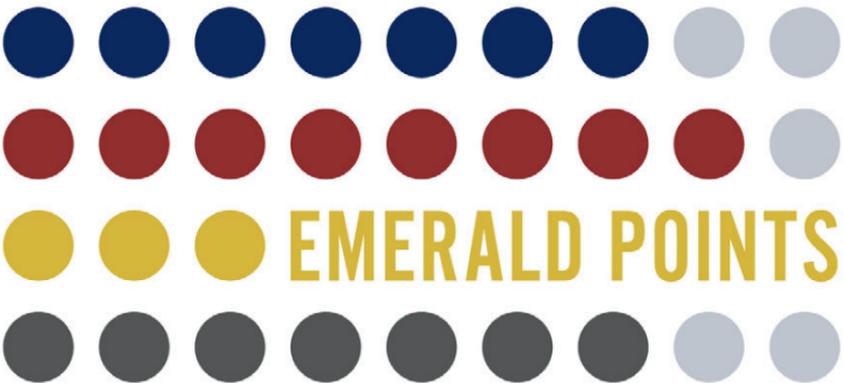# ISSUES AND CHALLENGES IN THE MALAYSIAN ECONOMY

Towards Inclusive Growth

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Rozilee Asid, Wan Farisan Wan Sulaiman,
Elya Nabila Abdul Bahri, Nor Fatimah Che Sulaiman
and Norlee Ramli

EMERALD POINTS

# ISSUES AND CHALLENGES IN THE MALAYSIAN ECONOMY

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# ISSUES AND CHALLENGES IN THE MALAYSIAN ECONOMY

## Towards Inclusive Growth

BY

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| | |
|---|---|
| ASEAN | Association of Southeast Asian Nations |
| ATP | Autonomous Technical Progress |
| BCBS | Basel Committee on Banking Supervision |
| BNM | Bank Negara Malaysia |
| DTP | Domestic Technical Progress |
| ES | Expected Shortfall |
| EVI | Economic Vulnerability Index |
| EWS | Early Warning System |
| FDI | Foreign direct investment |
| FTP | Foreign Technical Progress |
| GDP | Gross Domestic Product |
| HCI | Human Capital Index |
| HDI | Human Development Index |
| IPR | Intellectual Property Rights Protection |
| ITP | Innovation Technical Progress |
| MDG | Millennium Development Goals |
| MIGI | Malaysia Inclusive Growth Index |
| NEAC | National Economic Advisory Council of Malaysia |
| R&D | Research and Development |
| SC | Scale effect |
| SFA | Stochastic Frontier Analysis |
| TEC | Technical Efficiency Change |
| TFPG | Total Factor Productivity Growth |

VaR              Value at Risk
UNCTAD           United Nations Conference on Trade and
                 Development
UNDP             United Nations Development Program
WTO-TRIPS        World Trade Organization-Trade Related Aspect
                 of Intellectual Property Rights Agreement

# INTRODUCTION

## INCLUSIVE GROWTH IN MALAYSIA: ISSUES AND CHALLENGES

### I.1 INTRODUCTION

The Malaysian economy has enjoyed rapid economic growth in recent years with a 5.4% average annual growth rate for gross domestic product from 2010 to 2018 (Economics Intelligence Unit, 2019). By 2018, Malaysia's GNI per capita according to Atlas method has almost reached the high income level at around USD$10,460 from just USD$370 in 1970 making it the third most highest income per capita nation in ASEAN after Singapore and Brunei. Indeed, Malaysia has drawn considerable attention due to its strong sustained economic growth and efforts to reduce poverty. Consequently, the country's economic and political standing has improved suitable of an emerging market economy.

At the same time, Malaysia has the highest income inequality in Asia according to the Gini coefficient method which is one of indication of less inclusive growth. It is widely understood that high economic growth in Malaysia would result in widening economic disparity in various dimensions

such as regional inequality and income group's gaps. This indicates that less developed states and disadvantaged income groups do not enjoy from high economic growth compared to the developed states and high income groups, in term of economic growth at the national level.

However, it is crucial to ensure that economic growth would benefits all sections of the society and increase their overall quality of life. There is evidence to support that income inequality would result in rising social-economic issues (Peterson, 2017). Income inequality is defined as measurement of the gap of the distribution of income of the highest individuals or households with income of the lowest individuals or households (OECD, 2019). This rising income inequality would then result in lower GDP per capita especially for the high income economy (Brueckner, Dabla-Norris, Gradstein, & Lederman, 2017).

If the gap of the income inequality keep widening, there is a possibility of political dissatisfaction among the lower income groups or less developed states which could become a political issues that need to be addressed. In Malaysia, addressing the issue of rising cost of living has become one of the main agenda of the Government which is partly contributed to the widening income gap between the high income and low income. This has caused the low or even middle-income households unable to afford basic needs such as housing and healthcare. To foster the sense of economic growth and equity, the World Bank has come up with the agenda of Shared Prosperity (World Bank, 2018). This is important to ensure that the public would have belief in the current system and thus sustaining the functioning of democracy and economic system.

