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ECONOMIC MANAGEMENT AND PROSPECTS

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1 | ECONOMIC MANAGEMENT AND PROSPECTS

Overview

Unveiling several policies and strategies since helming the administration of the new Malaysia, the Government has set the scene for Malaysia to regain its status as an Asian Tiger. Topping the list are efforts in adopting the principles of competency, accountability and transparency (CAT) across the whole spectrum of the Government. Various initiatives have been implemented to institute reforms and improvement across the board, enabling the nation to regain the trust and confidence of the people. The reform agenda has restored Malaysia's image globally.

With uncertainties spilling across the world economy, global growth which decelerated from its peak in mid-2018, is expected to be modest in 2019 and improve slightly in 2020. Despite the challenging environment, Malaysia's economy grew 4.7% in the first half of 2019. This is a commendable achievement, considering the significant challenges in addressing various inherited issues which limit the ability of the Government to implement initiatives effectively in driving the economy. The resilient growth is a testament of strong fundamentals and diversified structure of the domestic economy. The progress is reinforced with positive reviews by various international bodies on the performance of the Malaysian economy. Of significance, in August 2019, Fitch Solutions revised Malaysia's growth forecast upwards for 2019 from 4.2% to 4.6%, following a stronger-than-expected performance in the first half.

In addition to the uncertainty in the global environment, among the most critical challenges faced by the Government in managing the economy is the changing demand of the industries as well as various stakeholders and compounded by the nation's substantial debt and liabilities. Despite these challenges, the Government aspires to fulfil its promises to the people through various initiatives, including the Shared Prosperity Vision 2030.

The Vision sets a new economic direction to spearhead a sustainable, high technology and inclusive growth as well as ensuring a fair and equitable distribution of wealth to narrow the socioeconomic gaps. Embedded in the Vision are efforts to provide a conducive and supportive environment for businesses to prosper as well as to address the rising cost of living to improve the well-being of the people.

Various efforts have been made to elevate people's purchasing power. On 1 September 2018, the Sales Tax and Service Tax (SST) was enforced while on 1 January 2019, the minimum wage was standardised at RM1,100 nationwide. These measures were aimed at benefitting the people, particularly the B40 households. To provide better and broader coverage of social safety net for the people, the Government implemented programmes such as the Employees Provident Fund Contribution Scheme for Housewives (i-Suri) which received a positive response from the people. Other measures to assist the B40 group include the introduction of MySalam on 24 January 2019. This scheme aims at providing affordable public healthcare protection. Furthermore, the Cost of Living Aid (BSH) was improved to benefit the needy.

The Government also launched the National Anti-Corruption Plan 2019 – 2023 on 29 January 2019. The plan inculcates good governance, integrity and zero-tolerance towards corruption among all Malaysians. These initiatives augur well for Malaysia in its efforts to become a developed and dignified nation.

Outlook

Global Economy

The global economy is expected to grow at a slower pace of 3.2% in 2019 before improving to 3.5% in 2020 (IMF, 2019). The growth will mainly be supported by stronger performance in emerging market and developing economies

(EMDEs) which is expected to increase from 4.1% in 2019 to 4.7% in 2020. Meanwhile, growth in advanced economies is forecast to rise at a slower pace from 1.9% in 2019 to 1.7% in 2020.

Among advanced economies, the US is expected to record robust growth in 2019 before slowing down in 2020 due to the winding down of fiscal stimulus as well as on-going inward-looking trade policies. Growth in the euro area is expected to moderate in 2019 due to weaker industrial production and is projected to grow marginally in 2020 as industrial activities regain momentum. Meanwhile, in the UK, the uncertainty caused by Brexit continues to impact business confidence and domestic demand. However, growth in 2020 is expected to stabilise after Brexit on 31 October 2019. Japan's growth in 2019 is anticipated to pick up slightly, supported by private consumption and investment while in 2020 it is projected to moderate following higher consumption tax and sluggish exports.

EMDEs is projected to grow at 4.1% in 2019, mainly due to slower external demand and investment following the impact of tariffs. In 2020, growth in major EMDEs is expected to further improve by 4.7% after recovering from the effect of financial market pressures. China's GDP is expected to grow at a slower pace of 6.2% in 2019 and moderate further to 6% in 2020, mainly due to structural slowdown and escalation of trade tensions. Meanwhile, India's economy is projected to remain robust at 7% in 2019 and increase marginally to 7.2% in 2020 attributed to strong domestic demand amid fiscal stimulus and structural reforms. ASEAN economy is forecast to grow by 4.9% in 2019 and 5% in 2020 primarily due to robust domestic demand. ASEAN is also expected to benefit from China's domestic market and rising per capita income through its exports and investment.

Global inflation is anticipated to be sustained at 3.6% for both 2019 and 2020. Inflation in advanced economies is expected to be at 1.6% in 2019 and 2% in 2020. Meanwhile, inflation in EMDEs is projected at 4.8% in 2019 and 4.7% in 2020 due to slower wage growth. World trade growth is expected to moderate to 2.5% in 2019 amid deepening trade tensions between

the US and China and improve to 3.7% in 2020 backed by robust GDP growth in EMDEs (IMF, 2019). Meanwhile, global FDIs are expected to rise 15% to USD1.5 trillion in 2019, mainly due to higher cross-border merger and acquisitions and greenfield investment.

Domestic Economy

The prospect of the Malaysian economy remains robust amid increasing uncertainties in the external environment. Real GDP is expected to grow by 4.7% in 2019 and 4.8% in 2020. The growth is underpinned by resilient domestic demand, particularly household spending following stable labour market and low inflation. Meanwhile, private investment is expected to grow at a slower pace in 2019 and gain traction in 2020 following the resumption of infrastructure projects coupled with ongoing capital spending in the services and manufacturing sectors. Favourable private sector expenditure activity will offset the impact of lower public expenditure in 2019. However, economic growth is expected to rebound in 2020 with improvement in public corporations' capital outlays.

On the supply side, the services and manufacturing sectors will continue to be the main contributors to economic growth. The services sector, driven by the activities of the wholesale and retail trade, information and communications, as well as finance and insurance sub-sectors, is projected to remain firm backed by robust household spending. The manufacturing sector is expected to grow at a slower pace in 2019 due to E&E downcycle and is anticipated to pick up in 2020, supported by better semiconductor outlook, especially during the second half of the year. The agriculture sector is projected to expand following higher production of crude palm oil (CPO) and natural rubber, while the mining sector is expected to increase supported by higher production of natural gas. Similarly, the construction sector is anticipated to improve attributed to activities in civil engineering.

In 2019, exports are expected to expand moderately in line with the slowdown in global economic and trade performance. However, the forecast for 2020 shows a gradual pick up

attributed to the projected recovery in global trade activities. The current account surplus in 2019 is projected to widen following the increase in the net exports of goods and services. In 2020, the current account surplus is expected to narrow underpinned by rising imports coupled with widening deficits in services and income accounts.

Monetary and Financial Developments

Accommodative monetary policy stance will continue to support economic growth in an environment of low inflation and stable financial conditions. Money and foreign exchange markets, as well as intermediation activities, are expected to remain vibrant and anchor monetary operations. The banking sector is expected to remain robust and orderly, supported by ample liquidity and strong capital buffers. Meanwhile, the capital market will be resilient, driven by well-developed infrastructure and instruments. However, external factors which include the US-China trade tension, uncertainty over the pace of global growth and the volatility in the global financial markets may weigh on banking and capital market performance.

Opportunities and Challenges

As a small and open economy, Malaysia faces various challenges. Global concerns such as heightened trade tension and uncertainty over the Brexit continue to persist. Locally, lack of access to affordable housing, worsening environmental condition and insufficient employment opportunities among graduates are some of the concerns. Other issues include the slow progress of Bumiputera participation in various programmes and the need for quality healthcare services. In terms of industry, volatility of smallholders' earnings, lack of dynamism in the tourism industry and slow adoption of technology continue to drag the nation's economic progress. Besides, poor connectivity, the gradual transition of E&E industries to high value-added activities and inability to secure financing

are other issues of concern. Realising this, the Government will intensify its efforts to address the concerns of the people as well as reinvigorate the economy.

Affordable Housing

Home ownership, particularly affordable housing remains the central concern among households. Many find it challenging to own affordable houses. In the first half of 2019, a total of 32,810 residential units valued over RM19.8 billion remained unsold (NAPIC, 2019). The mismatch is mainly due to property prices rising faster than household income. Khazanah Research Institute (2019) reports that from 2012 to 2014, the median house price increased by 23.5%,¹ from RM175,000 to RM280,000, while the median household income grew at a slower rate of 11.7%.

Environmental Degradation

While economic development is instrumental in enhancing the well-being of the people, environmental protection is equally important. Issues such as climate change, environmental degradation and over-reliance on non-renewable energy resources continue to be a concern. Currently, Malaysia is only ranked eighth among 13 greenest Asia-Pacific countries (ValueChampion, 2019). Malaysia performed poorly in three dimensions, namely plastic waste management (11th), carbon dioxide emissions (10th) and electricity production from renewable resources (10th). In terms of renewable energy, Malaysia has yet to leverage its natural assets as it currently produces merely 0.7% of its energy from renewable sources compared to Japan at 7.8%.

Employment Opportunities

Although Malaysia continues to record full employment, several issues remain. These include the mismatch between labour demand and supply, persistent unemployment among youth and fresh graduates as well as underemployment of skilled workforce. Besides, the economy still relies on low-skilled foreign workers, particularly in the manufacturing

¹ Compound Annual Growth Rate.

sector that hires 35.4% of total foreign workers, followed by construction (21.5%) and services (15.5%) sectors. This condition results in a disadvantage to domestic job seekers. At the same time, the hiring of expatriates, particularly those in Category III with income between RM3,000 and RM4,999, denies employment opportunities for fresh Malaysian graduates in the skilled job category.

