy saw progress, but despite improved access, Malaysian businesses have adopted associated technologies less readily than in comparator countries. Malaysia also has less international Internet bandwidth, fewer businesses with websites, and fewer secure servers than income alone would predict.

Much of the digital economy continues to be dominated by large firms, despite programs to encourage adoption and innovation by SMEs. Business establishments engaged in e-commerce tend to be much bigger than average. Establishments engaged in e-commerce have greater assets, more employees, and higher revenues than average. Similarly, establishments owned by women and SMEs are less likely than the average business establishment to access and use the Internet.

To increase the benefits and reduce the risks of the growing digital economy, the government needs to eliminate barriers to digital adoption, especially by increasing access to inexpensive, reliable, and high-speed Internet, and encourage entrepreneurship, particularly among SMEs and women-owned businesses. The government also needs to ensure it collects enough revenue, in a manner that does not disadvantage domestic companies, to adequately fund the infrastructure, financing, and educational programs that sparked – and will sustain – growth in the digital economy.
The Three Key Drivers

In terms of digital connectivity, while nearly 80% of the population is online, Malaysia lags in the coverage and adoption of fixed broadband services. Malaysia also has slower download speeds and higher prices than most advanced economies. This is a key barrier to deep adoption of digital technologies, especially by businesses.

High prices, low coverage, and limited ambitions for fixed broadband in Malaysia are driven by a lack of market competition. Meanwhile, national policies and diverse state-level arrangements for network deployment have prevented new competitors from emerging.

More aggressive application of existing regulations would increase the efficiency of the existing fixed broadband infrastructure and drive down costs for consumers. The guidelines on dominance and lessening of competition need to be updated to provide for remedies that could be imposed once an anticompetitive practice is proven.

The government needs to attract more private capital to multiply public investments, close coverage gaps, and set the stage for delivery of ultrafast broadband services at speeds of over 100 Mbps. To this end, the government should consider crowding-in private investment and easing the creation of new network infrastructure through streamlined rules and regulations.

About one-fifth of the population is engaged in some form of early-stage entrepreneurship activity, being motivated by opportunity far more than by necessity. The Malaysia Digital Economy Corporation (MDEC), Cradle, and the Malaysian Global Innovation and Creativity Center (MaGIC) stand out among the 6 ministries and 12 agencies that support entrepreneurship in some way.

However, Malaysia's education system and workforce training programs are not preparing enough workers with the right skills to meet the digital economy’s increasing demands. This is compounded by the emigration of Malaysia's most educated and skilled citizens. As a result, employers consistently report a gap between the knowledge, skills, and attitudes of available labor and what the workplace requires.
Meanwhile, more than half of firms ranked access to capital as a moderate to very severe problem. Malaysia hosts few private sector venture capital firms, leaving firms to rely largely on funding from Singapore or the United States when they graduate from seed-stage funding provided by the government. This undermines the local market and deprives entrepreneurs of the expertise that typically comes with venture capital.

The fast growth of the digital economy has occurred in parallel to or with limited taxation of the sector. Malaysia’s government will need to consider balancing the need to provide a supportive investment climate for the digital economy, with the need for fair and equitable taxation in order to support necessary public investments in physical and human capital.

However, identifying who has the right to tax – and who owes the tax – is challenging even when the economic activity is obvious. This is especially true when the ultimate supplier is nonresident – that is, residing outside the country – or a virtual provider – such as a digital platform that supplies content without human intervention.

The easiest and least controversial option is improving the legal framework for indirect taxes by adopting an indirect charge and requiring suppliers to account for digital transactions. Further options include establishing in domestic law the authority to levy an income tax on nonresident suppliers and establishing a freestanding tax on foreign suppliers of digital services that is explicitly not part of the income tax code. Regardless, the government needs to develop an implementation strategy to register companies, communicate rules, and monitor compliance.

**Unlocking the New Development Driver**

Deep digital adoption by the Malaysia’s population provides the foundation for the takeoff of the digital economy. Malaysians have also shown impressive entrepreneurial talent, producing some of Southeast Asia’s most recognizable digital startups. Unlocking Malaysia’s digital economy as the new driver of development will require a coordinated approach involving multiple branches of the public administration, guided by a common vision of a dynamic and equitable economy that matches advanced technology with skilled workers in a context of predictable regulations, transparent public institutions, and competitive markets.


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The digital economy is considered as the key driver of innovation, growth and development in Malaysia and an important prerequisite for the Fourth Industrial Revolution. Towards this end, five areas have been outlined as catalysts to spearhead Malaysia’s movement toward becoming a global player in the digital economy.

These areas include Big Data Analytics, cloud computing, e-Commerce, Internet of Things (IoT) and artificial intelligence (AI). The emergence of mobile technologies, along with fast connectivity and disruptive technologies, is transforming the way we work and live. Leveraging on these provides us the opportunities to become more efficient and productive.

In this regard, the DFTZ is an example of a platform that can greatly benefit online sellers and entrepreneurs. This facilitates entry of SMEs into the e-commerce market by simplifying existing regulations, reducing barriers, and providing support. As of September
2018, about 3,800 SMEs joined the DFTZ to increase their e-commerce capabilities and expand their market access through promotions and campaigns.

To increase ICT adoption, the government is committed to reducing the price of Internet connectivity while ensuring higher speeds and better quality of services, which in turn will enhance the competitiveness of this subsector. The government is also accelerating the implementation of e-payment gateways in the public sector.

The future of the Malaysian economy should be strategically embedded in, and driven by, the digital economy. Many policies have been already put in place, but there is always room for improvement. This brings us to the question about the relevant kinds of public policies that we need to champion as we progress.

First and foremost, we need to develop Malaysian talent to be future-ready. We need to look into the current syllabus being taught at primary and secondary schools, as well as at tertiary levels. This should also include training the current workforce to be re-skilled and upscaled to be capable to work in a digital world. Any mismatch between talent supply and work expectations will only make things counterproductive.

Next, the central position of an ecosystem mindset and a cohesive action plan for the digital world is key. Working in silos is no longer relevant. As in many other industries, a holistic and interconnected ecosystem will add value, reduce wastage and leakage, and will improve efficiency. This may sound easy and straightforward, but this has proven to be the most difficult task and key performance indicator to achieve.

The development of an efficient ecosystem in the digital world begins from the need to work together and reinforce one another. We need to consider the various aspects of the digital economy, including talent development, education, taxation, employment, cybersecurity, e-commerce activities, start-ups, funding requirements, and also the DFTZ.

In terms of public policy for research and development (R&D) in the digital space, there are many investment activities that have become digital-based economies in Malaysia. Most of these investments are, however, channeled into the manufacturing aspects of digital economy development.

We are cognizant of the fact that the manufacturing of digital economy infrastructure – be it software or hardware – is essential. However, we need to be more ambitious to bring about more activities and initiatives on R&D. This will be beneficial for Malaysian talent; and the value-added benefits that we can expect and extract from R&D activities are multi-fold.

This has been the trade secret behind the great success of the Silicon Valley. The Silicon
Valley has become the world’s center of digital innovation due to its extensive and intensive R&D initiatives. This small portion of land running from San Jose to San Francisco is home to three of the world’s most valuable companies.

As such, my personal message to all stakeholders spearheading digital economy transformation in Malaysia: it is true that Malaysia is currently classified as one of the ‘adopters’ vis-à-vis the ‘frontrunners’ and ‘laggards’ as per the World Bank’s Digital Adoption Index (DAI) which reflects accessibility and usage of digital services by consumers, businesses, and the government. However, Malaysia must aspire to be become a frontrunner of the digital economy to fully unlock the economic benefits.

The good news is that, according to Bank Negara’s paper on “Unlocking Malaysia’s Digital Future: Opportunities, Challenges and Policy Responses”, if Malaysia could transition her economy to ‘frontrunner’ status – in the same league as the United States, Estonia, Republic of South Korea, Japan, and Singapore – the country is envisaged to yield significant additional growth dividends of between $100 billion to $136 billion per year by 2025.

The challenge is for Malaysia to focus on three key essentials: fast and affordable broadband, talent tailored for digital progress that includes new graduates and reskilled workers, and high digital adoption among consumers and businesses.
We also hope that the use of digital technology in commerce and business transactions can help identify taxable items and revenue to be more transparent and to work on a real time basis. This will help the government to impose and track the appropriate tax for the right items and revenue, irrespective of the prevailing tax system.