Malaysia has always emphasized growth with equity in its various economic plans through reducing the poverty levels by providing jobs for all Malaysians irrespective of race (Nixon,

Asada, & Koen, 2017). In same path, the present central government, the Pakatan Harapan government has adopted inclusive growth as its main economic agenda through the revised 11th Malaysian Plan which aims to drive uplift the bottom 40% (B40) income group to the middle-income group (M40) (Wan Sulaiman, 2018). This would eventually able to distribute the benefits of economic growth to all sections of the society.

In addition, according to the definition of inclusive growth given by World Bank, inclusive growth is a growth that allows all sections of the society to contribute and gain benefit from economic growth. Nevertheless, this could only be achieved through policy goals and programmes such as improving income and purchasing power of B40 income group through increasing marketability and productivity of this group. The government will be focusing on invigorating the entrepreneurship programme and enhancing the human capital capability of the B40 income group.

Various academic researchers have been conducted on inclusive growth in Malaysia recently, particularly on the various economic plans to achieving economic growth with equity. Some studies discuss on the success of this plans on achieving quality economic development (Rosli & Hwa, 2012). Other studies discuss issues related to inclusive growth such as labour market, social protection, tax system, pension system and healthcare (Nixon et al., 2017).

As a continuation of previous research on inclusive growth which address selected income inequality issues in Malaysia (Rosli & Hwa, 2012), the present volume mainly focuses on how Malaysia can achieve inclusive growth through economic areas such as trade, innovation, efficiency and fiscal policy. An attempt is also made to understand selected areas of development contribution to inclusive

growth such as FDI and rural community economy by which
certain community or areas are left behind. In doing so, this
study aims to identify how inclusive growth could be ach-
ieved in those areas.

### I.2 INCLUSIVE GROWTH IN MALAYSIA

#### I.2.1 Income Inequality by States

In Malaysia, which practiced a federal system, whereby the
Federal government is responsible for planning economic and
social development policies. In term of attracting private
investment an important ingredient for economic growth,
certain states are able to better attract investment due to partly
the legacy from colonialism resulting in regional disparity
among states in Malaysia in term of economic and social
development.

Fig. I.1, above shows the capital investment by states in
Malaysia for the period from January until March 2019. As
can be seen, Pulau Pinang has the largest proposed capital
investment at almost RM9 billion followed by Kedah at
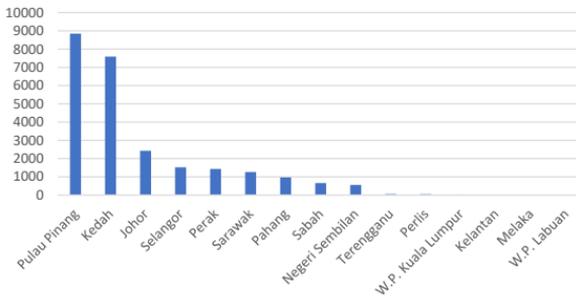


*Source*: Malaysian Industrial Development Agencies (MIDA).

**Fig. I.1.  Total Proposed Capital Investment by States in
Malaysia for January Until March 2019.**

almost RM8 billion while the third largest state, Johor has only around RM2 billion. This can be partly due to the ability of these two states to attract private investment especially in high technology sector.

In addition, Fig. I.2 clearly shows income inequality between states in Malaysia in 2016, with rich states such as Kuala Lumpur has an average household income of almost RM12,000 almost three times higher than the poorest state, Kelantan which has an average household income of just RM4,000.

### I.2.2 Income Inequality by Ethnicity and Income Groups

According to Saari, Dietzenbacher, and Los (2015), Malaysia registered income inequality between ethnicity that are

**Average Household Income by States in 2016 (RM)**
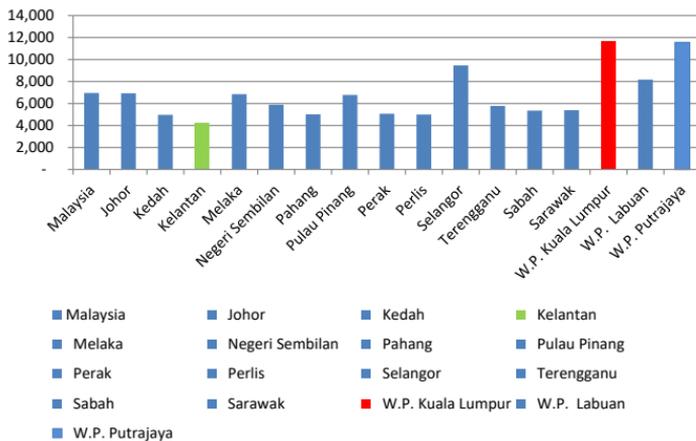


*Source*: Department of Statistics Malaysia.