Bumiputera Economic Development

Despite various programmes implemented for the economic development of Bumiputera, the involvement of the community still lacks in various aspects. By and large, Bumiputera entrepreneurs face financial constraints that limit their investment potential in businesses. Furthermore, the mean monthly household income of Bumiputera in 2016 was RM6,267, lower than the Chinese Malaysians (RM8,750) and Indian Malaysians (RM7,150) (DOSM, 2017). Meanwhile, Bumiputera graduates experience difficulties in securing suitable jobs due to several factors, including poor interpersonal skills and lack of English proficiency. In addition, there is a mismatch between the skills required by industries and qualification attained by Bumiputera graduates. Concurrently, Bumiputera's participation in skilled and professional occupations, particularly at the decision-making and managerial levels remains low.

Quality Healthcare

Provision of quality healthcare services is one of the main priorities of the Government. The main challenge in achieving this objective is the escalating cost of healthcare vis-à-vis constraint on Government finance. In 2018, Malaysia recorded the second-highest healthcare inflation in Asia after Viet Nam (Marsh & McLennan, 2019). Besides, the Auditor General's Report 2018 highlights that only 58.7% to 74.5% of patients were treated in less than four to six hours in the Emergency and Trauma Department in public hospitals. Furthermore, Malaysia has the highest rate of diabetics in Asia and one of the highest in the world (IDF, 2017). The changing pattern of diseases, including those related to lifestyle and ageing population will

further increase the healthcare cost. This not only leads to increasing public expenditure but also impacts the economy.

Smallholders

In 2018, smallholders accounted for approximately 99% of 784,230 players in the commodity sector. However, the prolonged low commodity prices affect the livelihood of smallholders negatively. In the first eight months of 2019, the average price of rubber was RM5.85 per kilogram (kg), higher than in 2018 (January-August: RM5.51) but significantly lower than the average price of RM7.51 during the same period in 2017. Meanwhile, the average price of palm oil during the first eight months of 2019 was RM1,992 per tonne, much lower than the average price in 2018 (RM2,362).

Furthermore, demand for palm oil products is affected by negative campaigns in developed countries, particularly the EU, thus posing downside risk to the industry. In terms of rubber production, even though smallholders cultivate more than 90% of total plantation areas, the average yield per hectare is 9% lower than estates. The underperformance is mainly due to lack of access to high-quality planting materials and knowledge on best pre- and post-harvesting practices.

Tourism Industry

The tourism industry is one of the primary drivers of economic growth, accounting for 15.2% of GDP in 2018. Malaysia was ranked 15th in terms of tourist arrivals and 21st among 50 countries in terms of tourism receipts (UNWTO, 2019). Although tourism receipts improved by 2.4% between 2017 and 2018, statistics from Tourism Malaysia indicates a declining trend in tourist arrivals in Malaysia since 2017. The Travel & Tourism Competitiveness Report 2019 highlights that Malaysia has dropped three places to 29th position in 2018 compared to 26th in 2017 (WEF, 2019). While Malaysia is blessed with beautiful and unique natural assets, multiracial and cultural diversity as well as a variety of food and entertainment, the tourism industry has yet to achieve its true potential.

Adoption of Technology

Technological development is evolving rapidly, thus requiring nations to adapt to the changing trends. However, the adoption of technology, particularly among SMEs remains low in Malaysia. Low level of research, inadequate access to the talent pool, and lack of capital for strategic planning and technological utilisation

are the main factors hindering the adoption of technology. In addition, a conducive environment is necessary for automation and the adoption of creative content, smart manufacturing and the Internet of Things (IoT), the essential elements of IR 4.0. Lack of technology-related content in the school curriculum further hampers the development of talent for future jobs.

Feature Article 1.1

Total Factor Productivity in Malaysia

Introduction

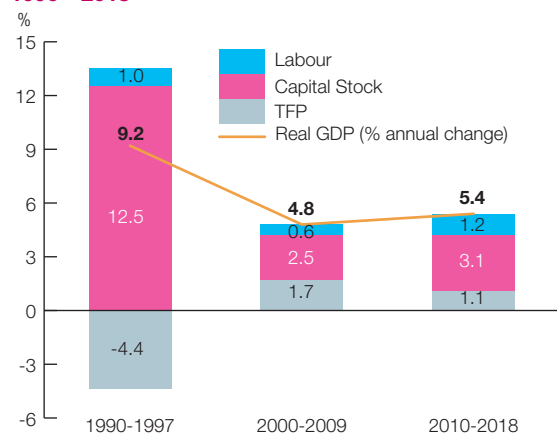
Growth theory postulates that three elements contribute to the production of goods and services, namely labour, capital and Total Factor Productivity (TFP). TFP, also known as multifactor productivity or Solow residual, includes all other factors affecting growth that is not explained by labour and capital (Solow, 1957). Several approaches have been employed by researchers to understand TFP. These approaches range from the perspective that changes in technology are pivotal, where better technology such as computerisation or automation improves productivity. Others view externalities such as governance and weather conditions may also influence TFP. Yet, some regard changes in the composition of production and the adoption of low-cost production methods as essential factors. As researchers continue to explore the role of TFP in promoting economic growth, there is a need to examine the main determinants of TFP in Malaysia.

During the period between 1990 and 1997, capital accumulation and labour drove economic growth in Malaysia with a negative contribution from TFP. After the 1997 Asian financial crisis, the Government has undertaken several measures to enhance TFP in addition to boosting investment and improving labour force participation rate. Despite these efforts, the two input factors still led growth, with TFP contributing only 1.1% from 2010 to 2018.

Depending solely on capital accumulation is insufficient to support long-term economic growth. TFP was the main driving force for many countries transitioning into advanced and high-income economies. Therefore, it is imperative to boost TFP as the primary source of growth. Moreover, TFP-led growth will ensure more equitable and sustainable growth as capital and labour are subject to diminishing returns and market volatility.

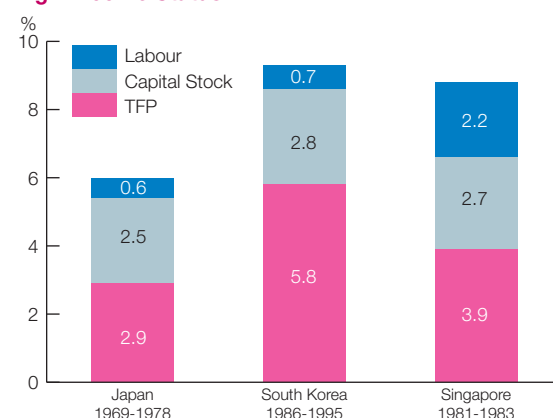
The factors affecting TFP are varied and often indefinite due to its nature as a residual. Kim & Loayza (2019) have identified five main determinants for TFP growth, namely innovation, education, market efficiency, physical infrastructure, and institutional infrastructure. The study utilised various development indicators to construct indices for the determinants of TFP. The findings highlight that for OECD countries, market efficiency contributes the most while for developing countries, education is the main contributor to TFP. This article investigates the determinants of TFP in Malaysia and identifies the significant factors contributing to TFP.

Figure 1.1.1. Malaysia's Average Growth Contribution 1990–2018



Source: Ministry of Finance, Malaysia (estimates).

Figure 1.1.2. Average Growth Contribution for Japan, South Korea and Singapore Before Achieving High-Income Status



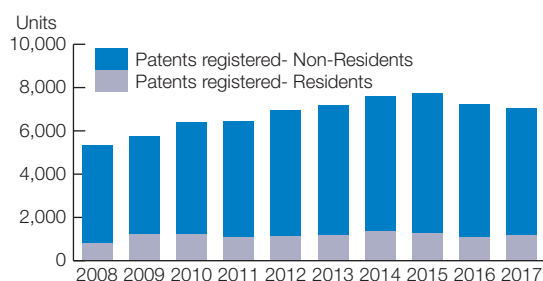
Source: Ministry of Finance, Malaysia (estimates).

Determinants of TFP in Malaysia

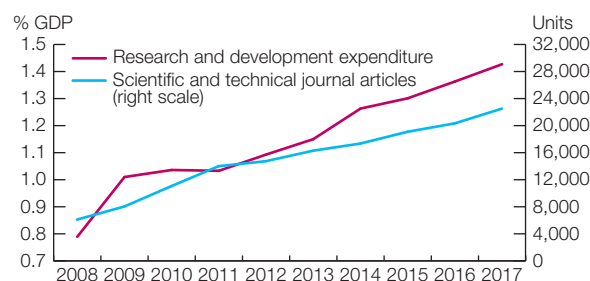
Innovation

Innovation, which is the process of translating an idea or invention into goods or services that creates value, is one of the most cited factors that contribute to TFP. The implementation of Science, Technology and Innovation (STI) Policy in 2013 is one of the programmes to promote innovation in Malaysia. Furthermore, the Government's initiative to embrace IR 4.0 is expected to enhance innovation in the country. Innovation indicators such as the public and private expenditure on research and development (R&D), the number of patent applications by residents and non-residents and the number of publications in scientific and technological journals indicate the level of innovation in the country. From 2008 to 2017, public and private expenditure on R&D and the number of publications in scientific and technological journals showed an increasing trend. Meanwhile, the total number of patents registered also experienced a similar pattern but declined after 2015.

Figure 1.1.3. Indicators for Innovation 2008–2017



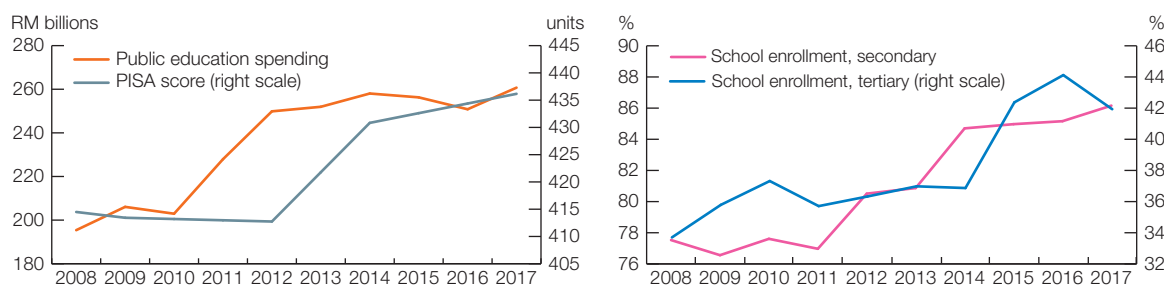
Source: World Bank.