Through collaboration with the World Bank, we have looked critically into how the digital economy can drive growth. The report on “Malaysia’s Digital Economy: A New Driver of Growth” encapsulates the work on the digital economy that has taken place over the past year. The study also highlights several building blocks in the digital economy, and aims to stimulate better-informed discussions and policies to address the challenges we face.

This is of utmost importance as the digital revolution is inevitable. We need to continuously adjust, adapt, and evolve to embrace the digital economy to remain competitive and not be left behind. To do so, public policy needs to be as smart as possible, and this can only be done by consulting stakeholders and leveraging on smart technologies to arrive at the best public policy to keep growing digitally.

This article was originally a speech delivered by Dato’ Ir. Haji Amiruddin bin Hamzah, Deputy Minister of the Ministry of Finance, at the Conference on Public Policy in a Digital World.
Digital lifestyles, cashless societies, app-based businesses, ‘smart’ nations, virtual services – there is a tremendous amount of excitement in Southeast Asia now about the growth of the digital economy.

The region is a hotspot for digital development, and it already leads the world in some indicators, such as Internet and social media use.

The signs of Southeast Asia’s digital transformation are obvious, from its impressive tech ‘unicorn’ companies, such as GoJek, Grab and Lazada, Sea, Tokopedia, and Traveloka, to the entrepreneurs and small firms that are innovating and using technology to grow.

All of this is driving a high level of interest from the region’s governments, all of which are implementing various strategies to grow the digital economy. In other words, the full potential of technology as a driver of private sector growth is not being realized. This is because the region still faces significant barriers to growing the digital economy.

Six priorities stand out to strengthen the enabling environment for the digital economy.

The first is to improve the availability of affordable, high-speed Internet. Around half the population of ASEAN still lacks Internet access, and when available it tends to be through
mobile broadband (for example using smartphones) rather than the fixed broadband needed for data-intensive business applications. Public and private investment will be needed to address this, but policymakers can also help through regulatory reforms. In many countries, the broadband market is dominated by one or two large firms, and often these are state-owned. Reforms that promote competition could help to lower prices and increase speeds.

A second priority is to strengthen the population’s digital skills. Although the region already has good literacy and numeracy foundations, education systems need to be nimbler in developing the skills needed for the digital economy. These range from basic computer usage to advanced skills like coding and data analytics, as well as ‘soft skills’ like collaboration and communication. Achieving this requires a focus on lifelong learning; not necessarily acquiring specific degrees but developing skills for life. Singapore’s Skills Future initiative, which provides resources for ongoing re-training and skills development, is one example.

Digital payments are an essential part of a digital economy, and expanding their use is another priority for Southeast Asia. The latest World Bank Global Findex data shows that only 19% of financial account holders in the region access their accounts using a
mobile phone or the Internet. This is well below the average of the world’s middle-income countries, and Sub-Saharan Africa, at 27% and 24% respectively. Governments can help by putting the appropriate regulatory infrastructure in place and also by using digital payments in their interaction with citizens — such as paying for government services or receiving pensions. Likewise, government-run digital ID schemes can help citizens gain account access more easily.

Another barrier, especially for e-commerce, are high-costs and unpredictable logistics. The challenging geography of many Southeast Asian countries is an important factor, but regulation also plays a role. A recent World Bank-ASEAN report showed that logistics barriers to cross-border trade in the bloc are among the highest in the world. E-commerce shipments face unpredictable customs procedures in many countries. The World Bank Logistics Performance Index shows that customs is the weakest area of performance across the region’s logistics environment.

Fifth, policies that promote trust are essential for growing participation in the digital economy. These cover a range of areas from data privacy, to cybersecurity, to consumer protection. Fewer than half of ASEAN countries have comprehensive data protection laws, and the capacity of data protection authorities remains limited. Policies are also not coordinated regionally, making it hard for individuals and businesses alike to know what regulations apply when their data moves across borders.

Finally, governments need to lead by example and become more digital themselves. This means streamlining systems on an integrated ‘whole of government’ basis, but also offering digital services platforms that support businesses and reduce transaction times and costs, like online licensing and permit approvals.

Initiatives such as national digital IDs can trigger direct benefits in other areas of the digital economy — such as the previously mentioned digital payments example. Other policy areas, such as taxation, are also important for governments in growing the digital economy and managing its risks. But by building these six critical foundations for the digital economy, boosting the regional capacity and brokering technology to solve its development problems, Southeast Asian countries will be better positioned to unlock the full potential of the digital economy across the region.

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About 20 young women in the Shah Alam eRezeki center work quietly on their desktop computers as the class proceeds. They are there to learn about how to work online, doing digital tasks that earn them an income. On banners nearby are vignettes of Malaysians – many from the bottom 40% of the income group, and the primary target group for this program – who have benefited from these opportunities. One businesswoman selling clothes and furniture online since 2013 saw her monthly sales increase ten-fold after learning how to better market her products online. A retired lecturer learnt about online work opportunities and began performing dispatch services for delivery apps, earning over RM2,400 (~$580) a month.

Apart from the community it creates, and its training programs that connect them to work, these young women rely on the fast and reliable Internet connections that they can access at the center. Without it, they simply would not be able to work online.

However, many Malaysians do not have access to similar services in their homes or at their workplace. Only about a third of households have fixed broadband connectivity, the kind over which one can work online, run a small business, or even watch YouTube.
videos to learn a new skill. The rest, which includes most of the country’s lower-income or rural households, have either slower connections or need to use widespread mobile connections. Those are sufficient when on the move or to engage on social media or access basic government services, for example. But it’s hard to write up a résumé on a smartphone, and not easy to rely on a mobile connection to run a business.

For a country looking to cement its digital future based on growth in e-commerce, AI, and automated and digitized manufacturing, the high prices and low use of such fixed broadband connections is worrying.

Malaysia’s fixed broadband market has stagnated since 2010 in terms of subscription growth: household subscriptions rates increased 10%, among the slowest in the world in that period for an unsaturated market (see Chart 1).

Constraints and Consequences
The World Bank recently launched a report discussing the reasons for this stagnation. We found that Malaysia has done well in the mobile broadband market. Subscriptions to 3G and 4G services equal about 116% of the population, as of June 2018. That market is competitive, with four major networks offering a range of packages to consumers across the country.
But the fixed broadband market is less competitive and is dominated by the incumbent Telekom Malaysia (TM). TM has over 87% of the retail market and controls a significant part of the national backbone and international connectivity markets. Indeed, Malaysia is among the most concentrated fixed broadband markets in the world (see Chart 2). International experience shows that concentrated markets tend to experience higher retail prices, lower levels of adoption, and less innovation in services. All of this applies to Malaysia, where prices might be unaffordable for many, further holding back adoption.

While households might tend to be more price sensitive, businesses are often sensitive to connection quality. Variations in the reliability of a home broadband connection might be bearable, but reliable connectivity is critical for businesses that coordinate logistics (for e-commerce), manage a field-force (in the retail sector), execute transactions (a bank or brokerage), or need massive computing resources (for AI or data analytics).

**Malaysia’s businesses have been slow to adopt digital tools, with quality and cost being decelerating factors.**

Interviews with one group of small business-owners exposed the frustration with difficulties in organizing video conferences, for example. As the world globalizes and digitizes on the back of the Internet, such constraints can prove damaging to firms’ and a country’s competitiveness.
Finding the Lily Pad

As an early pioneer in the digital economy with bold moves in the 1990s, Malaysia has many of the building blocks to leapfrog to a new digital future. Our report proposes two sets of measures to accelerate coverage and improve affordability.

First, Malaysia should find ways to use its existing, extensive infrastructure more efficiently, and promote more competition in the fixed broadband market. Many of the needed rules are on the books, and implementing them to drive competition will likely pay off – as it has in the mobile market – and improve market outcomes. Second, a bold new policy and strategy for the sector can also help, signaling new targets for the future, attracting greater private investment into network roll out, and identifying specific market failures that government support can address.

As more young people seek opportunities in a digitizing world, ensuring that they have affordable and reliable access to the Internet anywhere will be critical. A more enabling environment for market development combined with renewed ambition will help to deliver a more inclusive and promising digital future for more Malaysians.

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History and evidence suggests that in the long term, fears of technology leading to job losses and reduced wages are actually misplaced. However, in the short and medium term, the dislocation can be severe for certain types of work, places, and populations. It is during the transition period that policies are needed to facilitate labor market flexibility and mobility, introduce and strengthen safety nets and social protection, and improve education and training.
The Fear: Are We Running Out of Jobs?