**Fig. I.2. Household Income by States.**

Bumiputera, Chinese, India and others due to the different economic sector each ethnic mostly participated in. Fig. I.3 below clearly shows that the income gap between Chinese and other ethnic has been widening since 2009. In 2009, the income gap between Chinese and Bumiputera was RM1,400 and this has increased to RM2,473 in 2016.

According to the study done by Kazanah Research Institute (2018), the income gap between the top 20% of income earners with other income groups has doubled in two decades. Figure I.3 below of household income by income groups
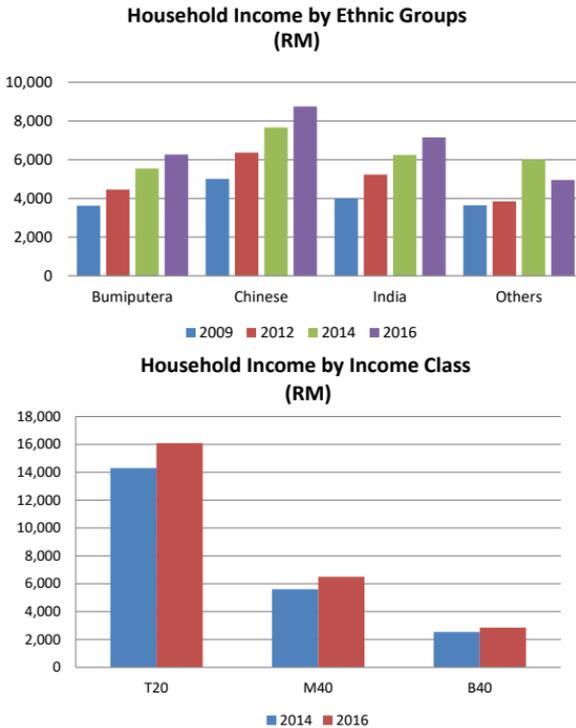


*Source*: Department of Statistics Malaysia.

**Fig. I.3.  Household Income by Ethnics and Income Class.**

clearly demonstrate that the income gap between top 20% (T20) with middle 40% (M40) and bottom 40% (B40) has increased from 2014 to 2016. In 2014, the income gap between the T20 and M40 was RM8,700 and increased to RM9,500 in 2016. While, the income gap between the T20 and B40 increased from RM11,763 in 2014 to RM13,240 in 2016. The increasing income gap can be attributed to the increasing level of income of the top earners due to increasing skills and productivity of this group compared to other groups.

## I.3 OVERVIEW OF INCLUSIVE GROWTH: FOUR SELECTED ISSUES

With a population of around 31 million, Malaysia is considered to be among the most dynamic economies in ASEAN region. Its income per capita is among the highest compared to regional peers. However, the issue of income inequality among states as well as income groups needed policy makers to understand the role of economic areas mainly trade and innovation, financial development, human capital and commodity prices as well as fiscal policy in addressing this issue.

### I.3.1 Trade and Innovation

Increasing trade is expected to contribute to the growing income inequality especially in advanced economies due to the loss of middle-income jobs and low-income jobs in manufacturing as many jobs will be exported to low cost country such as China and India and trade mostly will benefit the high income jobs (Barusman & Barusman, 2017). For Malaysia, on the other hand currently external trade is a very important aspect of the economy as it contributes to more

120% to the GDP in 2018. Fig. I.4 below clearly shows that Gini coefficient is on declining trend since 1997 from 49.1 in 1997 to 41.0 in 2015. At the same time, external trade is also on the growth path from RM684 billion in 2010 to RM1.9 trillion in 2018 (Fig. I.5). Study done by Ahmed and Masih (2017) has shown that trade openness would reduce income inequality for Malaysia.

Furthermore, studies have shown that innovation can increase income inequality by increasing the income of top earners (Aghion et al., 2018). On the other hand, innovation can also assist in reducing the income inequality brought by globalisation and technology through implementing policies
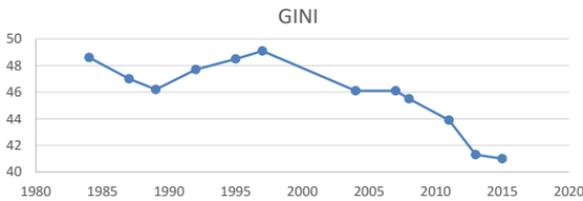


*Source*: World Development Indicators.

**Fig. I.4.  Gini Coefficient for Malaysia (1980–2015).**
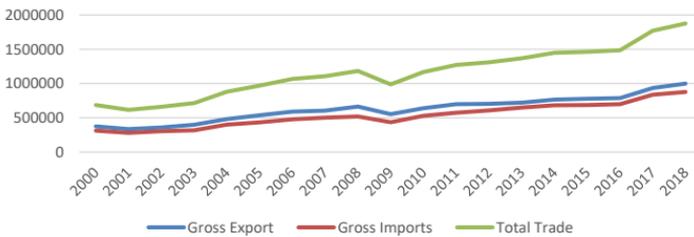


*Source*: Department of Statistics.