Education

Endogenous growth theory suggests that investment in human capital, mainly education is one of the significant contributors to economic growth. In 2019, the education subsector received the highest allocation accounting for 20.4% of the total budget. This allocation signifies the Government's commitment to enhancing human capital. Indicators such as expenditure on education, PISA score,¹ secondary school enrolment rate and percentage of the population with tertiary education are often used to reflect the development of human capital. Overall, all indicators showed an improving trend over an extended period.

**Figure 1.1.4. Indicators for Education
2008–2017**

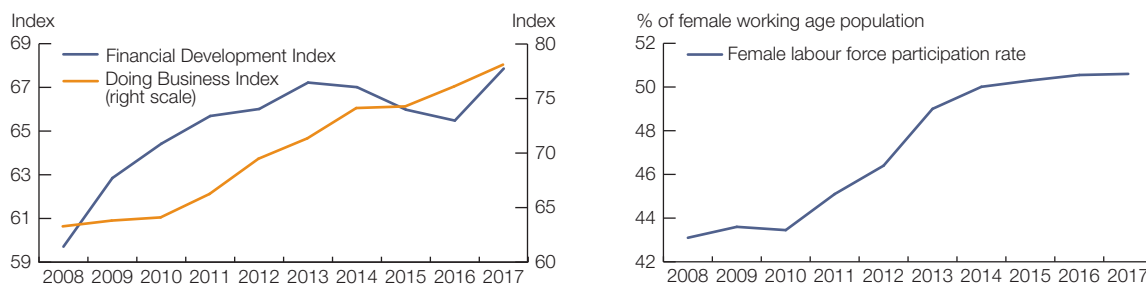


Source: Ministry of Finance, Malaysia; Organisation for Economic Co-operation and Development and World Bank.

Market Efficiency

Market efficiency reflects the optimal allocation of resources across sectors and firms. The Government is committed towards market reforms as it revamps and rectifies mismanagement practices to ensure better transparency and accountability. The reform will enhance business confidence and reduce the cost of doing business. Indicators often applied to gauge market efficiency are the Financial Development Index,² World Bank Doing Business Index³ and female labour force participation rate.⁴ Generally, the indicators improved between 2008 and 2017 with a slight disruption in Financial Development Index between 2015 and 2016 due to lower stock market activities.

**Figure 1.1.5. Indicators for Market Efficiency
2008–2017**



Source: International Monetary Fund and World Bank.

¹ Programme for International Student Assessment.

² Financial Development Index summarises how developed financial institutions and financial markets are in terms of depth, access and efficiency (IMF).

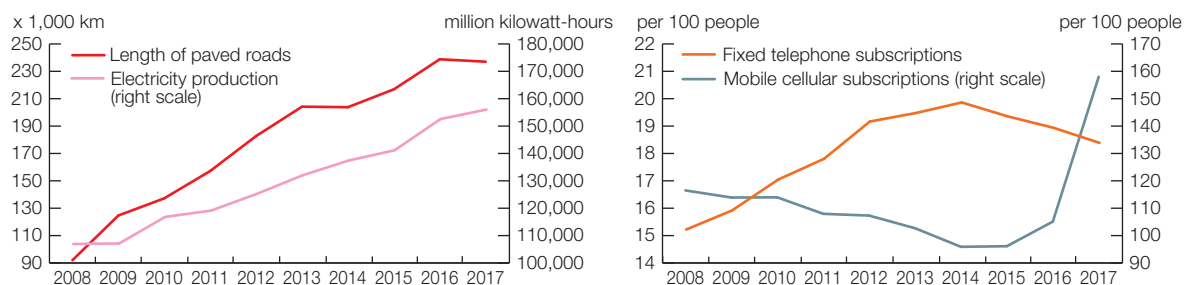
³ World Bank Doing Business Index presents quantitative indicators on business regulation and the protection of property rights.

⁴ Barro (2001) found that the incorporation of female workers in the labour market has the potential to increase TFP.

Physical Infrastructure

Physical infrastructure is an essential element in a nation's development. Improved connectivity through the utilisation of highways and railroads reduces travelling time, increases productivity and enhances the quality of life. However, coverage and quality of physical infrastructure are also crucial for assessing its effectiveness. Examples of proxies used to measure physical infrastructures are fixed and mobile telephone subscriptions, length of paved roads as well as electricity production. These indicators displayed improving trends with some variation in fixed and mobile telephone subscriptions.

Figure 1.1.6. Indicators for Physical Infrastructure 2008–2017

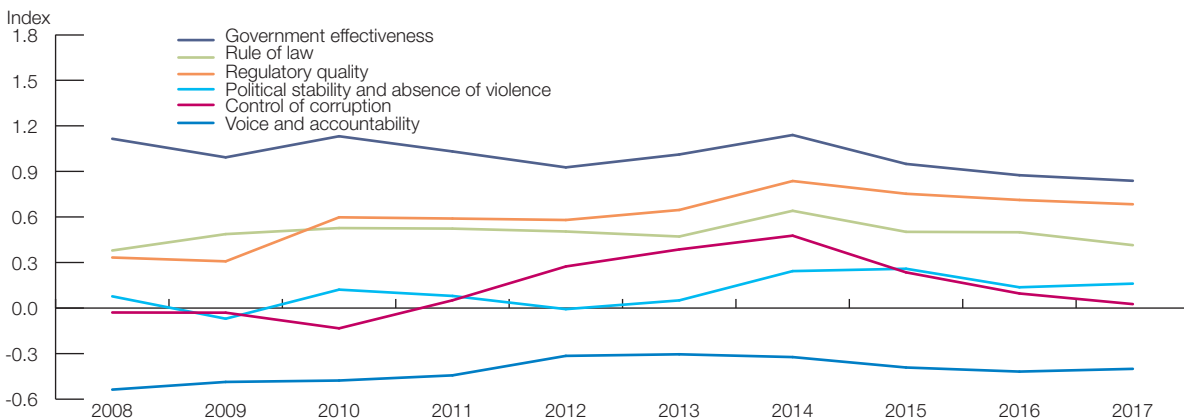


Source: Department of Statistics; Ministry of Finance, Malaysia and World Bank.

Institutional Infrastructure

Institutional infrastructure refers to the role of the Government in safeguarding efficient usage of resources and quality public service delivery to ensure efficiency and optimality for long-term economic growth. Towards this end, the Government has introduced several reforms including improvement on the election process and Election Commission. The Government has also launched the National Anti-Corruption Plan 2019-2023 as one of the initiatives to combat corruption. The World Bank's Worldwide Governance Indicators (WGI) is a proxy for institutional infrastructure. WGI consists of six indicators, namely voice and accountability, control of corruption, government effectiveness, political stability and absence of violence, regulatory quality and the rule of law. Over an extended period, all indicators continued to improve but recorded opposite trends since 2015.

Figure 1.1.7. Indicators for Institutional Infrastructure 2008–2017



Source: World Bank.

Analysis

Using the Dominance Analysis,⁵ this article estimates the strength of the relationship between TFP and its determinants. Indices were constructed to represent each of the five determinants by combining the relevant indicators using the interaction effect.⁶ The results indicate that the highest contributor among the determinants to the variance in TFP growth is innovation, followed by market efficiency, education, physical infrastructure and institutional infrastructure. The findings resonate well with the Government's efforts in encouraging innovation, promoting market efficiency, strengthening the nation's education system, improving infrastructure and enhancing institutional effectiveness and transparency.

Table 1.1.1. Contribution of Each Determinant of TFP in Malaysia

Determinants	Contribution ⁷
Innovation	0.2934
Market Efficiency	0.2591
Education	0.2333
Physical Infrastructure	0.2016
Institutional Infrastructure	0.0126

Source: Ministry of Finance, Malaysia (estimates).

Conclusion

TFP is a vital factor for sustaining long-term economic growth. Of significance, this study indicates that innovation has the highest impact on TFP, followed by market efficiency, education, physical infrastructure and institutional infrastructure. Accordingly, the Government will continue to formulate and implement appropriate policies based on these priorities to further improve Malaysia's TFP growth to realise the nation's Shared Prosperity Vision 2030.

⁵ Dominance Analysis is a method used to compare the relative importance of predictors in multiple regression (Azen & Budescu, 2006).

⁶ An interaction effect is the simultaneous effect of two or more independent variables on at least one dependent variable in which their joint effect is significantly greater (or significantly less) than the sum of the parts (Lavrakas, 2008).

⁷ Decomposition of the total explained variance of the TFP growth requires total contribution to be equal to unity.

Logistics Performance

As a trading nation, the efficiency of the transport and logistics industry is vital in Malaysia's aspiration to attain higher productivity and faster economic growth through better connectivity. However, Malaysia's performance in the logistics industry has deteriorated, as indicated by the decline in the ranking of the Logistics Performance Index (LPI) (World Bank, 2018). According to the LPI, Malaysia's ranking fell to 41st in 2018 from 32nd in 2016. The main reasons for the decline include inefficiency of customs clearance, lack of quality in the trade and transport-related infrastructure as well as low ability in tracking and tracing consignments. In contrast, regional peers such as Thailand and Viet Nam improved to 32nd and 39th positions in 2018 from 45th and 64th in 2016, respectively.

E&E Industry

In 2018, E&E remained as one of the key industries in the economy, contributing 28.3% to the manufacturing sector with more than 550,000 employments. It was also the most significant contributor to exports, earning RM381.5 billion or 38% of total exports. Currently, the rising cost of doing business is one of the issues faced by the E&E industry. Despite several initiatives taken to minimise and simplify procedures, bureaucracy at various levels of Government still remains a problem. These factors influence companies in their investment and expansion decisions. Another concern in the E&E industry is the disruption of business models following rapid changes in technology, amplified by the lack of a supportive ecosystem and regulatory framework.