There is growing fear that recent and emerging breakthroughs in technologies such as AI and robotics will lead to the wholesale replacement of human workers by machines, thus bringing us into an era of mass joblessness and wider income inequality.

History widely documents that workers’ jobs and livelihoods have been significantly impacted by machines – as seen in the First Industrial Revolution in the 1750s, and more recently, strikes by taxi drivers in protest of on-demand car services such as Uber. The fear of losing our jobs due to obsolescence may be one of our greatest fears – and for good reason: job loss has significant and long-lasting negative effects on future employment, earnings, consumption, health, and even life expectancy.

What determines vulnerability to automation is not so much whether the work concerned is manual or white-collar but whether it is routine.

Employment growth in many countries has followed a U-shape in recent decades, termed as ‘job polarization’. In such cases, middle-skill jobs are declining but both low- and high-skill jobs are expanding. While the U-shape holds for many developing countries, the outcome of the relationship between employment growth and skills distribution depends on local labor market conditions, existing skills distribution, and adoption of technology.

The Past of Work: Have We Been Here Before?

The prediction that automation will make humans obsolete have been posited before and these claims date back to the past three Industrial Revolutions – the 1760s; the 1890s; and the 1970s. Each has been characterized by technological innovations: the First by steam engines and the mechanization of factory production, the Second by electricity, and the Third by using electronics and information technology (IT) in production.

These past Industrial Revolutions have led to large productivity improvements, which in turn also significantly raised welfare in developed countries, in terms of both material living standards and leisure. However, the material living standards and leisure in developing countries lag far behind those in developed countries – which suggests that developing countries stand to gain more from technology-driven productivity growth.

Nonetheless, productivity gains take time to materialize. In the case of electricity, the productivity boom occurred only in the 1920s - 30 years after factory electrification. We saw a similar trend for ICT, which started in the 1970s and which only had a visible impact in the 2000s. This long gestation period is a likely phenomenon observed for most technologies.
and particularly pronounced for general purpose technologies, as production processes need to transform and adapt to reap the benefits.

Yet in the past 250 years, the warnings of technological unemployment have been assuaged by the economic response to automation. Some specific jobs in certain sectors may disappear, but new jobs have also been created. For instance, in the United States, farming went from being the main employer in the economy, with 41% of all jobs in 1900, to employing only 2% of workers in 2000. Over this century, productivity gains allowed agriculture to feed a growing population with fewer workers, while the rise of new economic activities created better-paying jobs and opportunities in the cities for all workers.

The positive labor effects of such shifts typically take decades to materialize and as in the past, it resulted in a long period of time in which wages and employment fell or remained stagnant despite the adoption of new technologies and increases in productivity. The long pause, coined as the “Engels’ pause”, has caused labor disruption, social unrest, and even political revolutions.

The Future of Work: Is This Time Different?

No Industrial Revolution poses the same labor market effects. The pessimist’s view of machines taking away all jobs, and the optimist’s view of technology creating new ones has generated an ongoing heated debate amongst policymakers, technology experts and civil societies. While it is hard to predict the outcome of the future, the implications of the Fourth Industrial Revolution is broader-based as machines can now perform non-routine tasks which apply human logic and information.

Evidence of such disruption has already been seen in the Philippines. Some companies in the business process outsourcing industry have recently begun replacing call center agents with chatbots powered by AI systems.

While the impact of technological change is for the moment, mostly evident on relatively low-skilled ‘process-driven’ business outsourcing, there are widespread fears of more general impacts in the medium term.

This does not mean that machines will replace all labor or that wages will plummet across the board. Computers based on AI are remarkably effective in conducting specific tasks rather than replicating human intelligence. Autor (2015) believes the human contribution is likely to remain a crucial ingredient, citing the example of the ‘O-ring’. Moreover, the replacement of labor by machines takes time, and depends on specific circumstances, such as the relative cost of labor and the different stages of development of a country.
A Framework to Assess the Impact of Technological Innovation on Jobs and Wages

To assess the effects of technology on employment and wages, innovations are categorized into enabling technologies and replacing technologies\(^1\). Enabling technologies expand the productivity of labor, and lead to higher employment and wages. Replacing technologies, in contrast, substitute for labor, making workers less useful and lowering their wages.

While the direct effect of replacing technologies is negative on wages and employment, it can still have a positive effect in two main ways. First, new technologies can generate complementary tasks. Second, the productivity effects can be sufficiently large to create wealth and generate demand for other jobs.

**Ultimately, the effects of technology do not depend only on the properties of technology, but its interaction with the workers’ abilities and the conditions of labor markets.**

Rigid labor markets tend to adjust by shedding labor, while more flexible labor markets adjust through wage reductions. Flexible labor markets can also induce workers’ reallocation and mobility in the face of technological shocks, mitigating negative effects on both employment and wages.

**Policy Implications**

Technological change promises tremendous gains in productivity and welfare. History shows that the transition for workers will be difficult, and even more so in the advent of AI. Therefore, policies should focus on maximizing the potential social gains and making it easier for workers

\(^1\) See Acemoglu and Autor (2011) and Acemoglu and Restrepo (2018).
to acquire new skills and switch jobs if needed. This requires policies that facilitate labor market flexibility and mobility, introduce and strengthen safety nets and social protection, and also improve education and training.

Policies that make labor unduly expensive induce the adoption of labor-replacing technologies. Labor market reform should be directed at facilitating labor flexibility and mobility, including international migration. Getting the basic business environment right for firms to invest and hire workers, and reducing market failures that hinder the growth of startups, can similarly help capture the gains of technological change.

**The policy principle should not be to protect obsolete jobs, but to protect people.**

Safety nets are essential to support workers (and their families) who are displaced or replaced when new technologies are implemented. In the long run, broader redistribution policies may be desirable to make sure that the technological dividends are spread around the population, making everyone an ‘owner’ of the current and potential technologies.

Educational reform – emphasizing scientific, mathematical, and communicational abilities, as well as softer skills such as perseverance, flexibility, creativity, adaptability, and teamwork – is crucial to developing the complementary skills that workers need to benefit from all types of machines and technologies. Complementing fundamental education with active labor market policies, workforce training, and other opportunities for lifelong learning, can encourage workers to stay engaged and continue to participate in evolving labor markets.

**Conclusion: Race with – Not Against – the Machine**

In the long run, technological innovation can bring about higher incomes and quality of life, including more leisure. Even in light of the challenges brought about by the Fourth Industrial Revolution, this prediction is attainable for the entire population – but only if public institutions promote equality of opportunity, generate an educational system that favors flexible skills and creativity, and use redistribution policies to share the proceeds of technological gains. With proper public institutions, instead of raging or racing against the machine, instead, we can race with the machines toward a better future.


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ASEAN nations show different levels of progress in the digital financial services (DFS) policy and regulatory arena. This mirrors the different levels of financial system development. Throughout ASEAN, some common factors contribute to the development of DFS; namely, enabling frameworks for the provision of payments; e-money; and the use of agents by banks and non-banks due to a more flexible approach to innovation by financial authorities and broader policies. Addressing challenges to DFS requires financial and other government authorities to approach these needs and goals in a comprehensive and coordinated fashion.
An evaluation of how current DFS regulations favor competition, facilitate and adequately assess the risks of investments, and fulfill consumer protection goals is needed. Additional DFS development opportunities are emerging among ASEAN member states. Authorities in most advanced DFS environments should prioritize the development of both the traditional and the disruptive data infrastructure to support innovation on data gathering, storage, and management.

At the request of the ASEAN Working Committee on Financial Inclusion (WC-FINC), the World Bank carried out a cross-country overview of the policy and regulatory framework for DFS in ASEAN countries. The analysis, undertaken from a financial inclusion perspective, was based on a regulatory survey conducted by the ASEAN WC-FINC, supplementary interviews with relevant regulatory authorities, and a literature review.

DFS is defined as the range of services accessed and delivered through digital channels, including payments, savings, and credit. The methodological framework the analysis uses is the foundations and catalytic pillars proposed by the Payment Aspects of Financial Inclusion report. This framework was adjusted to consider DFS more broadly, and to focus on policies and regulations.

Many countries (such as Indonesia, Malaysia, the Philippines, Singapore, and Thailand) show strong political commitment to DFS.