**Fig. I.5.  External Trade for Malaysia (2000–2018) RM Million.**

that promote inclusive innovation such as encouraging pat-
enting innovation by small companies (De Palo, Stylianos, &
Roman, 2018). Fig. I.6 below indicates that innovation
activities in Malaysia is improving with R&D spending
increasing from just 0.8% of GDP in 2008 to 1.3% of GDP in
2018.

### I.3.2 Financial Development and Income Inequality

Financial development can become a tool to reduce income
inequality (Haffejee & Masih, 2008) and poverty levels as
well (Zhang & Ben Naceur, 2019). This is because a more
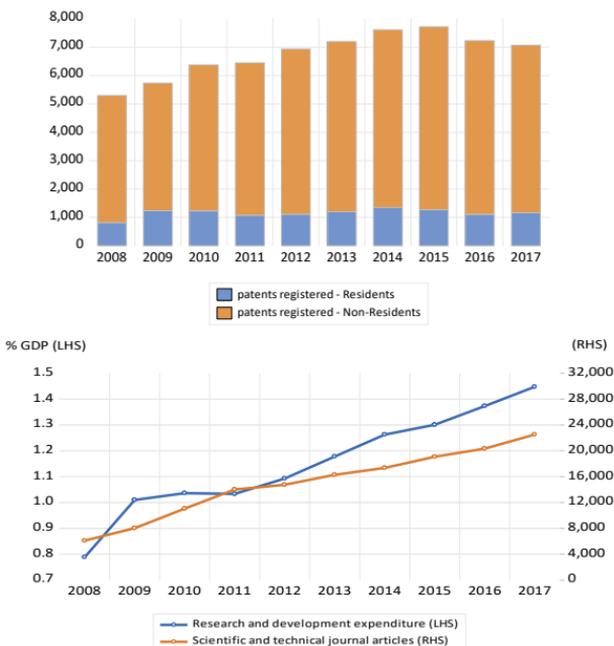


*Source*: World Development Indicators.

**Fig. I.6.  Indicators for Innovation, 2008–2017.**

developed banking sector especially that implements financial
inclusion would provide financial resources to people from
lower income level as well as poor people to engage in eco-
nomic activities such as setting up a business that could
increase their income level or even uplift them from the
poverty trap (Anwar, Uppun, Tri, Reviani, & Park, 2015).
The Financial Development Index which measures how the
financial sector in the country is developed also measures the
easiness to gain access to financial resource which is an
important aspect of financial inclusion. Fig. I.7 below shows
that Financial Development Index is on an increase from just
an index of 59 in 2008 to 68 in 2017. Focus should be given in
insuring wider financial inclusion to improve income equality
in the economy through measures such as banks given target
loan given to low-income groups.

### I.3.3 Human Capital and Inclusive Growth or Development Index

Improved human capital through lower inequality in educa-
tion has been identified as one of the approach to achieve
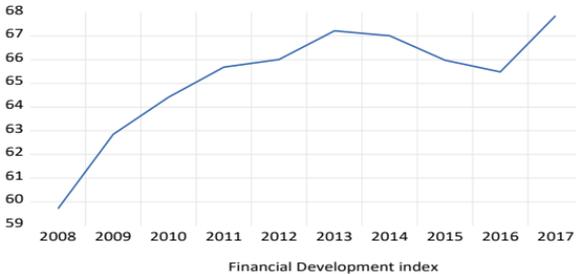


*Source*: IMF Database.

**Fig. I.7.  Indicators of Financial Development.**

inclusive growth by reducing income inequality and poverty levels (Lee & Lee, 2018; Oluwadamilola, Akinyemi, & Adediran, 2018). Lower inequality in education can be seen through better education attainment throughout cross section of the society which increased in public spending on education could achieve that goal. A study done by Mahmood, Noor, and Law (2014) has also found out that for developing countries by increasing the number of years in school could reduce human capital inequality and as a result the gap in income between class in society will be smaller.

For Malaysia, from Fig. I.8 below the public spending on education has been on an increasing trend from just RM27
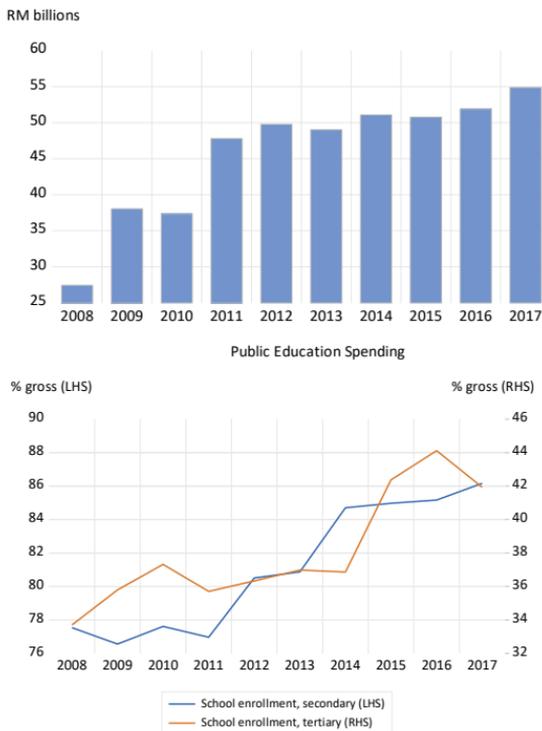