Access to Financing

About 98.5% of registered business establishments in Malaysia comprised SMEs, accounting for 37.1% of GDP and 66% of total

employment (SME Corp., 2018). However, access to financing continues to be a challenge for SMEs and start-ups. This is mainly attributable to inadequate cash flows to meet repayment obligations, complex application processes, insufficient collateral and documentation, as well as high risk related to business ventures. More than 70% of SMEs' financing needs are sourced internally or from personal savings, and only about 30% is obtained from banks, development finance and microcredit institutions. Essentially, the growth and development of SMEs critically depend on their ability to secure finance for business operations and expansion.

Strategic Initiatives – 2020 Budget

Global growth is expected to improve marginally from 3.2% in 2019 to 3.5% in 2020. Despite the anticipated improvement, risks are tilted to the downside premised on unresolved trade tensions, policy uncertainties and disinflationary pressures. Against this backdrop, strategic initiatives in 2020 are targeted at mitigating the impact of external risks on domestic economy. Towards this end, the 2020 Budget will focus on several areas including economic opportunities, human capital, inclusivity, and public institutions and public finances.

The Government is committed to make Malaysia an attractive destination for high technology and high value-added industries. The Budget proposes several measures to catalyse the economy through an improved public private partnership (PPP), extensive access to SME financing and incentivising faster adoption of IR 4.0. Businesses are expected to benefit from the Government's efforts in facilitating the ease of doing business and leveraging opportunities in new priority areas, including green growth.

Feature Article 1.2

Structural Changes in Malaysia's Economy: An Input-Output Analysis**Introduction**

Since independence, Malaysia has evolved from a low to an upper-middle-income economy after successfully implementing various growth models along the way. During the early years of the post-independence period, the economy was heavily dependent on primary commodities with agriculture as the largest sector. The Government started the industrialisation phase in the early 1970s to reduce dependency on commodities and diversify the economy to enhance income and wealth generation. Concerted efforts were taken to promote and accelerate the expansion of the manufacturing sector. This signalled the structural shift from agriculture to a manufacturing-based economy.

The economy was further transformed from assembly-intensive manufacturing to an integrated manufacturing and related services with the implementation of the Second Industrial Master Plan 1996 – 2005 (IMP2). The roll-out of the Third Industrial Master Plan 2006 – 2020 (IMP3) sets the path towards the evolution of the economy into higher value-added and technology-driven manufacturing and services sectors. While moving towards the Shared Prosperity Vision 2030, Malaysia needs to continuously reformulate its growth strategies by taking into consideration the development of industries. Based on the input-output table,¹ this article examines the changes in Malaysia's economic structure in terms of output, value-added, taxes and subsidies.

Changes in Economic Structure

The input-output table provides comprehensive information on the structure of the economy, particularly on the total value of goods and services produced by different industries. At the same time, it provides information on the goods and services that are consumed as intermediate consumption by industries, final consumption and exports. Comparison of the input-output table of different years provides information on the structural changes in the economy.

Output

The value of gross output generated by the economy rose from RM1.6 trillion in 2005 to RM2.1 trillion in 2010 and subsequently to RM2.8 trillion in 2015 with a growth² of 5.3% and 5.9%, respectively. In 2005, the manufacturing sector was the most significant contributor to national output, generating 56.1% of gross output followed by services and mining sectors with a share of 30.4% and 5.9%, respectively. However, the services sector experienced a faster growth rate of 11.6% per annum with its share expanding from 30.4% in 2005 to 40.7% in 2010, in line with the Government's continued focus on liberalising the services sector in the Ninth Malaysia Plan (9MP). In contrast, with a marginal growth of only 0.1% during the period, the manufacturing output share declined from 56.1% to 43.6%. Other sectors experiencing changes include construction with the percentage increasing from 3.8% to 4.4% while agriculture, fishery and forestry expanding from 3.7% to 6.1%. Meanwhile, mining and quarrying moderated from 5.9% to 5.2%.

¹ Input-Output Table 2005, 2010 and 2015.

² Compound Annual Growth Rate (CAGR).

Table 1.2.1. Output by Sector 2005, 2010 and 2015

Sector	2005		2010		CAGR (2005 - 2010) (%)	Output (RM million)	2015		CAGR (2010 - 2015) (%)
	Output (RM million)	Share (%)	Output (RM million)	Share (%)			Share (%)		
Manufacturing	899,165	56.1	905,133	43.6	0.1	1,164,768	42.2	5.2	
Mining and Quarrying	95,410	5.9	107,549	5.2	2.4	130,226	4.7	3.9	
Construction	61,070	3.8	91,362	4.4	8.4	181,342	6.6	14.7	
Agriculture, Fishery and Forestry	60,000	3.7	126,651	6.1	16.1	131,600	4.8	0.8	
Services	488,262	30.4	843,476	40.7	11.6	1,154,495	41.8	6.5	
Transportation & Storage and Information & Communication	119,451	7.4	165,051	8.0	6.7	229,013	8.3	6.8	
Government Services	79,327	4.9	111,936	5.4	7.1	175,616	6.4	9.4	
Wholesale and Retail Trade	77,493	4.8	199,972	9.6	20.9	302,031	10.9	8.6	
Finance and Insurance	74,330	4.6	145,528	7.0	14.4	120,404	4.4	-3.7	
Business & Private Services	43,055	2.7	87,844	4.2	15.3	124,121	4.5	7.2	
Utilities	35,149	2.2	47,319	2.3	6.1	64,846	2.3	6.5	
Real Estate and Ownership of Dwellings	31,847	2.0	38,145	1.8	3.7	58,317	2.1	8.9	
Accommodation and Food & Beverages	27,610	1.7	47,681	2.3	11.5	80,148	2.9	10.9	
Total Output	1,603,907	100.0	2,074,171	100.0	5.3	2,762,431	100.0	5.9	

Note: Total may not add up due to rounding.
Source: Department of Statistics, Malaysia.

Manufacturing remained the most significant sector with a growth of 5.2%, albeit declining share from 43.6% in 2010 to 42.2% in 2015. However, with a growth of 6.5%, the services sector increased its share to 41.8% from 40.7%. Likewise, the construction sector grew by 14.7% with its share rising from 4.4% to 6.6%. While the growth of agriculture, fishery and forestry as well as mining and quarrying rose by 0.8% and 3.9%, its share declined to 4.8% and 4.7%, respectively.

Value-Added by Sector

In addition to output, an analysis by value-added helps to determine the sectors that are driving the economy. The value-added is the difference between total output and production costs. As such, value-added measurement provides a more accurate analysis of the economic contribution of a particular sector as compared to an output analysis.

The total value-added in the economy increased from RM509.3 billion in 2005 to RM805.2 billion in 2010 and continued to grow to RM1.1 trillion in 2015 with a growth of 9.6% and 7%, respectively. Services, the most significant contributor with a share of 45.7% in 2005, grew to 52.9% in 2010. The sector recorded a rapid growth of 12.9% per annum driven mainly by wholesale & retail trade (16.2%), government services (15.8%) and business and private services (15.6%) sub-sectors. Meanwhile, the manufacturing value-added grew at only 4.1% per annum, with its share declining from 29.8% in 2005 to 23% in 2010. During the period, agriculture, fishery and forestry sector surpassed the performances of all other sectors with a growth of 16.3% and share expanding from 7.1% in 2005 to 9.6% in 2010. At the same time, the mining and quarrying sector grew at 4% per annum, and its share declining from 14.4% to 11.1%.

Table 1.2.2. Value-Added by Sector 2005, 2010 and 2015

Sector	2005		2010		CAGR (2005 - 2010) (%)	2015		CAGR (2010 - 2015) (%)
	Value-added (RM million)	Share (%)	Value-added (RM million)	Share (%)		Value-added (RM million)	Share (%)	
Manufacturing	151,544	29.8	184,881	23.0	4.1	247,195	21.9	6.0
Mining and Quarrying	73,224	14.4	89,211	11.1	4.0	102,218	9.1	2.8
Agriculture, Fishery and Forestry	36,156	7.1	77,038	9.6	16.3	97,462	8.6	4.8
Construction	15,810	3.1	27,996	3.5	12.1	52,836	4.7	13.5
Services	232,537	45.7	426,035	52.9	12.9	628,422	55.7	8.1
Wholesale and Retail Trade	53,172	10.4	112,409	14.0	16.2	179,602	15.9	9.8
Government Services	33,823	6.6	70,496	8.8	15.8	99,483	8.8	7.1
Business & Private Services	22,042	4.3	45,601	5.7	15.6	63,228	5.6	6.8
Finance and Insurance	37,820	7.4	73,827	9.2	14.3	75,571	6.7	0.5
Transportation & Storage and Information & Communication	40,585	8.0	58,011	7.2	7.4	101,273	9.0	11.8
Real Estate and Ownership of Dwellings	20,439	4.0	24,339	3.0	3.6	43,401	3.8	12.3
Utilities	13,865	2.7	21,716	2.7	9.4	31,688	2.8	7.9
Accommodation and Food & Beverages	10,791	2.1	19,636	2.4	12.7	34,176	3.0	11.7
Total Value-Added	509,272	100.0	805,163	100.0	9.6	1,128,133	100.0	7.0

Note: Total may not add up due to rounding.
Source: Department of Statistics, Malaysia.

The services sector continued to grow steadily by 8.1% in 2015, with its share expanding to 55.7% from 52.9% in 2010. In contrast, during the same period, the manufacturing sector grew by 6% with its share declining to 21.9% from 23%. Mining and quarrying sector grew by 2.8% in 2015 while agriculture, fishery and forestry rose by 4.8%. However, the share for both sectors declined from 11.1% to 9.1% and 9.6% to 8.6%, respectively. At the same time, the construction sector grew at 13.5% with its share increasing from 3.5% to 4.7%.

Value-Added by Industry

In terms of industry, out of RM509.3 billion produced in 2005, crude oil and natural gas accounted for 14% of value-added followed by wholesale & retail trade, repair of motor vehicles and motorcycles (10.4%) and computers, peripheral, office equipment and machinery (4.6%). The other top ten industries were monetary intermediation (3.8%), telecommunications (3.3%), electronic components and boards (3.1%), education (2.8%), insurance/takaful and pension funding (2.8%), oil palm (2.7%) and ownership dwellings (2.1%). The top ten industries accounted for RM252.6 billion or 49.6% of value-added.