This is demonstrated through policies and regulations that reveal innovative ways to interact with the private sector (by means of orientation, piloting, and promotion activities); public sector initiatives in the retail payment system infrastructure; improvements in the ID systems to facilitate customer identification for financial service providers; or the setup of regulatory frameworks for DFS, such as e-money (in almost all ASEAN countries), crowdfunding, or online lending platforms. In other countries, the goals in terms of DFS are less clear, and traditional financial system regulation or infrastructure (such as in the case of microfinance sector regulation, credit bureau penetration, or gross and retail payment system infrastructure) needs to be strengthened.

In addition, the use of electronic outlets seems widespread across the region (although their average usage is lower than in developed regions), and there are flexible schemes to comply with customer due diligence for e-money and basic accounts.

**DFS Challenges**

There has been little articulation of national strategies to increase financial inclusion, digitization of the economy, and other efforts related to supporting the expansion of inclusive financial services provided through digital channels.
Ensuring effective mechanisms of coordination among different governmental authorities is also necessary. Overlapping regulatory mandates may render ineffective the existing regulations that protect consumers or allow oversight of DFS providers.

Existing gaps in the basic infrastructure, such as an efficient and accessible retail payment system, need to be filled.

**Improvements to information services infrastructure (credit bureaus or complementary institutions to deal with alternative data sources) are also necessary.**

Traditional financial services providers (cooperatives and other non-banks) must improve their fund protection mechanisms. Further, efforts to leverage large-volume flows to spread access and use of financial services must be increased.

In many cases, a feeble regulatory and supervisory capacity, both to fully comprehend the evolution of financial services and to deal with the additional risks brought by innovations and new business models, needs to be strengthened.

Additional elements that prevent the expansion of DFS include the potential risks of regulatory arbitrage, regulatory uncertainty or incomplete schemes for the protection of customers, deficiencies in financial and technological literacy, and the lack of reliable data related to traditional and emerging technologies. All these elements vary widely by country and are observed mostly in less developed ecosystems.
The Way Forward

Addressing DFS challenges requires a comprehensive and coordinated approach toward DFS needs and goals from financial and other government authorities. This can be complemented with monitoring and evaluation frameworks, as well as institutionalized mechanisms to facilitate coordination. Considering how to leverage developments in terms of infrastructure (digital, outlets, and data), and particular features of the financial system (existing payment service providers, microfinance institutions, nonbanks), could be a more efficient way to support progress in DFS.

Countries need to reassess how policies and regulations for each element of the analytical framework affect DFS expansion (political commitments, infrastructure, and crosscutting regulatory frameworks), as well as look at the status and targets within each catalytic pillar (DFS services, outlets, financial literacy, and large volume payment streams management).

Progress in financial and technological literacy would enhance trust in DFS, and better data would help policymakers to set clear and feasible goals toward progress on financial inclusion, identifying the gaps and barriers that hinder development.

Concerted actions among member countries to remove regulatory barriers, and to enforce governmental actions when needed, could support the sound expansion of DFS at the country and regional levels. For example, intraregional knowledge exchange, openness and facilitation of cross-border investment, and partnerships between the private and public sectors to support innovation could greatly enhance the development and use of DFS.

New technologies and business models, such as cloud computing, distributed ledger technology, or e-commerce, have the potential to support DFS expansion. Authorities should consider analyzing these topics from a financial inclusion angle (identifying risks and opportunities) to leverage these innovations for DFS expansion.

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During the last two decades, economies in East Asia and the Pacific have been integrating internationally in terms of trade and finance. However, while most of the trade integration has been within the region, most of the financial integration has been with countries outside the region. A closer examination indicates that the relative lack of regional financial connectivity occurs primarily in arm’s-length type of investments, like equity, bonds, and bank syndicated loans. The region is much more connected through foreign direct investment (FDI), comprising both mergers & acquisitions (M&A) and greenfield investments. As EAP continues to develop financially, though, regional investments should gain a greater share of arm’s-length investments.
Worldwide, the EAP region has been outgrowing every other region. By 2016, it had captured about 30% of the world’s economic activity, up from 21% in 1990. A significant part of this growth was driven by China, whose GDP grew to about 15% of global GDP in 2016.

Accompanying their growth, EAP economies have been pursuing global integration in terms of trade, although an important part of EAP’s trade expansion has been associated with a trend toward regionalization.

In 2016, about 60% of EAP’s exports and imports was intraregional.

Moreover, many EAP economies have been liberalizing and expanding the scope and depth of their financial systems. Beyond unilaterally lifting formal restrictions to capital flows, they have engaged in bilateral investment treaties to boost integration into global financial markets. As of 2016, up to 542 of these treaties involved a party in EAP.

In addition, several initiatives have been launched to promote regional financial connectivity. For instance, ASEAN launched the ASEAN Comprehensive Investment Agreement (ACIA). The ACIA aims to establish a free, open, transparent, and integrated investment regime for investors throughout ASEAN. Indonesian, Malaysian, Filipino, Singaporean, Thai, and Vietnamese stock exchanges have been working together to promote ASEAN capital market integration. This collaboration resulted in the launch of the ASEAN Trading Link, which connects the region’s stock markets together.

Global vs. Regional Financial Integration in EAP

The evidence suggests that EAP economies are more financially-integrated with global markets than with regional ones. For instance, intraregional portfolio investments accounted for only 23% of EAP cross-border investments in 2016. The relatively-low levels of regional financial integration seem to be at odds with the complementarity between trade and financial flows, as well as with the negative effect of distance on the creation of financial links. Both trade and distance would predict much more financial integration within the region.

Part of this is explained by Asian economies sustaining large current account surpluses and accumulating U.S. financial assets, leading to the so-called ‘global imbalances’. There is, however, a marked difference in the extent of inter vs. intraregional financial integration across different financial instruments. This can be seen mainly between arm’s-length investments (portfolio investments and syndicated loans), and FDI (comprising M&A and greenfield investments).
The EAP region seems to be well-connected regionally in terms of FDI.

Investments within the region accounted for around half of EAP’s FDI between 2003 and 2016, whereas this share was 23% in the case of portfolio investments, and 32% for syndicated loans (Figure 1).

Most of EAP’s global investments occur with developed economies. In 2016, developed economies accounted for over 80% of EAP’s inter-regional investments, except for greenfield investments with a share of around 44%.

**Figure 1. East Asia and Pacific’s Cross-border Investment Shares by Region**

Source: Coordinated Portfolio Investment Survey (IMF), SDC Platinum, and fDi Markets.

Note: This figure shows the share of developed, developing, and EAP economies in the value of EAP’s cross-border investments (sent and received together). Developed economies comprise the G-7 members, excluding Japan, and 15 other Western European economies. Developing economies comprise the countries not in the EAP region or the developed economies group. Offshore financial centers are excluded from the sample.
Factors Causing This Difference

The differences across investment types could be connected to the relative underdevelopment of EAP financial markets. For example, between 1990 and 2016, the share of domestic credit to the private sector over GDP was 95% for the median developed economy, and 42% for the median EAP economy. The literature on global imbalances suggests that Asian economies lack enough ‘safe’ assets in which they can allocate their excess savings, and thus they invest in assets from developed economies.

The development of the financial sector is key for arm’s-length investments, which could partly explain the larger participation of developed economies. This is particularly important in portfolio investments (equities and bonds) compared to syndicated loans. Although capital markets in various countries in the region have expanded significantly, in several other countries they are small and characterized by comparatively low liquidity, high transaction costs, and a narrow investor base.

Recent trends common to all investment types indicate a change in the geographical composition of EAP’s investments toward regional and developing economies. In the case of developing economies, the growth in financial investments can be traced to expansions not only in the value of the financial connections (the ‘intensive margin’), but also in the number of active connections (the ‘extensive margin’). This is part of a broader trend that includes the rise of developing economies in the global financial scene.

The lack of regional connectivity in arm’s-length investments (compared to that in FDI or trade) also occurs in other developing regions such as Latin America and the Caribbean, Europe and Central Asia, and Sub-Saharan Africa. In fact, EAP stands out as the most regionally-integrated developing region across all investment types.

However, the EAP region comprises a wide range of economies. For example, in 2016, Singapore’s GDP per capita was $52,961, whereas Cambodia’s was $1,270. Similar disparities exist with respect to the extent of their financial sector development. Not surprisingly, the more-developed EAP economies (as measured by GDP per capita) account for the bulk of the value of EAP investments. Nevertheless, their participation is more important in arm’s-length investments than in FDI. For instance, the more-developed EAP economies accounted for 92% of EAP’s inter-regional portfolio investments between 2003 and 2016, but only 46% in greenfield investments.