Fig. I.8. Indicators of Education in Malaysia.

billion in 2008 to almost RM55 billion in 2017. The increased spending is reflected from the higher percentage of tertiary school enrolment from just 34% in 2008 to 42% in 2017. As such, the government of Malaysia need to ensure that the education inequality between income class, ethnicity or region need to be reduced through policy action such as giving tuition assistance to students in rural areas as well as from lower income groups.

In addition to human capital, Inclusive Development Index can assist towards a more inclusive economy by providing an economic policy framework as well as performance metric of a country towards achieving a higher economic growth with shared benefits to all members of the society (World Economic Forum, 2018). In the 2018 Inclusive Development Index, Malaysia is ranked 13th place among 70 emerging economies. Malaysia needs to improve its economic policy framework as well as implement its action plan towards a more inclusive economy to improve its future ranking.

### 1.3.4 Commodity Prices and Fiscal Policy for Inclusive Growth

The volatility of commodity price has caused macroeconomic instability and increase in income inequality due to its impact on trade and government revenue as well as rural income such as farmers that produces the commodity (Fynn, 2013). Wee and Singaravelloo (2018) has stated for Malaysia, in 2013 census there were 283,683 rubber smallholders and any drop in prices of natural rubber would have an adverse impact on the government income target for rural households. Fig. I.9 below signifies that rubber price has greatly fluctuated from 2013 to 2019, from 933 cents per kg in February 2013 to 454 cents in February 2016 or 51% drop in just three years. The government needs to address the volatility in rubber prices by

Rubber Price (SMR20) cents per kg (2013-2019)

Federal Government Finance for Malaysia:
2013-2019
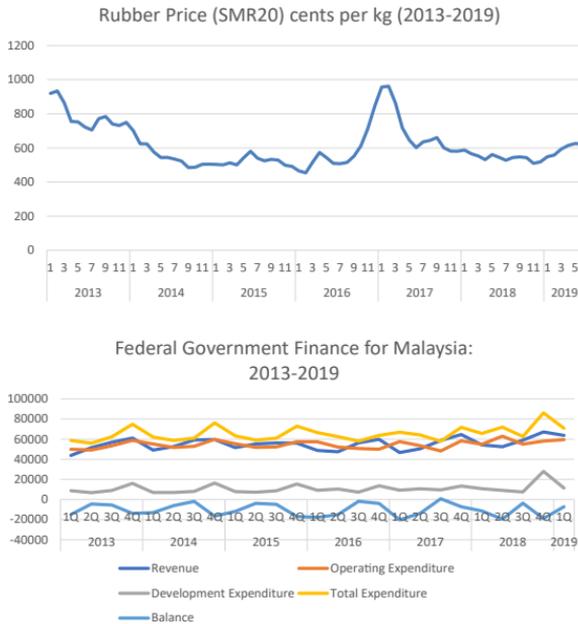
*Source*: BNM website.

**Fig. I.9.  Commodity Price and Fiscal Policy in Malaysia.**

increasing demand for rubber prices or coordinating the price of natural rubber with other major rubber producer such as Thailand and Vietnam.

In term of fiscal policy, according to IMF (2014) fiscal policy plays an important role in term of achieving a more equal income distribution through taxation and spending policy. Furthermore, Agnello and Sousa (2014) has found out fiscal consolidation in advanced economies arising from increasing budget deficit would increase income inequality due to budget cuts to programmes that assist lower income group. Fig. I.9 below has shown that for the quarterly period from 2013 to 2019, the Federal Government Finance has always been in deficit except for in quarter 3, 2017. The Federal

Government need to find ways to increase future revenue to have adequate fiscal space for measures to mitigate future economic crisis as well to fund effective programmes to assist the poor and low income people to increase their income and provide social protection assistance.

## 1.4 MAJOR FINDINGS AND FUTURE CHALLENGES

This section outlines some major findings in accordance of the issue outlines and their policy implications for inclusive growth.

First, inclusive growth or sustainable development is delayed by a lack of innovation in the economy (Chapter 1). Innovation either from foreign or local source can be used to increase productivity and efficiency in the economy. One of the approaches is to promote innovation through protection of intellectual property right (IPR) especially on small business. The findings show that innovation has a higher impact on economic growth when there is IPR protection.