In 2010, wholesale & retail trade, repair of motor vehicles and motorcycles industry emerged as the new driver of the economy, growing at 16.2% with a share of 14% of total value-added. Other top ten industries were crude oil and natural gas (2.9%; 10.2%); oil palm (27.3%; 5.7%); monetary intermediation (11.8%; 4.2%); education (15%; 3.5%); electronic components and boards (6.3%; 2.7%); and telecommunications (1.6%; 2.3%). In the meantime, public administration was a new entrant in the top ten in 2010, rising from 15th position to fifth. The industry recorded a growth of 25.7% with a share of 3.6%. Other industries that performed well in terms of value-added were communication equipment and consumer electronics (75.5%; 3.6%) followed by coke and

refined petroleum products (36.7%; 2.8%). In 2010, the top ten industries accounted for 52.6% of value-added and grew at 10.7% per annum. However, computers, peripheral, office equipment and machinery industry which was among the top ten industries in 2005 showed a negative growth of 21.8% in 2010 and was ranked at 29th position.

Table 1.2.3. Value-Added by Industry 2005, 2010 and 2015

Industry	2005			2010				2015			
	Value-Added (RM million)	Rank	Share (%)	Value-Added (RM million)	Rank	CAGR (2005 - 2010) (%)	Share (%)	Value-Added (RM million)	Rank	CAGR (2010 - 2015) (%)	Share (%)
Crude Oil and Natural Gas	71,472	1	14.0	82,351	2	2.9	10.2	98,121	2	3.6	8.7
Wholesale & Retail Trade, Repair of Motor Vehicles and Motorcycles	53,172	2	10.4	112,409	1	16.2	14.0	179,602	1	9.8	15.9
Computers, Peripheral, Office Equipment and Machinery	23,239	3	4.6	6,781	29	-21.8	0.8	5,762	42	-3.2	0.5
Monetary Intermediation	19,537	4	3.8	34,136	4	11.8	4.2	44,834	3	5.6	4.0
Telecommunications	17,024	5	3.3	18,403	10	1.6	2.3	36,876	6	14.9	3.3
Electronic Components and Boards	15,810	6	3.1	21,485	9	6.3	2.7	28,701	9	6.0	2.5
Education	14,094	7	2.8	28,392	7	15.0	3.5	44,560	4	9.4	3.9
Insurance/Takaful and Pension Funding	14,069	8	2.8	17,058	11	3.9	2.1	14,626	21	-3.0	1.3
Oil Palm	13,631	9	2.7	45,493	3	27.3	5.7	38,164	5	-3.5	3.4
Ownership Dwellings	10,508	10	2.1	16,034	12	8.8	2.0	26,099	11	10.2	2.3
Public Administration	9,270	15	1.8	29,078	5	25.7	3.6	34,313	7	3.4	3.0
Communication Equipment and Consumer Electronics	1,729	57	0.3	28,762	6	75.5	3.6	17,267	16	-9.7	1.5
Coke and Refined Petroleum Products	4,753	27	0.9	22,727	8	36.7	2.8	32,678	8	7.5	2.9
Food and Beverages	6,351	23	1.2	15,202	14	19.1	1.9	26,755	10	12.0	2.4
Total Value-Added (Top 10 Industries)	252,556		49.6	423,236		10.7	52.6	564,604		6.1	50.0
Total Value-Added All Industries	509,272		100.0	805,163		9.6	100.0	1,128,133		7.0	100.0

Note: Total may not add up due to rounding.
Source: Department of Statistics, Malaysia.

The wholesale & retail trade, repair of motor vehicles and motorcycles industry continued to be the leading contributor to the economy in 2015 growing at 9.8% with a share of 15.9% of total value-added, followed by crude oil and natural gas (3.6%; 8.7%). Other top ten industries that recorded positive performance include monetary intermediation (5.6%; 4%); education (9.4%; 3.9%); telecommunications (14.9%; 3.3%); public administration (3.4%; 3%); coke and refined petroleum products (7.5%; 2.9%); electronic components and boards (6%; 2.5%); and food & beverages (12%; 2.4%). On the contrary, oil palm which was among the top ten industries in 2010 declined both in terms of growth and share (-3.5%; 3.4%) followed by communication equipment and consumer electronics (-9.7%; 1.5%).

Tax Collection

Total tax collected amounted to RM29.9 billion in 2005 and increased further to RM32.6 billion and RM52.9 billion in 2010 and 2015, respectively. Motor vehicles, trailers and semi-trailers contributed the highest taxes in 2005 amounting to RM10.4 billion or 34.7% of total taxes. This was followed by arts, entertainment and recreation (RM7.5 billion; 25%); tobacco products

(RM2.6 billion; 8.8%); coke and refined petroleum products (RM1.5 billion; 5.1%); other private services (RM1.4 billion; 4.5%); spirits, wines and liquors (RM1.3 billion; 4.4%); crude oil and natural gas (RM871.9 million; 2.9%); public administration (RM771.7 million; 2.6%); weapons, ammunition and special purpose machinery (RM487.2 million; 1.6%); and wiring devices, electric lighting equipment and other electrical (RM269.7 million; 0.9%). The top ten commodities contributed to 90.5% of the total taxes collected in 2005.

In 2010, taxes on motor vehicles, trailers and semi-trailers remained the largest contributor with a growth of 2.3% and share of 35.6%. Other top ten commodities were coke and refined petroleum products (28.9%; 16.5%); tobacco products (3.9%; 9.7%); spirits, wines and liquors (2%; 4.4%); forestry and logging (113.7%; 3.7%); and weapons, ammunition and special purpose machinery (10.3%; 2.4%). Following the enhancement and reclassification of 2010 input-output table, commodities, namely telecommunications, accommodation, professional and other financial services contributed RM3.9 billion or 12.1% of total taxes collected. The top ten commodities contributed RM27.6 billion or 84.5% of total taxes. Apart from reclassification, the Government's policy on promoting arts, entertainment and recreation resulted in a significant decline in taxes collected from this commodity from RM7.5 billion in 2005 (25%) to RM0.08 billion (0.2%) in 2010.

Table 1.2.4. Tax by Commodity 2005, 2010 and 2015

Commodity	2005			2010				2015			
	Tax (RM '000)	Rank	Share (%)	Tax (RM '000)	Rank	CAGR (2005 - 2010) (%)	Share (%)	Tax (RM '000)	Rank	CAGR (2010 - 2015) (%)	Share (%)
Motor Vehicles, Trailers and Semi trailers	10,386,674	1	34.7	11,626,024	1	2.3	35.6	13,160,869	1	2.5	24.9
Arts, Entertainment and Recreation	7,487,775	2	25.0	77,757	34	-59.9	0.2	125,104	57	10.0	0.2
Tobacco Products	2,620,918	3	8.8	3,171,232	3	3.9	9.7	5,170,116	2	10.3	9.8
Coke and Refined Petroleum Products	1,513,383	4	5.1	5,379,850	2	28.9	16.5	3,807,480	3	-6.7	7.2
Other Private Services	1,360,142	5	4.5	16,188	48	-58.8	0.1	158,677	53	57.9	0.3
Spirits, Wines and Liquors	1,302,637	6	4.4	1,441,159	5	2.0	4.4	2,734,805	4	13.7	5.2
Crude Oil and Natural Gas	871,873	7	2.9	-	-	-	-	1,810,983	6	-	3.4
Public Administration	771,717	8	2.6	-	-	-	-	-	-	-	-
Weapons, Ammunition and Special Purpose Machinery	487,220	9	1.6	793,798	9	10.3	2.4	428,551	21	-11.6	0.8
Wiring Devices, Electric Lighting Equipment and Other Electrical	269,686	10	0.9	-	-	-	-	27,382	89	-	0.1
Telecommunications	2,326	43	0.0	1,931,808	4	283.6	5.9	1,434,360	7	-5.8	2.7
Forestry and Logging	27,221	32	0.1	1,212,111	6	113.7	3.7	115,807	60	-37.5	0.2
Accommodation	-	-	-	853,508	7	-	2.6	1,131,767	9	5.8	2.1
Professional	-	-	-	800,023	8	-	2.5	2,502,372	5	25.6	4.7
Other Financial Services	15,382	37	0.1	351,174	10	86.9	1.1	387,912	26	2.0	0.7
Other General Purpose Machinery	55	55	0.0	-	-	-	-	1,251,504	8	-	2.4
Insurance/Takaful and Pension Funding	-	-	-	333,855	13	-	1.0	1,037,296	10	25.4	2.0
Total Tax (Top 10 Commodities)	27,072,026		90.5	27,560,687		0.3	84.5	34,041,552		4.3	64.3
Total Tax from All Commodities	29,923,882		100.0	32,612,514		1.7	100.0	52,904,089		10.2	100.0

Note: Total may not add up due to rounding.

Source: Department of Statistics, Malaysia.

Motor vehicles, trailers and semi-trailers continued to be the main contributor to tax collection in 2015 with a growth of 2.5% and a share of 24.9%, followed by tobacco products (10.3%; 9.8%). Other commodities contributing to tax collection include spirits, wines and liquors (13.7%; 5.2%); professional (25.6%; 4.7%); accommodation (5.8%; 2.1%); crude oil and natural gas

with a share of 3.4%; other general purpose machinery (2.4%); as well as insurance/takaful and pension funding (2%). Notably, coke and refined petroleum products and telecommunications which were ranked second and fourth in 2010 declined to third and seventh position in 2015, respectively. However, forestry and logging, which was ranked among the top ten in 2010, declined to 60th position with its growth declining by 37.5% and its share reducing to 0.2%.

Subsidy

The Government provides subsidies for six commodities, namely coke and refined petroleum products; vegetable & animal oils and fats (cooking oil); confectionery (sugar); grain mill products, starches and starch products (wheat flour); paddy; as well as fertilisers and nitrogen compounds. In 2005, out of RM11.6 billion total subsidies, coke and refined petroleum products received the most, amounting to RM11 billion or 94.6% of total subsidies followed by paddy (RM448 million; 3.9%); and fertilisers & nitrogen compounds (RM178 million; 1.5%). In 2010, total subsidies increased to RM12.4 billion with coke and refined petroleum products remaining as the largest recipient amounting to RM9.6 billion or 77.7% of the total subsidy. This was followed by vegetable & animal oils and fats (RM828 million; 6.7%); confectionery (RM708.5 million; 5.7%); paddy (RM444.6 million; 3.6%); fertilisers & nitrogen compounds (RM397.4 million; 3.2%); and grain mill products, starches and starch products (RM375.9 million; 3%).