Concluding Remarks

Greater regionalization, and participation of developing economies in EAP’s investments, could be a sign of EAP’s strategy for diversification away from developed economies. This would allow the region to benefit from greater risk-sharing.
Increasing regional financial integration could have some specific advantages compared to a strategy of global integration. First, it could reinforce economic integration and foster growth by facilitating coordination of regulations and supervisory policies across countries. Second, it could promote the financial inclusion of previously underserved segments.

Greater regionalization could also pose additional risks. Business cycles tend to be more correlated among neighboring countries; hence, regionalization can limit the benefits of risk-sharing. It can also lead to a larger exposure of a country to regional shocks, and a faster spread of foreign shocks once they hit one of the countries in the region. Financial stability might also be negatively affected by a potentially-lax regulatory and supervisory environment in developing economies, relative to developed economies. Given the cross-border nature of the investments, appropriate macroprudential policies and stronger international policy cooperation could be used to boost resilience and mitigate risks to stability.

Initially, both the benefits and risks of regionalization are expected to have a greater impact on FDI, an area in which regional connections play an important role. However, as EAP continues to develop its financial systems and promote common standards across countries, regional investments can be expected to capture an increasing share of portfolio and bank investments.

For the full report of Financial Integration in East Asia and Pacific: Regional and Interregional Linkages, visit http://bit.ly/fi_eap2018

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In recent years, climate change has risen to the top of the development agenda, with 195 countries signing the Paris Agreement to fight climate change. Given the scale of the financial resources required to support climate mitigation and adaptation initiatives, coupled with the strain on government budgets, the mobilization of financing through innovative instruments becomes imperative. This is where Islamic finance comes in – to support green investments and climate-friendly projects through financial instruments such as the green sukuk. Countries like Malaysia have become innovators in Islamic finance in using new instruments to catalyze the growth of green developments.
At the World Bank, we see climate change as a major threat to our core mission of eliminating extreme poverty and boosting shared prosperity. Current weather extremes already affect millions of people, putting food and water security at risk, and threatening agricultural supply chains and many coastal cities.

Therefore, climate change has become one of the most pressing issues in the global development agenda.

**If urgent action is not taken, an estimated 100 million people could be pushed into poverty by 2030 because of the negative effects of climate change.**

Given the scale of the financial resources required to support climate mitigation and adaptation initiatives, coupled with the strain on government budgets, the mobilization of Islamic financing through innovative instruments becomes imperative. Islamic finance has substantial potential to support the green agenda and is undoubtedly part of the solution to solving the climate change problem.

In December 2015, 195 countries signed the Paris Agreement, signaling a global response to climate change. Signatory countries committed on specific targets and Islamic finance can contribute to deliver on those goals.

**Islamic finance has witnessed rapid growth and today, total Sharia-compliant assets are estimated at around $2 trillion. This offers tremendous potential in supporting the climate change agenda.**

Indeed, Islamic finance rests on fundamental principles of risk sharing and partnerships, which could prove critical in financing investments to address climate change, as they often involve innovative and risky technology and activities.

Malaysia offers a value proposition as a center for sustainable finance and investment, with a commitment for Islamic capital market to be a key driver for the green agenda. Malaysia is one of the largest sustainable investment markets in Asia (excluding Japan), with a 30% market share including Islamic funds.

Moreover, Malaysia has been an innovator in Islamic finance, with new instruments such as exchangeable sukuk, social-impact sukuk, green sukuk, and leading the entry into new markets (Singapore, China). Four solar renewable energy projects and one green building were financed...
by the green sukuk in Malaysia. Since then, green Islamic financing have been receiving increased attention. Most recently, a sovereign green sukuk issued in Indonesia in February 2018 was used to finance projects ranging from renewable energy to waste management.

The public sector and policymakers play a fundamental role in supporting market development in the green finance and Islamic finance arenas.

A good example from Malaysia is through the promotion of Sustainable and Responsible Investment (SRI), as illustrated by the “Guidelines on Sustainable and Responsible Investment (SRI) Funds”, issued by the Securities Commission in December 2017. Key Malaysian institutional investors – including the Employees Provident Fund (EPF), Kumpulan Wang Persaraan (KWAP), and Khazanah – are actively moving towards sustainable and responsible investing.

Therefore, Islamic finance can be a catalyst for the growth of green developments. There must be a multipronged long-term approach to combating climate change and Islamic finance can significantly contribute by providing various financing solutions.
Promoting sound and inclusive financial institutions that serve the people and the private sector; in particular, micro, small and medium enterprises, is crucial to achieving our twin goals of reducing poverty and promoting shared prosperity. For decades, the World Bank Group has worked with DFIs in many countries, and has provided lines of credit, guarantees, and technical assistance programs.
Looking forward, DFIs are an important instrument in the global effort to reduce poverty and support economic growth. As the international community struggles to mobilize additional funds to meet the Sustainable Development Goals by 2030, DFIs can be instrumental in narrowing that gap. DFIs not only finance projects that the private sector is unwilling or unable to finance, they also help to create and develop new market niches, develop innovative schemes to attract and channel private sector resources to large infrastructure projects, build capacity in public and private sector institutions, conceive and structure new investment projects, and facilitate the execution of public-private partnerships.

While some DFIs have been successful in the past, others continue to face challenges to fulfil their goals. There are multiple examples of poorly performing DFIs that have become a heavy fiscal burden. Moreover, poor performance of DFIs has led to credit market distortions that displace and crowd out private financial institutions, instead of crowding them in. Often, weak DFIs have also become vulnerable to political interests in various parts of the world.

To avoid these potential pitfalls, DFIs need a well-defined mandate; they need to operate free of undue political influence, focus on addressing significant market failures, concentrate on areas where the private sector is not present, and monitor and evaluate interventions, adjusting them as necessary to ensure impact. DFIs must operate with high transparency and accountability standards.

As such, to be able to deliver good results, it is important that DFIs have in place an effective performance measurement framework. Without the tools and systems to monitor progress to make timely course corrections, to test and assess necessary innovations, and to evaluate results, it will be hard for DFIs to achieve their goals.

Moreover, without a proper evaluation system, DFIs will not be able to understand which policies and programs work, in which context and why. As a consequence, they could be spending a lot of time and resources just to find out later that there was a better way to meet their goals.

DFIs exist to address specific market gaps where private banks don’t deliver services. The market, therefore, will not signal to them success or failure. Instead, evaluation systems need to do so to ensure DFIs fulfil their mandate. Knowing which programs and financial instruments produce results and which do not is essential to ensure DFIs are efficient and effective.

Ultimately, it is not as easy as it sounds. The use of robust and effective tools to monitor and evaluate the activities of DFIs is still at its infancy stages, in part due to the lack of international benchmarks. Practitioners recognize the importance of developing and adopting such frameworks, but little practical guidance is available to guide efforts for existing DFIs.

Throughout the years, the World Bank has tried to assess the effectiveness of its own programs and activities, and to learn from its own successes and failures. Our Independent Evaluation
Group, which is an independent unit within the World Bank Group, regularly assesses our business activities and tries to examine what works and what does not and why.

Performance measurement has been an important area of focus over the past years and we continue to invest a lot of resources in building systems and improving our own indicators to measure our developmental impact.

More than ever, we need to think of innovative instruments to attract and channel new resources to finance our developmental aspirations. In the next 15 years, Malaysia will need to mobilize billions of dollars to achieve the 2030 Sustainable Development Goals, fulfill the commitments of the Paris Agreement, modernize and expand existing infrastructure, and continue to improve the living standards of its population. Existing sources of finance are insufficient to meet Malaysia’s development aspirations, thus more effective instruments are needed to mobilize private sector capital.

Our experience shows that for DFIs to remain relevant, it is important that their developmental mandates be reviewed periodically and adjusted, if needed. We live in a world in which technology is rapidly changing our lives and the ways we do business. Moreover, thanks to rapid economic growth during the past three decades in Asia, the financing gaps that many DFIs were supposed to fill have been narrowing.

The challenges that the DFIs of Malaysia face are not unique to the country alone.

Now is a good time for Malaysia’s DFIs to think about the future and how local DFIs can reinvigorate themselves to support the country’s future economic development.