In Chapter 2, the extent of benefits of banking on financial inclusion and specifically on the benefit of banking sector on inclusive growth depends on ability of the banks to absorb more risks as financial inclusion is deemed having higher risk. The central bank need to adequately address the issue of high market risk for higher financial inclusion initiatives to the banking sector.

Third, it seems that human capital mainly in term of capital flight cannot dramatically reduce income inequality. It can be inferred from Chapter 3 and 4 of the present volume that human capital plays an important role in reducing capital flight risk as well as inclusive growth with the support of Foreign Direct Investment (FDI) and Financial Development in an economy.

In other aspects, it was found out that in Chapter 4 that FDI and financial development could increase the income gap if workers did not upskill their level of working skill to increase productivity. While Chapter 5 indicates that level of inclusivity in Malaysia has increased through assessing the Malaysian Inclusive Growth Index especially in term of Human Capital Index (HDI) which is in line with the focus of the government to achieve inclusive and sustainable economic growth.

Policy makers need to mitigate the impact of commodity price shocks and volatility on economic growth, financial resources and income distribution especially on the poverty level (Chapter 6). Importantly, fiscal policy can play an important role to mitigate the impact of price shocks as well as ensuring sustainable and inclusive growth through taxation and spending policy that is pro-poor and safeguarding social protection in the economy (Chapter 7).

## 1.5 CONCLUDING REMARKS

This introduction has briefly summarized the issue of inclusive growth in Malaysia through several economic areas such as trade, financial development, commodity and fiscal policy. This introduction has been based on upon existing literature and data, as well as findings of own studies. In general, Malaysia has been progressing well in achieving inclusive growth while income inequality existed between states, ethnics and income groups.

With the focus on economic areas, we have attempted (1) to examine the impact of innovation on inclusive growth (2) to investigate how banking risk, trade and financial development could impact inclusive growth (3) to explore the role of human capital in capital flight and inclusive growth 4) to illustrate the impact of commodity price shocks on income

inequality and the role of fiscal policy in ensuring inclusive growth.

The main findings are summarized as follows. First, the importance of innovation as a factor explaining the slower economic growth is emphasizes. Second, the benefits of assessing bank market risk tend to increase financial inclusion. Third, higher human capital development tend to reduce capital flight risk and ensuring inclusive growth. Fourth, lack of fiscal space could increase income inequality in an economy.

Some policies are suggested to achieve inclusive growth; the promotion of intellectual property right for small business to spur innovation, ensuring strong banking sector for wider financial inclusion, upskilling the skill of low-income workers to reduce impact of globalisation, to ensure stable commodity price through increasing domestic demand and to strengthen fiscal policy through increasing source of revenue and effectiveness of pro-poor spending programmes.

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# 1

# HOW FOREIGN CAPITAL, TRIADIC PATENT PROPENSITY AND INTELLECTUAL PROPERTY RIGHTS PROTECTION CAN ASSIST IN INCLUSIVE GROWTH: IMPLICATIONS FROM DEVELOPING ECONOMIES

**Rozilee Asid**

## 1.1 INTRODUCTION

Recently, innovation is a priority key policy for governments around the world, especially for developing and emerging economies. Because innovation matters for growth, it is increasingly prominent on government agendas. Innovation can be mobilised to improve economic growth, to increase productivity and efficiency. Unlike technology-frontier nation,

majority of developing and emerging economies are still lacking behind in their innovative capability and capacity to develop specific technology needed to support industrial needs. However, due to globalization in the international trade, obtaining foreign state-of-the-art innovation or technology through imports are now becoming preferable channel accessible to assist that process.

## 1.2 REVIEW ON TRADE, INNOVATION AND PRODUCTIVITY

In the past, a large volume of research has recognised the significant role of trade on foreign state-of-the-art innovations as a source of research and development (R&D) spillovers into the domestic economy. However, such processes are subject to several factors such as the sensitivity of the intellectual property rights (IPR) protection specifically related to the patent system regime that being enforced and imitation capability of the trading partners. As different variations on patent laws differently exercises across the globe has now been harmonised in the WTO-TRIPS 1995 agreements, the effectiveness of that policy is timely to be investigated.

There exists a vast literature that accepts the ideas of *trade-related* spillovers as a channel of technology diffusion for the recipient countries as we mentioned earlier in this section. Why trade-related spillover becomes one of the important channels for technology diffusion? As argued by Eaton and Kortum (2001), trade on newly invented technologies is dominated by a few of the leading countries to the laggard countries, but it is always subject to various limitations than perfections (Coe, Helpman, & Hoffmaister, 2009). Since newly invented technologies produced by the

leading frontier countries are always as costly as its benefits, trade issues remain high on the agenda when standards of patent protection are not properly enforced in the first place.