In line with the subsidy rationalisation policy implemented in 2013, the subsidy for all products were reduced in 2015 except for vegetable & animal oils and fats (RM949.4 million; 16.5%); grain mill products, starches and starch products (RM687.2 million; 11.9%); and paddy (RM565.3 million; 9.8%). However, subsidy for coke and petroleum products reduced to RM3.2 billion following lower global oil prices beginning in 2014 while subsidies for fertilisers and nitrogen compounds contracted to RM388.7 million. The subsidy for sugar (confectionery) was discontinued in 2014 to promote a healthier diet for the people.

Table 1.2.5. Subsidy by Commodity 2005, 2010 and 2015

Commodity	2005		2010		CAGR (2005 - 2010) (%)	2015		
	Subsidy (RM million)	Share (%)	Subsidy (RM million)	Share (%)		Subsidy (RM million)	Share (%)	CAGR (2010 - 2015) (%)
Coke and Refined Petroleum Products	10,984	94.6	9,605.1	77.7	-2.6	3,175	55.1	-19.9
Vegetable & Animal Oils and Fats	-	-	828	6.7	-	949.4	16.5	2.8
Confectionery	-	-	708.5	5.7	-	-	-	-
Paddy	448	3.9	444.6	3.6	-0.2	565.3	9.8	4.9
Grain Mill Products, Starches and Starch Products	-	-	375.9	3.0	-	687.2	11.9	12.8
Fertilisers and Nitrogen Compounds	178	1.5	397.4	3.2	17.4	388.7	6.7	-0.4
Total Subsidy	11,610	100.0	12,359.6	100.0	1.3	5,765.6	100.0	-14.1

Note: Total may not add up due to rounding.

Source: Department of Statistics and Ministry of Finance, Malaysia.

Conclusion

This study analysed the structural change in the economy based on output, value-added, taxes and subsidies. The study revealed that in 2005, manufacturing was the most significant economic sector. However, in 2010 and subsequently in 2015, the services sector emerged as a significant contributor to the economy. In terms of value-added, in 2005 crude oil and natural gas was the primary industry, while in 2010 the wholesale & retail trade, repair of motor vehicles and motorcycles surpassed crude oil and natural gas as the leading industry with the trend continuing in 2015.

In terms of tax collection, motor vehicles, trailers and semi-trailers remained the largest contributor throughout the period. From 2005 to 2015, taxes from tobacco products and spirits, wines and liquors continued to increase. However, following efforts to encourage the development of the industry, taxes from arts, entertainment and recreation declined significantly.

In terms of subsidy, as a result of the subsidy rationalisation policy, the total amount of Government's subsidies has been reduced. However, coke and refined petroleum products continued to be heavily subsidised albeit at a decreasing level. Subsidies on other products were provided on a targeted basis to meet social and developmental objectives.

Entrepreneurship plays a vital role in harnessing economic opportunities. In July 2019, the Government launched the National Entrepreneurship Policy 2030 towards shaping Malaysia as an entrepreneurial state. In line with this objective, several strategies will be formulated to create an atmosphere where the public sector, private sector, professionals and people can collaborate effectively. Furthermore, the 2020 Budget will introduce initiatives to improve and streamline administrative regulations, procedures and systems as well as public service delivery to support entrepreneurship.

Efforts will be channelled towards raising the people's income through various initiatives, including productivity enhancement by focusing on human capital development, particularly reskilling and upskilling. Realising the importance of education in preparing the next generation, the Government will focus on equipping Malaysians with skills, knowledge and ability to meet industry requirements. In the 2020 Budget, the Government will allocate funds among others, for food and cash assistance for students from low-income families. In terms of tertiary education, the curriculum will be enriched while the industry internship programmes will be revised to enhance graduate employability.

Feature Article 1.3

Productivity-Linked Wage System in Malaysia

Introduction

Productivity is an important factor that enhances economic competitiveness and promotes investment in a country. As such, many countries encourage firms to offer a remuneration package that links pay to performance as a means of incentivising higher productivity among employees. This approach leads to progressive wage management that provides a win-win solution to employers and employees as well as the country in general. By making wages more flexible and competitive, employees may look forward to higher bonuses and better incentives in good times. Whereas in bad times, companies may be able to manage their cost and stay viable by

adjusting wages swiftly without having to resort to taking extreme cost-cutting measures such as retrenchment. Various studies indicate that the implementation of a performance-based pay system will enhance productivity as well as align wage growth with productivity growth.

The Malaysian Government has emphasised on the importance of performance-based pay system to enhance competitiveness and increase the welfare of employees. In 1996, the Government introduced the Productivity-Linked Wage System (PLWS) and issued new guidelines on wage reforms to establish a closer link between wages and productivity. Since then, several policies have been introduced to encourage further the private sector to raise wages that correspond with productivity increase. These policies were highlighted under various policy documents such as the Third Outline Perspective Plan, Third Industrial Master Plan, five-year development plans, and the yearly budget announcements. Meanwhile, the provision of law related to PLWS was specified in the Industrial Relations Act 1967. The World Bank (2011) also echoed the spirit of this provision by concluding that firms which have adopted PLWS are expected to benefit more and would also invest in other forms of management technology tools.

How Does PLWS Work?

PLWS comprises fixed and variable components. The fixed component consists of basic salary, annual salary increment and contractual bonus, whereas the variable component is based on employees' productivity. Both components are then mapped onto three PLWS models, namely, Productivity, Profitability and Combined Models. Other elements in the variable component include piece-rate system, attendance incentives, service charge and skills allowance.

Table 1.3.1. Models for the Productivity-Linked Wage System

		Productivity Model	Profitability Model	Combined Model
Component	Fixed	♦ Basic wage ♦ Annual increment ♦ Contractual bonus		♦ This model is a combination of the productivity and profitability model
	Variable	♦ Wage incentive ♦ Annual salary increment ♦ Productivity payment that is based on employee's and company's performance	♦ Bonus payment based on the profit of the company ♦ Wage incentive that will be paid when profit exceeds a predetermined threshold	

Source: Ministry of Human Resources, Malaysia.

How Effective is PLWS?

In the Malaysian context, various studies have been undertaken, which highlight the benefits of implementing PLWS. APEC (2008) reports that linking remuneration to productivity and performance is crucial among SMEs as it ensures a win-win situation for both employers and employees. The impact on productivity and performance are manifolds, ranging from intangible aspects of motivation and morale-boosting to tangible aspects of cost reduction.

World Bank (2011) observes that the implementation of PLWS is relatively widespread throughout the country. It was estimated that around 80% of firms¹ link employee compensation with performance. The study also found that firms implementing PLWS have a high proportion of tertiary-educated workers and was mainly among large firms. The high incidence of performance-

¹ A sample of 200 firms from the manufacturing and services sectors.

linked pay practices was also supported by annual surveys conducted by the Malaysian Employers Federation (MEF)² which states that more than 80% of firms surveyed pay variable bonuses to their executive and non-executive staff.

Workers' motivation was examined in a different study by the Ministry of Human Resources (MOHR) in 2013.³ The study showed that by implementing PLWS, workers were found to be more motivated and had higher job satisfaction. Furthermore, firms' profitability increased by 10%, productivity (15%) and wages (10%). In line with these studies, Universiti Putra Malaysia (2015)⁴ also found that employees perceived that the incentive package under the PLWS was fair. The findings also indicate that employees were generally satisfied with career prospects and working conditions. Moreover, the implementation of PLWS also promoted greater loyalty towards the organisation.

Various efforts were undertaken by MOHR and Malaysia Productivity Corporation (MPC) to intensify the adoption of PLWS. These include training, workshops, seminars, briefings, consultancies, showcases of best practices and PLWS Awards programme. Furthermore, to facilitate companies to adopt the system, MPC has established an online portal called the WayUp that consists of various electronic assessment tools such as easy Business Excellence (ezBE), electronic Productivity Gain Measurement (ePGM), electronic Benchmark (e-Benchmark) and productivity toolkit (Prokit) to assess and monitor the status of productivity for participating companies. These tools analyse the strengths and weaknesses of each company and provide key solutions for implementation.

What are the Challenges in Implementing PLWS?

Despite positive findings from various studies, PLWS adoption rate remains low. The slow take-up rate was contributed by several factors, including unawareness on the benefits of PLWS and assistance provided by the Government in adopting PLWS. Furthermore, resistance from trade unions and high implementation cost also contributed to the slow adoption.

Table 1.3.2. Employers Adopting and Employees Benefiting from PLWS

	2016		2017		2018		2019 (June)	
	Employers	Employees	Employers	Employees	Employers	Employees	Employers	Employees
Agriculture	4,081	387,018	4,283	413,372	4,412	429,133	4,501	447,355
Manufacturing	10,664	1,266,447	10,958	1,332,691	11,219	1,392,155	11,391	1,433,183
Construction	5,418	152,918	5,486	156,813	5,612	167,170	5,680	177,687
Services	59,537	1,762,457	60,582	1,857,167	62,177	2,038,715	63,063	2,223,991
Others	907	50,476	1,117	76,426	1,502	146,274	1,612	157,782
Total	80,607	3,619,316	82,426	3,836,469	84,922	4,173,447	86,247	4,439,998

Source: Ministry of Human Resources, Malaysia.

Findings from the National Employment Return (NER) Survey and the Department of Industrial Relations,⁵ MOHR indicates that as of 30 June 2019, only 86,247 employers have implemented PLWS which benefited 4.4 million employees. The services sector contributed the highest participation of employers at 73.1%, followed by manufacturing (13.2%), construction (6.6%) and agriculture (5.2%) sectors. The participation is still low, especially among SMEs.⁶

² There are about 5,000 firms registered with MEF.

³ A sample of 300 firms participated in the study.