This article was originally a speech delivered by Mara Warwick, World Bank Country Director for Brunei, Malaysia, Philippines and Thailand. For the full report of the 2018 Survey of National Development Banks, visit http://bit.ly/ndb2018my
The reallocation of resources from low- to high-productivity firms can generate large aggregate productivity gains. A recent analysis was conducted using data from Malaysian manufacturing censuses. The country’s hypothetical productivity gains, when moving toward the level of within-sector allocative efficiency in the United States, was measured to be between 13% and 36%.
Across three census periods in 2000, 2005, and 2010, the productivity gaps appear to have somewhat widened. This suggests that the ‘catching-up’ process remains a challenge and a potential opportunity, particularly if total factor productivity (TFP) is expected to be the dominant source of future economic growth. The simulations based on a set of different assumptions show that Malaysia’s gross domestic product (GDP) growth can potentially increase by a maximum of 1.3 percentage points per year over five years.

The analysis accounts only for resource misallocation within sectors. There may be other resource misallocation across sectors. If so, closing those gaps could boost TFP and GDP growth even further.

What is Resource Misallocation?

One of the most active areas of research in macro development is in connecting resource misallocation with productivity gaps. Resource misallocation is a concept which tries to explain why TFP differs even across firms which operate within narrowly-defined industries. While conventional discussions about improvements in productivity center on technology, misallocation focuses on efficient reallocation of resources – ideally, from the less- to more-productive firms. Each analytical approach carries a different policy focus; the former calls for policies geared toward increasing technological diffusion and innovation, and are usually complemented with policies that incentivize learning, upgrading of skills, and investment in education; and the latter, on correcting or reducing market distortions to improve allocative efficiencies.

Our paper follows Hsieh and Klenow’s (2009) empirical framework, which argues that allocative efficiency is maximized when two firms identical in technologies allocate inputs to the point where they have the same marginal revenue product. Shifting resources to productive firms enhances productivity because it allows productive firms to grow, and less-productive ones to shrink or eventually exit from the industry. Therefore, large dispersions in marginal-revenue products or TFPRs among firms operating within a narrowly-defined industry is symptomatic of misallocation of resources. Many studies and anecdotal details showed how corruption, regulation, or direct government involvement can distort the most efficient allocation of resources, especially in lower-income economies. Distortions may explain the unequal access to resources, but there could be also other factors at play.

In our paper¹, we attempt to answer three questions by measuring the extent of resource misallocation in an economy. First, how important is resource misallocation in causing the productivity gaps in the manufacturing sector and industries in the sector? Second, what are the main causes of misallocation of resources? Third, what is the cost of misallocation of resources to overall economic growth?

What is the Extent of Resource Misallocation in Malaysia?

Our findings show the hypothetical efficiency gain derived from a complete elimination of distortions to be between 60% and 95% (Table 1). Had resources been allocated ‘perfectly’ across firms, the hypothetical productivity gain is calculated to be an average of 79% for the three periods. The allocative efficiency gap between the United States, the benchmark economy, and Malaysia worsened during these census periods, suggesting that the catching-up process remains a challenge.

Table 1. TFP Dispersions and Gains in 2000, 2005 and 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of obs.</th>
<th>TFPQ</th>
<th>TFPR</th>
<th>Wedge</th>
<th>P.H. Gain 1</th>
<th>P.H. Gain 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SD</td>
<td>75–25</td>
<td>90–10</td>
<td>SD</td>
<td>75–25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Capital SD</td>
<td>90–10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Output SD</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>7,698</td>
<td>1.0537</td>
<td>1.5096</td>
<td>2.7399</td>
<td>0.7564</td>
<td>0.9414</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.9764</td>
<td>0.9414</td>
<td>1.8666</td>
<td>0.5713</td>
<td>1.6637</td>
</tr>
<tr>
<td>2005</td>
<td>9,511</td>
<td>1.0738</td>
<td>1.4774</td>
<td>2.7769</td>
<td>0.7813</td>
<td>0.9685</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.7813</td>
<td>0.9685</td>
<td>1.9440</td>
<td>0.5681</td>
<td>1.6427</td>
</tr>
<tr>
<td>2010</td>
<td>7,412</td>
<td>1.1385</td>
<td>1.5394</td>
<td>2.9679</td>
<td>0.7843</td>
<td>1.0017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.7843</td>
<td>1.0017</td>
<td>1.9591</td>
<td>0.6002</td>
<td>1.6220</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.

Note: Potential Hypothetical (P.H.) Gain 1 is measured as TFP gains derived from a complete elimination of distortions in the economy. Potential Hypothetical (P.H.) Gain 2 is measured as TFP gains derived from a removal of distortions to that of the level of the United States in 1997. TFPQ, TFPR, Wedge, and Gains 1 and 2 are estimated based on census data for firms that exceed the threshold of 10 employees. No. of obs. = number of observations; P. H. = potential hypothetical; TFPQ = physical productivity; TFPR = revenue productivity; SD = standard deviation.
Nonetheless, Malaysia’s productivity loss (30.5%) is comparable to that of China (30.5%), an upper-middle-income country, but lower than that of India, which is perceived to experience larger market distortions (Figure 1). An industry-level analysis revealed the misallocation to be rather significant in the food and beverage industry, but less apparent in the export-oriented industries, such as textiles, wood and wood products, and the machinery, electrical, and electronics industries.

Furthermore, a positive relationship between the physical productivity (TFPQ) and the revenue productivity (TFPR) suggests that productive firms are systematically ‘taxed’, potentially resulting in larger drags on overall aggregate TFP. The decomposition of the sources of productivity shows that both the distortions in the output and capital market harm productive firms.

**Figure 1. Moving to the Level of Efficiency of the United States in 1997**

<table>
<thead>
<tr>
<th>Year</th>
<th>TUR 2014</th>
<th>CHN 2005</th>
<th>MYS 2014</th>
<th>IND 1994</th>
<th>KEN 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24.5</td>
<td>30.5</td>
<td>35.7</td>
<td>59.2</td>
<td>83.8</td>
</tr>
</tbody>
</table>

**Figure 2. GDP Estimates for the 3 Scenarios Using MA(3) Method Projections as the Baseline**

Source: Authors’ calculations

*Note: CHN = China; IND = ; KEN = Kenya; MYS = Malaysia; TUR = Turkey; US = United States.*

2 We used the Box Jenkins method to identify a suitable ARMA(p,q) model, and found ARMA to be (0,3). In other words, a simple MA(3) that yields the lowest Akaike Information Criterion (AIC) appears to be the best model for GDP growth.

**What is the Impact of Misallocation of Resources on Growth?**

We constructed three scenarios with three possible growth paths, building on the magnitude of the realization of productivity gains. Scenario 1 assumes modest reforms with a realization of a 10% productivity gain, and is estimated to lift growth by 0.4 percentage points over five years. More aggressive and purposeful market reforms in Scenario 3 with an increase in the realization of productivity gains could further lift growth by as much as 1.3 percentage points.
over five years. Therefore, closing this gap is important for Malaysia as TFP is expected to be the single most important contributor of future growth. Higher productivity growth is also essential to accommodate the impact of demographic changes, to boost competitiveness, and to enable Malaysia to escape the middle-income trap that is afflicting many emerging economies.

**Conclusion**

This research provides evidence on the extent of intra-sector resource misallocation and implications on Malaysia’s manufacturing sector and, the overall economy. Our results show that market distortions exist. We find large revenue productivity differences between firms in the 90th and 10th percentiles, and 75th and 25th percentiles, with estimated ratios of 7:1 and 2:1, respectively. These differences are caused by an inefficient allocation of resources. They can be reduced by removing the distortions in the capital and output markets.

One broad policy suggestion is to increase domestic competition, including lowering market barriers and reducing non-performance–based incentives. This is particularly evident for the food and beverage industry, which has received significant subsidies from the government. Reducing barriers to labor mobility can also contribute positively to growth going forward. It is argued that Malaysia faces a shortage of skills and talent (World Bank, 2014). Thus, policies that address the misallocation of resources should also support a better use and allocation of human capital. For instance, barriers to inflows of talents into the country should be reduced. This, in turn, will strengthen learning from the global frontier.

While simplified assumptions in the Hsieh and Klenow framework makes the results contestable, it is an approach which still provides a good approximation of resource misallocation. The future work will focus on relaxing some of the assumptions and disentangling improvements in physical productivity with other quality and demand factors.