The effects of R&D technology that spill over into the receiving countries have been largely documented in the past. Gustavsson, Hansson, and Lundberg (1999) provide various perspectives on how technology may be diffused and identified but arguing that most previous studies have failed to identify factor endowments as the potential important candidate. Research on trade as a channel for knowledge diffusion as pioneered by Coe and Helpman (1995) have been a subject of discussion by many, see for examples Coe, Helpman, and Hoffmaister (1997), Keller (1998), Bayoumi, Coe, and Helpman (1999), Bitzer and Geishecker (2006) and Coe et al. (2009). One thing in common is that trade in the commercialised foreign R&D by itself induce growth and efficiency either exogenously or endogenously.

Technology may also be generated endogenously through *locally-initiated* innovations. Innovative capacity of a country has widely been regarded as the driving force behind economic growth and competitiveness. As explained by Hu and Mathews (2005), most of the latecomers (i.e., developing countries) had taken a longer time to catch-up to the leading frontier due to different needs. While the leading frontier countries are interested in maintaining their position as a leader in the *state-of-the-art* technology, the latecomer however focus their innovation efforts to more targeted industrial sectors in order to maintain their status as leading producers of certain products for instance information and communication technology (ICT) and electronics being led by South Korea, China, Taiwan and Singapore, whereas for pharmaceuticals, medical and biotechnology also being led by the aforementioned countries with the addition of India.

Standards protection of IPR across nations are also believed to promote better incentives to innovate and trade effectively and able to monitor technology transfer effectively among the trading partners. Maskus and Penubarti (1995) justified that, patent protection may bring two offsetting effects on trade i.e., either *market power* or *market expansion* effect and also triggered by the imitation capability that trading partners has (Smith, 1999). These similar findings are also observed when internal bilateral trade exercises made between the affiliates and its parent entity (Smith, 2001).

Considering the significant use of patent-based statistic to indicate innovations, empirical research tend to selectively considered only patents of high quality known as triadic patents family. Triadic patents are referring to the destinations in which the patent is intended to seek for protection. In a large number of research, patents registered in three IP offices such as the United States of Patent & Trademark Office (USPTO), the Japan Patent Office (JPO) and European Patent Office (EPO) are preferred as the triadic patent family counts destination. All patents application in these three IP offices is considered to be of high economic value within the world's most important regional markets of newly invented technology. As the level of domestic IPR policy was hypothesised to react differently towards growth and trade, different trajectory effects may be expected from *triadic patent family* as well.

The motivation of this research is to examine the effect of both foreign R&D spillovers and domestic innovations as proxied by *triadic patent family* counts on the efficiency and productivity as conditioned by the strength of IPR protections among the developing countries. As research focusing on foreign R&D spillovers had been widely discussed in the literatures, the speed up effects triggered by

different levels of IPR strength in both Foreign R&D and *triadic patent family* is still unclear, thus showing a gap in the literature.

## 1.3 METHODOLOGY

We utilise the translog stochastic production frontier function within a modified framework of Cuesta (2000) and Coelli, Perelman, and Romano (1999). Series of data from 1990 to 2010 are collected for a total of 36 developing and emerging economies in order to estimate the total factor productivity (TFP) index. The estimated TFP index then decomposed into several components namely the autonomous technical progress (ATP) which record changes of technical progress over time, the foreign technical progress (FTP) estimates the technical progress derived from the use of foreign R&D imports and domestic technical progress (DTP) measured changes of technical progress derived from triadic patent propensity. The elasticity of other inputs determines the scale effect. The estimates of *innovation growth* effects are derived from the summation effect of partial derivation of output with respect to IPR at all interactions.

## 1.4 THE EFFECT OF IPR: INNOVATION EFFECT TOWARDS GROWTH

The estimates of scale (SC), foreign technical progress (FTP), domestic technical progress (DTP), ATP and technical efficiency change (TEC) to generate total factor productivity growth (TFPG) is now discussed. We divide the sample into two groups to distinguish the positive (Group 1) and

negative (Group 2) effects of innovation technical progress (ITP). It is found that TFPG for Group 1 is higher once ITP included as one of the components. This shows that *innovation growth* effect is important. As Table 1.1 shows, the average contribution of ITP for Group 1 (group with positive ITP) towards TFPG is 9.68%, which is 2.03% higher compared to Group 2 (negative ITP). Countries in Group 1 share one common features i.e., those countries are regionally and geographically adjacent to each other and the level of IPR protection on average is considered minimum. This group also record higher DTP and TEC measure and lower SC effect.

The marginal effect of IPR strength and all the interacted variables to determine the *growth expansion* or *growth reduction* effect. The accumulated elasticity of all interaction coefficients then tested whether there is evidence of positive or negative *innovation growth* effect. The estimated results are shown in Table 1.2. The marginal effect of all interaction show some mixed evidence of *growth expansion* and *growth reduction* effect on output growth. The *growth expansion* effect of per capita human capital is significant at 1% level, and a *growth reduction* effect observed among for $\ln k$ (capital), $\ln hl$ (human capital) and $\ln TPF$ (triadic patent propensity) with $\ln TPF$ found to be significant at 5% level.