⁴ 530 employees responded to the survey by Universiti Putra Malaysia.

⁵ Based on 102,517 employers participation in NER Survey and industrial visits by Department of Industrial Relations, MOHR.

⁶ In line with the findings from studies by World Bank, MOHR and Universiti Putra Malaysia.

Regardless of the benefits of paying wages based on performance, there are also some downsides. Ogbonnaya et al. (2017) reported that employees under the performance-based pay system might be stressed to the degree that supersedes the benefits of the system. Under this condition, employees are more likely to feel that they are being encouraged to work too hard, which decreases their job satisfaction. Ultimately, the stress could lower their productivity and bring about the exact opposite effect than what was intended. The study also highlights that employees working under the performance-based pay system may be inclined only to undertake activities that are being measured in their performance appraisal. Furthermore, the World Bank (2011) argues that the mandatory implementation of PLWS could result in a higher overall unemployment rate and higher employment in the informal sector. In particular, low skilled employees who are less likely to benefit from PLWS may be demotivated to work and hence opt to join the informal sector.

How to Improve the Adoption of PLWS?

Concerted efforts will be continued to widen the implementation of PLWS to ensure that wages correlate with productivity level. In this context, collaboration between various parties is crucial for its smooth implementation. The Human Resources Development Corporation (HRDC) will continue to focus on upskilling and reskilling programmes and expand the coverage of sectors to enable more employees to be trained. These training programmes aim to create skilled employees with higher productivity resulting in higher wages.

Effective promotions and campaigns should be initiated by government agencies with the help of industry players to promote success stories of PLWS. In this scenario, all agencies dealing with the private sector should be responsible for encouraging and promoting companies to implement PLWS through targeted outreach programmes. Furthermore, employers and employees, as well as trade unions, should be engaged and encouraged to attend courses or dialogue sessions related to PLWS to enhance their awareness for better implementation.

A comprehensive study on the implementation of PLWS could be conducted to further analyse the adoption of the system across sectors, states, firm size and employment categories. In addition, the study could propose measures to enhance transparency between employers and employees. Furthermore, awareness among trade unions should also be raised to increase the acceptance of PLWS among employees.

Conclusion

Overall, the implementation of PLWS is expected to benefit both employers and employees. The system would ensure that both employers and employees obtain a fair share of the gains from productivity or performance improvement. It also provides a more flexible wage structure that can withstand economic uncertainties as well as ensure job stability and reduce the likelihood of retrenchment during down-cycles. Hence, synergies between the private sector and Government agencies should be strengthened to ensure industries reap the benefits from the implementation of PLWS, to enhance firms' competitiveness and support the country's aspiration in achieving the Shared Prosperity Vision 2030.

The Government will work to ensure all segments of the society benefit from the nation's economic prosperity regardless of gender, ethnicity, socio-economic level and geographic location. In enhancing access to affordable homes, the Government will consolidate and strengthen various existing housing programmes. Financial institutions will

be encouraged to provide greater accessibility for first time home buyers by introducing more flexible and innovative financing schemes. In addition, existing housing financing schemes will be reviewed to offer sustainable housing solutions for low and middle-income households to own affordable homes.

To further elevate healthcare quality, the Government will strengthen its services by providing a comfortable environment for the people while receiving treatment in public hospitals and clinics. An allocation will be provided to upgrade healthcare infrastructure, as well as enhance the capacity and capability of healthcare personnel. Concurrently, the Government will promote a healthy lifestyle and extend preventive care programmes nationwide.

While pursuing inclusive growth, the Government continues to emphasise on sustainable development. Several environmental crises happened in 2019 that not only negatively affected the environment but also the health and livelihood of the people. To address this, the 2020 Budget encompasses strategies, programmes and activities to raise awareness, improve engagement at all levels of stakeholders and strengthen enforcement on environmental protection.

The Government will continue to give the public sector special attention as part of its institutional reform. The 2020 Budget will strengthen the public sector through various measures including upholding integrity and

governance, enhancing public service delivery, optimising resource allocation as well as improving debt and liabilities management. The establishment of the Debt Management Office (DMO) exemplifies the Government's determination in ensuring effective and efficient fiscal management.

The Government will improve its taxation system by reducing the tax gap, minimising tax leakages, exploring new sources of revenue and enhancing tax administration. At the same time, procedures related to business operations will be streamlined. These measures will not only improve the Government's financial position but also strengthen public service delivery to fulfil expectations of the people.

Overall, these strategic initiatives are in line with the Shared Prosperity Vision 2030, which focuses on increasing people's purchasing power as well as reducing income inequality and regional disparity. This sets Malaysia on a sustainable growth trajectory where enterprises thrive in a business-friendly environment while the people live in a harmonious, stable and prosperous society. This is the commitment of the Government to the people.

Feature Article 1.4

Malaysia in 2030

Introduction

The world is in the middle of a dramatic transition, and the most critical transformation is the shift in both economic and political power. Smith (2015) argues that the planet is transforming human population, economics, energy and resource demand, climate change as well as other factors vital to global civilisation and ecosystem. Hence, an understanding of global population trends and anticipating the emerging demographic changes are crucial in encountering future challenges.

Although 2030 is eleven years away, clear megatrends¹ are shaping the world, presenting both challenges and opportunities. The current global economy is facing a confluence of risks, including an escalation of trade disputes, an abrupt tightening of global financial conditions and intensifying climate risks, which could disrupt economic activities and jeopardise long-term development prospects. In this regard, the formulation of action plans to achieve the objectives of the Shared Prosperity Vision 2030 requires an understanding of how the world and the nation would look like in 2030.

¹ A shift in behaviour or attitude that has global impact and crosses multiple industries.

The Four Global Forces

Smith (2015) argues that four global forces are shaping the world today, namely demography, natural resources, globalisation and climate change. The four forces are expected to have similar effects on Malaysia. These effects are elucidated further in the following subtopics.

Demography

In terms of demography, one of the global concerns is the increasing population vis-à-vis the availability of natural resources. World population is projected to increase by 0.9%² to 8.5 billion in 2030 from 7.7 billion people in 2019. At the same time, Asia's population will rise by 0.6%² to 4.9 billion people in 2030 from 4.4 billion in 2019 (United Nations, 2019).

The population in Malaysia is expected to increase by 1.4%² from 32.6 million in 2019 to 38.1 million in 2030 (DOSM, 2019). Furthermore, as Malaysia approaches an ageing nation status by 2030, it is projected that 15% of the population will be over 60 years old compared to 10% in 2019. The National Population and Family Development Board (LPPKN) envisages three main challenges of an ageing population, namely inadequate saving by the elderly, poor health condition and the state of loneliness.

Natural Resources

As the world's population continues to rise, the demand for the depleting natural resources will continue to increase. For example, the existing world oil reserve is expected to run out in 42 years, given the current production rates and so do other non-renewable natural resources. In Malaysia, the reserves for oil and gas are expected to last approximately ten more years (British Petroleum, 2019). Similarly, Malaysia's freshwater is also projected to run low in the future. In 2010, the Ministry of Water, Land and Natural Resources conducted a study on National Water Resources in Malaysia with projections until 2050. The research has identified 12 main issues³ affecting the sustainability of Malaysia's water resources.

Figure 1.4.1. Population by Selected Areas 1950–2030

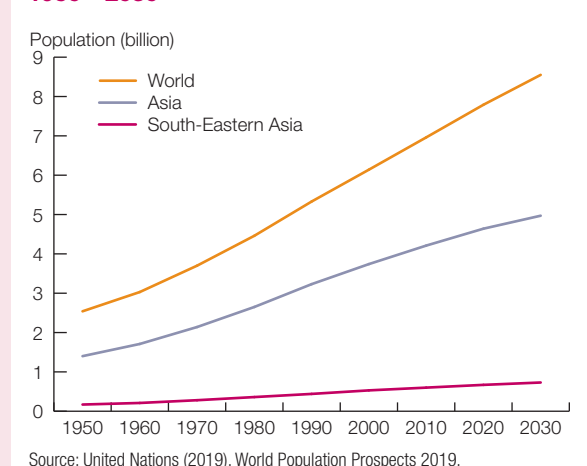
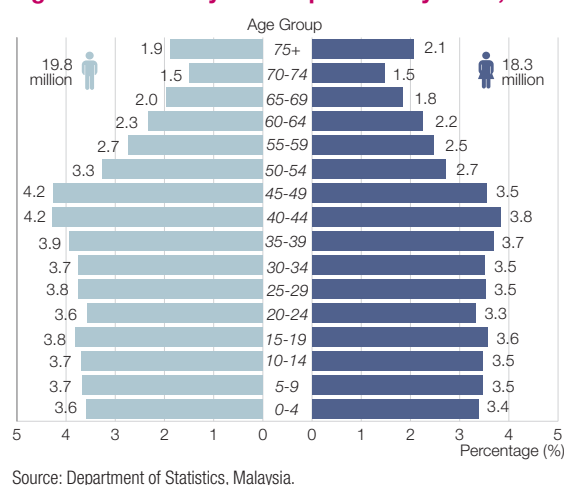


Figure 1.4.2. Malaysia's Population Pyramid, 2030



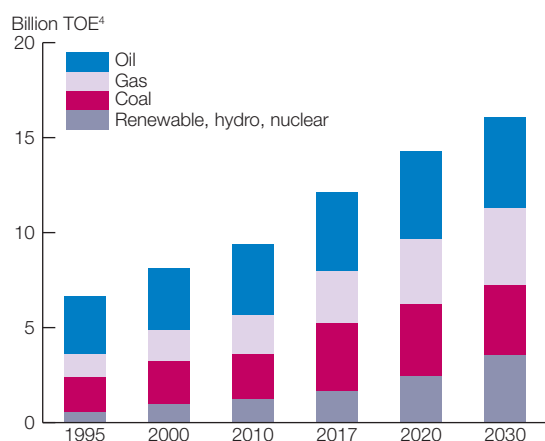
² Compound Annual Growth Rate from 2015 – 2030.