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Performance-based budgeting (PBB) has been a popular reform among ministries of finance globally to make national budgeting processes more aligned with medium-term strategic plans. In Malaysia, Outcome Based Budgeting (OBB) represents an evolutionary step in its PBB journey, and is a good example of how a country can successfully link high-level national strategies to specific budget programs and activities using a common results framework. Change management, staff training, and stakeholder outreach were all key components of the Ministry of Finance (MOF)'s OBB strategy.
While the ‘front-end’ program and results structure of OBB is well developed, the stages related to performance reporting and performance evaluation are much less so. For OBB to have a more direct impact on Malaysia’s public sector performance, MOF may need to enhance the value of performance information to policymakers, and improve the institutional capacity to evaluate such information.

PBB represents a more evidence-based rationale for making budget decisions across an array of competing policy and program areas. Compared to a traditional line-item budget, it offers a framework for linking medium-term national strategies with the annual budget process, while its program logic structure provides a more transparent view of activities undertaken by each ministry. Ultimately, the appeal of PBB is in the incentives it provides for improved public service delivery.

Malaysia’s experience reflects a particular stage in its PBB journey, and provides some insights into the types of challenges that other countries may need to overcome to reap the full benefits that PBB promises.

As an early PBB reformer in Asia, Malaysia had introduced a series of budget reforms known as the Modified Budgeting System (MBS) in the early 1990s. The MBS devolved authority to managers, and set up an accountability framework built around the definition of program outputs and measurable targets. The MBS also introduced the notion of program agreements, and set up the skeleton for a potential reporting system for line ministries and agencies back to MOF. MBS was in operation for about 20 years, before changes to the national planning approach drove demand for changes to the annual budgeting system. The roll-out of OBB in 2010 represented an evolutionary step in Malaysia’s PBB journey to deepen its implementation, and enabled the government to re-orient budget preparation towards the achievement of clearly defined policy outcomes.

Design, Implementation, and Application of the OBB

Malaysia’s national strategies and priorities are guided by its five-year national development plans. The OBB links high-level national strategies to ministerial outcomes, program outcomes, and activity outcomes, using an integrated results framework to define accountability. While the budget is formulated at the activity level based on agreed outputs, each activity must be mapped to a specific program. National strategies are comprised of key focus areas, as well as national key performance indicators (KPIs). KPIs are in turn defined for each of the subsequent contributing levels of outcomes – ministry, program, and activity.

The OBB logical framework was designed so that programs and activities better reflect their contribution to high-level, cross-sectoral outcomes. Prior to its introduction under the 10th
Malaysia Plan (2011-2015), it was unclear how programs and activities were mapped to national and ministerial plans. Budget discussions focused on input utilization due to a lack of visibility on the outcomes expected. The adoption of the Outcome Based Approach required ministries to show how their programs and activities would contribute to national development goals. OBB implementation has also enabled MOF to better identify potential duplication across spending agencies.

Change management, staff training, and stakeholder outreach were all key elements of the MOF’s strategy for rolling out OBB. Recognizing the challenges of implementing the reform while managing core daily tasks, the MOF established an independent unit with the institutional freedom to fully develop, implement, and monitor OBB, as well as engage with line ministries. The team organized its work around three dimensions of the budget transformation strategy; (i) the budget model and framework – program-activity structure, vertical, and horizontal linkages; (ii) the people and stakeholders involved in the budget process – change management, capacity building, enhanced accountability through greater empowerment to the CEOs; and (iii) the management information system that facilitates budget planning, monitoring, and reporting. Specific requirements and strategies were identified for each of these dimensions.

During the first two years of the transition period (2010–2012), the OBB team developed the conceptual framework for OBB, creating the necessary training materials to support the reform. Through extensive use of Strategic Programming Workshops, the OBB team worked with each ministry to define outcome statements and determine the specific interventions needed to address identified problems.
More than seven years on, the OBB’s ‘front-end’ program and results structure is now very well developed, but the stages related to performance reporting and performance evaluation have not progressed as far. Budget Review Officers (BROs) can request performance information as needed to consider new requests, and the annual budget circular states that programs should be evaluated by the ministry every five years. However, there is no enforcement mechanism in place for BROs to ensure that such information and assessments are submitted to MOF. Under MBS, there was a requirement for ministries to report output variances that were outside the mutually-agreed range, but this proved to be impractical to enforce and was generally limited to financial performance. The most recent enhancement of OBB (as of January 2018) was to request ministries to report on their outcome KPIs on a quarterly basis.

Learning from International Experience

Many countries with PBB have found that performance reporting alone adds little value, unless the broader processes for budgeting and performance management can appropriately motivate people to care about their program performance, and empower them to act on such information. While the normal exchanges between BROs and program managers include discussions about financial and non-financial performance, BROs are often at an information disadvantage compared to the program managers in their ability to understand the program issues and to conduct in-depth evaluations. Ultimately, the decision to make significant changes to the design of a program or its funding, or whether to terminate it, requires a level of authority beyond the BRO, as well as a demand for performance information from senior officials.
Lessons from more than two decades of PBB worldwide suggest that senior decision-makers can only act on a limited number of performance-related issues, and that such interventions need to be strategic.

In addition, finance ministries are constantly challenged to manage the volume and quality of information that comprehensive, government-wide PBB can generate annually. In a recent roundtable discussion amongst the key participants in Malaysia’s budget preparation process, BROs explained that the bulk of their time was allocated to data collection and processing, leaving little room for conducting analysis and performance evaluations. For the report-generating line ministries, the incentives to take such reporting seriously diminishes over time if there are few consequences to non-compliance. International experience suggests that performance management may be more impactful when it goes beyond the tight deadlines of the annual budget cycle and targets a selective number of policy areas. The actual number should be consistent with the absorptive and technical capacity of the administration to manage.

As countries gradually take stock of what has worked and what has not, they are applying those lessons to the next generation of PBB. Five lessons drawn from this diversity of experiences and relevant for Malaysia are to: (i) set realistic objectives of what PBB can achieve; (ii) create space for performance discussions to go beyond the tight annual budget cycle; (iii) take into account the administrative and analytical capacity constraints that exist; (iv) tightly control the amount of data generated so as not to overload those who review it; and (v) prioritize those programs that have a genuine service delivery component.

Malaysia is still at a stage in its PBB journey where it can carefully contemplate strategies that will enable information to be used effectively in decision-making. For OBB to have a more direct impact on public sector performance in Malaysia, the MOF may wish to prioritize the following: (i) encouraging timely and accurate reporting on performance by ministries, when and where it is most relevant; (ii) developing the technical capacity to evaluate performance information and presenting it in ways helpful for senior level decision-making; and (iii) stimulating demand for performance information, possibly by linking it to individual and institutional recognition/reward systems.


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1 The World Bank hosted a Roundtable Discussion on “Strengthening the Performance-Oriented Budget for Malaysia” on August 6, 2018 in Kuala Lumpur. The roundtable provided a platform for BROs, line ministries, academia, and international experts to discuss the successes and challenges in implementing OBB. The aim of the event was to facilitate conversations among key stakeholders on what could make OBB more relevant and useful for policymakers in the future.

Harm reduction programs for people who inject drugs (PWID), one of the key populations with high HIV prevalence in Malaysia, have proven to not only be effective in preventing relapses but also cost-effective and cost-saving. Evidence-based initiatives like these could serve as an important learning point for countries in the same region that face similar HIV epidemics. It is an important move towards ensuring fight HIV and help PWID around the world.
Working in public health brings us close to the stories of brave patients and dedicated medical staff. Very often we also conduct quantitative and qualitative assessments of case studies. In recent years, our work in Malaysia engages a public health concern that has gripped the world – HIV. Our findings have given us hope of winning the fight against the disease.

In our study, we found that HIV harm reduction programs are the most cost-effective and likely to produce the most net cost-savings in the future. A long-term benefit projection from 2006 to 2050 indicates savings of approximately RM910 million in healthcare costs and an average return of RM1.13 for every ringgit invested in harm reduction programs. Continued support for these programs will save money and lives.

Malaysia’s HIV harm reduction programs focus on people who inject drugs (PWID), one of the key populations with high HIV prevalence. In 2006, the government launched two harm reduction intervention programs. The Needle and Syringe Exchange Program, conducted by local non-governmental organizations and the Ministry of Health, offers patients clean needles and syringes. The Methadone Maintenance Therapy provides heroin addicts enrollment in rehabilitation therapy where heroin or other opiates are replaced with synthetic methadone at public hospitals and clinics, private practitioners, Malaysia’s National Anti-Drug Agency’s clinics and service centers, as well as in prisons.

We found that both the programs have proved to not only be cost-effective but also cost-saving. It is estimated that the implementation of the two programs resulted in a total of RM210 million saved in direct health care costs. This produces a return of RM1.07 for every ringgit spent over the next ten years.