Uniquely, none of the interaction coefficients has either the *growth expansion* or *growth reduction* effect consistently across all interaction of IPR variation. The *growth expansion* effect for capital (K) is observed at two places, i.e. 0.001% (minimum IPR level with significant level at 10%) and insignificantly at nearly 0% at 75% IPR variation. The incidence of *growth reduction* effects found in two places, i.e., both significant at the 1% level at 50% IPR variation and at the 75% variation.

## Table 1.1. Decomposition of TFPG: ITP Positive vs Negative.

| | Country | SC | FTP | DTP | ATP | TEC | TFPG | ITP | TFPG[a] |
|---|---|---|---|---|---|---|---|---|---|
| 1 | CHL | −0.0107 | 0.0980 | 0.0293 | −0.1166 | 0.1837 | 0.1838 | 0.0027 | 0.1865 |
| | COL | −0.0006 | 0.0977 | 0.0223 | −0.1203 | 0.1664 | 0.1655 | 0.0043 | 0.1698 |
| | CRI | −0.0041 | 0.0885 | 0.0402 | −0.1244 | 0.1704 | 0.1707 | 0.0251 | 0.1958 |
| | CYP | 0.0020 | 0.1058 | 0.0384 | −0.1222 | 0.1943 | 0.2183 | 0.0457 | 0.2639 |
| | ECU | 0.0030 | 0.0921 | 0.0311 | −0.1273 | 0.1865 | 0.1854 | 0.0292 | 0.2146 |
| | EGY | −0.0019 | 0.0861 | 0.0322 | −0.1256 | 0.2128 | 0.2037 | 0.0095 | 0.2132 |
| | GTM | −0.0006 | 0.0865 | 0.0370 | −0.1275 | 0.1847 | 0.1802 | 0.0231 | 0.2033 |
| | JOR | 0.0029 | 0.0917 | 0.0430 | −0.1248 | 0.2036 | 0.2164 | 0.0278 | 0.2443 |
| | KEN | −0.0015 | 0.0686 | 0.0513 | −0.1370 | 0.1919 | 0.1733 | 0.0187 | 0.1920 |
| | LKA | −0.0106 | 0.0815 | 0.0414 | −0.1275 | 0.1988 | 0.1835 | 0.0004 | 0.1839 |
| | SLV | −0.0011 | 0.0821 | 0.0454 | −0.1321 | 0.1904 | 0.1847 | 0.0409 | 0.2256 |
| | TTO | −0.0003 | 0.1048 | 0.0317 | −0.1153 | 0.1961 | 0.2170 | 0.0138 | 0.2308 |
| | ZWE | −0.0008 | 0.0366 | 0.0867 | −0.1483 | 0.2074 | 0.1816 | 0.0230 | 0.2046 |

**Table 1.1.** (*Continued*)

| | Country | SC | FTP | DTP | ATP | TEC | TFPG | ITP | TFPG[a] |
|---|---|---|---|---|---|---|---|---|---|
| | **Mean** | **−0.0019** | **0.0862** | **0.0408** | **−0.1268** | **0.1913** | **0.1895** | **0.0203** | **0.2099** |
| 2 | ARG | 0.0002 | 0.1057 | 0.0224 | −0.1129 | 0.1905 | 0.2058 | −0.0118 | 0.1940 |
| | BRA | −0.0022 | 0.1032 | 0.0224 | −0.1081 | 0.1683 | 0.1835 | −0.0442 | 0.1394 |
| | CHN | −0.0284 | 0.0925 | 0.0259 | −0.1070 | 0.2341 | 0.2171 | −0.0766 | 0.1405 |
| | HKG | −0.0131 | 0.1120 | 0.0273 | −0.1028 | 0.1682 | 0.1916 | −0.0141 | 0.1775 |
| | IDN | −0.0172 | 0.0972 | 0.0098 | −0.1166 | 0.1716 | 0.1448 | −0.0298 | 0.1150 |
| | IND | −0.0025 | 0.0857 | 0.0338 | −0.1119 | 0.1984 | 0.2034 | −0.0747 | 0.1288 |
| | IRN | −0.0023 | 0.1099 | 0.0075 | −0.1156 | 0.1881 | 0.1875 | −0.0050 | 0.1825 |
| | KOR | −0.0166 | 0.1088 | 0.0415 | −0.0914 | 0.2005 | 0.2428 | −0.0798 | 0.1630 |
| | MAR | −0.0114 | 0.0917 | 0.0209 | −0.1276 | 0.1864 | 0.1600 | −0.0061 | 0.1540 |
| | MEX | −0.0015 | 0.1140 | 0.0060 | −0.1049 | 0.1619 | 0.1755 | −0.0256 | 0.1500 |
| | MYS | −0.0135 | 0.1009 | 0.0280 | −0.1089 | 0.1789 | 0.1853 | −0.0238 | 0.1614 |