³ The 12 main issues are inefficient governance structure and ineffective enforcement; water pollution and deterioration in river water quality; unsustainable industry and lack of long-term resilience; increase in demand for safe and reliable services; limited resource recovery initiatives; competition for water resources across sectors; reactive approach in addressing disaster; research, development, commercialisation and innovation in the stage of infancy; less water ownership among the public; changes in land use due to rapid urbanisation and industrialisation; low optimisation of floodwater; and inadequate quantity of reliable water resources.

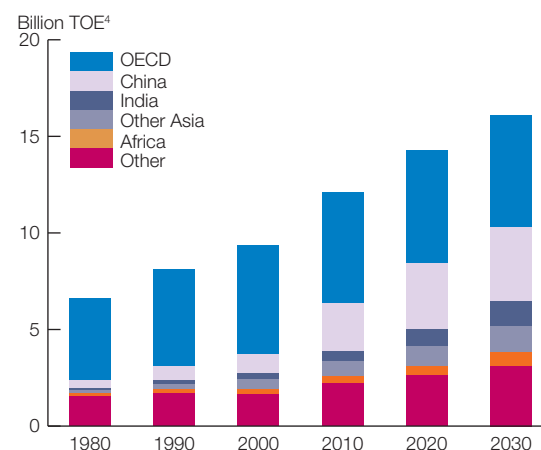
Table 1.4.1. Malaysia Natural Resources, 2018

Resources	Reserves (indicated) (metric tonnes)	R/P life-index years	Reserves (indicated) Projections 2030 (metric tonnes)	Key Uses
Coal	449,000,000	169	417,000,000	Energy
Iron Ore	24,369,069	7	–	Energy
Bauxite (Aluminium)	80,739,998	11	73,000,000	Many
Tin	893,820	231	840,000	Plating, electronic, construction, industrial
Gold	97	33	60	Jewellery, industrial, investment

Source: Department of Mineral and Geoscience Malaysia.

Figure 1.4.3. World Primary Energy Demand

Source: BP Energy Outlook 2017 – 2030, 2019 Edition.

Figure 1.4.4. World Primary Energy Demand by Region

Source: BP Energy Outlook 2017 – 2030, 2019 Edition.

Globalisation

Globalisation has enabled a gradual change in economic power. In 2000, advanced economies generated 57% of global output, measured by Purchasing Power Parity (PPP).⁵ By 2024, according to IMF forecasts, the share will fall to 37%. Meanwhile, China's share will jump to 21% from 7%, and the rest of emerging Asia will account for 39% of global output, compared to 15% for the EU and 14% for the US. By 2030, China's GDP at PPP is projected to increase to USD38 trillion, thus retaining its position as the largest economy, followed by the US and India. Notably, Indonesia is projected to improve to fifth position at USD5.4 trillion in 2030. At the same time, Malaysia is expected to rise from 27th to 25th position. In this regard, the relative position of countries in terms of performance depends on various factors such as the emergence of an inward-looking policy which may result in a slowdown or even reversal of globalisation (Wolf, 2019).

⁴ Tonne of oil equivalent (TOE) is a unit of energy, defined as the amount of energy released by burning one tonne of crude oil.

⁵ PPP estimates of GDP adjust for price level differences across countries, providing a better measure of the volume of goods and services produced by an economy as compared to GDP at current market exchange rates, which is a measure of value.

Table 1.4.2. Projected Rankings of Economies Based on GDP at PPPs
(in Constant 2016, USD billion)

GDP PPP Rankings	2016 Rankings		2030 Rankings	
	Country	GDP at PPP	Country	Projected GDP at PPP
1	China	21,269	China	38,008
2	United States	18,562	United States	23,475
3	India	8,721	India	19,511
4	Japan	4,932	Japan	5,606
5	Germany	3,979	Indonesia	5,424
6	Russia	3,745	Russia	4,736
7	Brazil	3,135	Germany	4,707
8	Indonesia	3,028	Brazil	4,439
9	United Kingdom	2,788	Mexico	3,661
10	France	2,737	United Kingdom	3,638
11	Mexico	2,307	France	3,377
12	Italy	2,221	Turkey	2,996
13	South Korea	1,929	Saudi Arabia	2,755
14	Turkey	1,906	South Korea	2,651
15	Saudi Arabia	1,731	Italy	2,541
16	Spain	1,690	Iran	2,354
17	Canada	1,674	Spain	2,159
18	Iran	1,459	Canada	2,141
19	Australia	1,189	Egypt	2,049
20	Thailand	1,161	Pakistan	1,868
21	Egypt	1,105	Nigeria	1,794
22	Nigeria	1,089	Thailand	1,732
23	Poland	1,052	Australia	1,663
24	Pakistan	988	Philippines	1,615
25	Argentina	879	Malaysia	1,506
26	Netherlands	866	Poland	1,505
27	Malaysia	864	Argentina	1,342
28	Philippines	802	Bangladesh	1,324
29	South Africa	736	Viet Nam	1,303
30	Colombia	690	South Africa	1,148
31	Bangladesh	628	Colombia	1,111
32	Viet Nam	595	Netherlands	1,080

Source: International Monetary Fund for 2016 estimates and PricewaterhouseCoopers projections for 2030.

Climate Change

Currently, the global average surface temperature is trending upward, along with steady measured growth of greenhouse gas concentration in the atmosphere. The average temperature is rising consistently in line with the greenhouse effect. Meanwhile, other natural cycle or processes also known to influence the climate such as volcanic eruptions does not always affect the average temperature. The impact of climate change on people and their livelihood have been well documented. For example, a staggering 35,000 people were killed in 2003 when a massive heatwave spilt across Europe. Besides, lesser waves killed hundreds more in Japan, China, India and the US in the following summers (Smith, 2015). In the Malaysian context, the nation has also experienced a warming trend for the past few decades. According to the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), Malaysia's annual average

temperature for Peninsular Malaysia is projected to increase from 0.6°C to 0.9°C, while in Sabah and Sarawak from 0.8°C to 1.0°C and 0.6°C to 0.8°C by 2030 respectively.⁶ Climate change is likely to have a significant impact on development strategies and macroeconomic policies globally, particularly among the poorer and more vulnerable countries.

Technological Advances as Enablers of Global Forces

As the four global forces pose considerable challenges to the world, technological advancement can be leveraged to minimise the impact and facilitate the implementation of measures to address the problems. For example, technological progress in global communications facilitates businesses to explore new opportunities domestically and across borders. In this regard, other advanced technologies are also vital in addressing the challenges from changes in demography and demand for natural resources and energy. Technologies also provide tremendous assistance to mitigate uncertainties arising from globalisation and climate change.

Smith (2015) argues that technological advances have the potential to mitigate the impact of the four global forces. For instance, modern healthcare and pharmacology assist older persons in being healthier and more productive, especially in the developing world. At the same time, advances in biotech, nanotech and material science encourage the shift from the utilisation of depleting energy resources such as oil and gas to a higher demand for greener and renewable natural resources. In terms of addressing climate change, technological advances such as smart grids, solar panels and geoengineering assist efforts to prevent the worsening of climate change and lessen its impacts. Smith (2015) further argues that technological advances are pivotal as they act as both the catalyst for enabling the positive effects or decelerating the consequences of the four global forces, rather than as an independent force on its own.

Malaysia's Shared Prosperity Vision 2030

Malaysia's Shared Prosperity Vision 2030 sets a new economic direction in ensuring prosperity for all Malaysians. The Vision aims for sustainable development with equitable distribution, inclusive at every level of the supply chain, ethnicity and region to create a sense of harmony and political stability among Malaysians. The strategic thrusts of the Vision are as follows:

- business and industrial ecosystem;
- key economic growth activities;
- human capital;
- labour market and compensation of employees;
- social well-being;
- regional inclusion; and
- social capital.

Shared Prosperity Vision 2030 outlines three main objectives. The first objective aims at restructuring the economy to be progressive, knowledge-based and high-valued with full participation at all levels of society. This objective can be achieved through robust and sustainable economic growth and ensuring the prosperity is enjoyed by Malaysians equitably.

The second objective focuses on addressing inequalities at various fronts, including reducing the gap within the supply chains, between ethnicities as well as bridging regional disparities to ensure that no one is left behind. The objective requires the development of a learning society, developing new industries and setting an economy that harmonises the different needs of society.

⁶ Based on the Malaysia Third National Communication (NC3) and Second Biennial Update Report (BUR2) to fulfil Malaysia's reporting obligations to the United Nations Framework Convention on Climate Change (UNFCCC) 2018.

Finally, the third objective of the Vision is to uplift Malaysia to be a united, prosperous and dignified nation. There is a need to position Malaysia as the axis of Asia's economic growth as well as to strengthen democratic institutions. Furthermore, the objective requires efforts to combat corruption and plug leakages of Government resources, eradicate prejudicial notions, foster racial unity and ensure sustainable development.

Conclusion

The world is transforming in terms of population growth, demand for natural resources, globalisation trend and climate change. At the same time, the nation has to be mindful of other factors shaping the future of the country. In this respect, the Shared Prosperity Vision 2030 sets the path for Malaysia's sustainable development with equitable economic distribution, inclusive at every level of the supply chain, ethnicity and geographical divide, and create a sense of harmony and political stability among Malaysians. The Vision brings forth ideas and inspiration for all Malaysians to foster unity without prejudice, celebrating the diversity of races and cultures to create a united, prosperous and dignified nation.

Conclusion

Supported by strong fundamentals, the Malaysian economy is expected to remain resilient despite global economic uncertainties. Real GDP is projected to grow by 4.7% in 2019. In 2020, the economy is expected to remain steady, with a growth of 4.8% led by domestic demand. Private sector expenditure will remain the key driver of growth with private consumption and investment rising 6.9% and 2.1%, respectively. Meanwhile, public sector expenditure is forecast to rebound, following improvement in investment. On the supply side,

the expansion is expected to be broad-based, with all sectors registering positive growth.

Despite the anticipated expansion, external uncertainties pose downside risks to the growth prospect. To minimise the risks and drive the economy, the Government will implement measures to harness economic opportunities, level up human capital, ensure inclusivity and revitalise public institutions and public finances. This will lay the foundation for the crystallisation of the objectives of Shared Prosperity Vision 2030 and for Malaysia to reemerge as an Asian Tiger.

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