As for effectiveness, these programs have significantly contributed to the reduction of new HIV cases among PWID from over 4,000 per year in 2005 to only 115 in 2017. The HIV prevalence among PWID has also reduced from 22% in 2009 to 13.4% in 2017.

With the implementation of the two programs, the government has made clear systematic efforts and spent significant resources to control HIV transmission among PWID. Funding for harm reduction activities is almost exclusively from the public purse, and supplemented by funding from the Global Fund for AIDS, TB and Malaria and the International HIV/AIDS Alliance.

In a related study on PWID called ‘Making Drug Treatment Work: Opportunities and Challenges Towards an Evidence and Rights-Based Approach’, we found that opioid-dependent participants treated in voluntary drug treatment centers experienced a significant decrease in relapse to opioids and illicit drugs, compared to individuals released from traditional
compulsory drug treatment centers. These provide solid evidence for the scaling up the centers for treating drug dependence, as well as making evidence-based opiate-substitution treatments more accessible and voluntarily available.

Evidence-based initiatives like the ones taken in Malaysia could serve as an important learning point for countries within the region that are faced with similar HIV epidemics.

This not only confirms that Malaysia is doing the right things, but also inspires policymakers in other countries to apply evidence-based and cost-effective approaches. It is an important step towards providing effective help to PWID around the world.

This article was first published on the World Bank’s East Asia and Pacific on the Rise blog here: http://bit.ly/hivmyblog

For the full report of the “Return on Investment and Cost-Effectiveness of Harm Reduction Programs in Malaysia”, completed in collaboration with the University of Malaya, Kirby Institute and the World Bank with support from the Malaysian Ministry of Health, visit http://bit.ly/2CAXI3I

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RETHINKING DRUG POLICY
Towards Evidence and Rights Based Drug Policy in Malaysia

CRIMINALIZATION OF DRUG USE IN ASIA

In many Asian countries, people who use drugs are criminalized and confined in corrective facilities such as Compulsory Drug Detention Centers (CDDCs).

The goal of CDDCs is to balance individuals’ needs for rehabilitation with the right to safety for their family and community. However, challenges abound for CDDCs, including:

- Lack of trained health care personnel
- No evidence-based treatment or medical evaluation of drug dependency upon entry
- No proven track record of sustained rehabilitation benefits
- Human rights violations such as discrimination, abuse, and involuntary detention

MALAYSIA’S RESPONSE TO DRUG CONTROL

Like many other Southeast Asian countries, illicit drug use in Malaysia has been the focus of intense political and media attention for decades.

1978: CDDCs are introduced
CDDCs were first introduced in response to a growing heroin epidemic. These were operated by the National Anti-Drug Agency under the Ministry of Home Affairs.

2010: Mandatory detention for 7,000 people
28 detention facilities housed nearly 7,000 people. National laws mandated two years of detention followed by 18 months of community supervision post-release.

Who can be detained?

- Anyone deemed drug dependent by government medical officers
- Anyone who screens positive on urine drug testing for any illicit substance
A MORE HOLISTIC APPROACH

2005: Harm reduction programs introduced
Harm reduction, comprising Methadone Maintenance Treatment and Needle / Syringe Programs, was introduced.

2010: Programs rolled out to prisons
The Ministry of Health expanded Methadone Maintenance Treatment in communities and prisons.

This resulted in:

01 Reduced reliance on detention and forced rehabilitation

02 The National Anti-Drugs Agency shifting its emphasis from CDDCs towards voluntary evidence-based treatment

VOLUNTARY DRUG TREATMENT CENTERS (VTCs) VS. CDDCs

The observations from comparing VTCs to CDDCs show a stark difference in effectiveness between the two routes:

01 Opioid-dependent participants treated in VTCs experienced a 7x decrease in relapse compared to other similar individuals released from CDDCs

02 CDDC participants relapsed after an average of 33 days, while more than 50% of VTC participants had not experienced relapse after a year of follow-up

03 CDDC treatment is based on forced abstinence, instead of medical Opioid Agonist Treatment, despite evidence showing the medical treatment reduces drug use and HIV transmission

In light of these findings, the World Medical Association and International Federation of Health and Human Rights Organizations have called for all CDDCs worldwide to be closed due to the many concerns with their operations.
In light of the many questions of effectiveness and ethics raised by CDDCs, along with the encouraging evidence from VTCs, our analysis supports:

01 **Scaling up of VTCs** for treating drug dependence

02 **Making evidence-based treatments more accessible and voluntarily available**

03 **Transitioning from a CDDC system to one that is voluntary and community-based**

04 **Reviewing drug policies which continue to criminalize drug use to ensure people who use drugs can access evidence-based treatment**

Reassuringly, **policy modifications are underway** in some Southeast Asian countries where some CDDCs are transitioning to VTCs in which Opioid Agonist Treatment is available.

However, some VTCs in Vietnam and Malaysia are being **suspended or reverted to CDDCs**. Report findings with clear evidence of reductions in drug use are urgently needed.

For more information, visit [worldbank.org/Malaysia](http://worldbank.org/Malaysia)
As agents of change and progress, the recent celebration of this year’s International Youth Day commemorates the spirit of young people as a force to be reckoned with. In this spirit, participants of the Harvard Project for Asian and International Relations (HPAIR) were put to the task of shaping policy for Malaysia.
Co-hosted by the World Bank Hub in Malaysia, the Impact Challenge was designed for HPAIR participants – comprising early-career youth or students from Malaysia and around the world – to try their hand at policymaking. Within two hours, teams came up with policy solutions to address issues in Malaysia’s digital economy, based off the Hub’s flagship report – the Malaysia Economic Monitor.

For 25-year-old Rahul Saxena from India, this was a rare opportunity for youth voices to be heard. “Policies have long-lasting impacts that affect the youth but policymakers rarely include them as a key stakeholder. I believe getting youth on board is important as we have direct connection to the issues at hand, and can form policies that respond to that,” he said. Rahul and his teammates were the winners of the Impact Challenge.

Creating policy solutions for the digital economy, however, is no small matter. As Malaysia works toward crossing the high-income threshold, the digital economy is poised to be one of the key contributing factors for progress.

**Malaysians are already one of the most digitally-connected societies in the world, and 80% have access to the Internet, mainly through mobile networks. But the country falls behind international comparators in terms of digital adoption by businesses.**

Therefore, the winning team worked on a key issue in Malaysia – making payment transactions digital. For Phoebe Wang, 19, this was a very relevant challenge for her. “In Hong Kong, where I’m from, we still rely heavily on cash to make payments. But when I was overseas, I found out that no one would accept cash. I also discovered then that digital payments were so much easier and convenient! It’s great that I get the opportunity to try creating policies for issues directly affecting our lives,” she said.

The winning team created a pitch that focused on safe and cashless modes of transactions to enhance digital adoption by businesses. The team provided key initiatives to develop safe digital payment infrastructures, promote partnerships with businesses, and establish taxation provisions to encourage businesses to go digital.

Other pitches included a range of policy tools to boost the digital economy. This involved measures to enhance competition in the broadband market, upgrade existing infrastructure for lower prices and better quality, and improve access to the Internet for rural communities. Teams were closely guided by mentors from the World Bank and were then prepped to present their pitch to a panel of top judges from the Bank.

“This experience allowed me great insights into the world of development policy. I have a newfound responsibility to work on improving conditions for the betterment of society,” said
Jordyn Hawkins-Rippie, 25, who is also a Fulbright scholar from the United States. “I really enjoyed receiving feedback from the World Bank mentors and judges, and this has piqued my interest in international affairs,” he added.

“The Malaysia Economic Monitor is a widely-read report amongst government counterparts and policymakers. This is why it’s particularly exciting to see it through the lens of the youth as they are a very digitally-savvy and well-connected group of people,” said Richard Record, Lead Economist for Malaysia after the judging process. “What stood out for us was how specific the winning team’s pitch was. It took a different turn from other pitches and provided viable solutions for a key issue in the digital economy.”

Youth engagements continue to be a key focus of the World Bank Hub in Malaysia to broaden the reach, awareness, and understanding of the Bank’s work in the country. Each year, the Hub embarks on collaborations with youth groups as knowledge partners to engage them in policy and development issues in Malaysia.

As the digital economy will only continue to feature more prominently in the lives of the youth, providing them avenues to weigh in on policies affecting them is crucial to sustain youth empowerment.

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