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THE STATE OF HOUSEHOLDS II

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Our website (www.KRInstitute.org) has interactive versions of all the charts in this report, where the underlying data can also be downloaded. If you are reading this on the PDF version, the charts link directly to our website.

CONTENTS

BOX ARTICLES

CHARTS

CHARTS

CHARTS

CHARTS

CHARTS

CHARTS

CHARTS

CHARTS

TABLES

TABLES

ABBREVIATIONS

AKPK	:	*Agensi Kaunseling dan Pengurusan Kredit* (Credit Counselling and Debt Management Agency)
APR	:	Annual percentage rate
ASB	:	*Amanah Saham Bumiputera*
ASEAN	:	Association of Southeast Asian Nations
b	:	billion
B40	:	Bottom 40%
BNM	:	*Bank Negara Malaysia* (Central Bank of Malaysia)
BR1M	:	*Bantuan Rakyat 1 Malaysia*
CAGR	:	Compound annual growth rate
CCM	:	Companies Commission of Malaysia
CPI	:	Consumer Price Index
DOS	:	Department of Statistics, Malaysia
DVS	:	Department of Veterinary Services, Malaysia
e	:	estimate
EIU	:	Economist Intelligence Unit
EPF	:	Employees Provident Fund, Malaysia
EPU	:	Economic Planning Unit, Malaysia
EU	:	European Union
FAMA	:	Federal Agriculture Marketing Authority, Malaysia
F&B	:	Food and non-alcoholic beverages
FAO	:	Food and Agricultural Organization of the United Nations
g	:	grams
GDP	:	Gross domestic product
HES	:	Household Expenditure Survey
HIS	:	Household Income and Basic Amenities Survey
ILO	:	International Labour Organization
IMF	:	International Monetary Fund
ISEAS	:	ISEAS-Yusof Ishak Institute
ITC	:	International Trade Centre
k	:	thousand

ABBREVIATIONS

kg	: kilograms
km	: kilometre
KOSIS	: Korean Statistical Information Service
LKIM	: *Lembaga Kemajuan Ikan Malaysia* (Fisheries Development Authority of Malaysia)
LPPKN	: *Lembaga Penduduk dan Pembangunan Keluarga Negara* (National Population and Family Development Board)
m	: million
M40	: Middle 40%
MAA	: Malaysian Automotive Association
MCMC	: Malaysian Communications and Multimedia Commission
MDG	: Malaysian Dietary Guidelines
MDTCC	: Ministry of Domestic Trade, Co-operatives and Consumerism, Malaysia
METS	: Malaysia External Trade Statistics
MOA	: Ministry of Agriculture, Malaysia
MOH	: Ministry of Health, Malaysia
MOHE	: Ministry of Higher Education, Malaysia
MOHR	: Ministry of Human Resources, Malaysia
MOM	: Ministry of Manpower, Singapore
MPC	: Malaysia Productivity Corporation
MPI	: Multidimensional Poverty Index
MyCC	: Malaysia Competition Commission
MysIDC	: Malaysia Informative Data Centre
NESDB	: National Economic and Social Development Board, Thailand
NPISH	: Non-profit institutions serving households
OECD	: Organisation for Economic Co-operation and Development
PMR	: *Penilaian Menengah Rendah*
PPP	: Purchasing power parity
PLI	: Poverty Line Income
RDA	: Recommended Dietary Allowance

ABBREVIATIONS

RM	: Ringgit Malaysia
SPM	: *Sijil Pelajaran Malaysia*
SINGSTAT	: Singapore Department of Statistics
SPMV	: *Sijil Pelajaran Malaysia Vokasional*
SRP	: *Sijil Rendah Pelajaran*
STPM	: *Sijil Tinggi Pelajaran Malaysia*
TDR	: Total dependency ratio
TFR	: Total fertility rate
tn	: trillion
T20	: Top 20%
UK	: United Kingdom
UN	: United Nations
UPSR	: *Ujian Penilaian Sekolah Rendah*
UPSRA	: *Ujian Penilaian Sekolah Rendah Agama*
US	: United States
USD	: United States Dollar
WP	: *Wilayah Persekutuan* (Federal Territory)
YOY	: Year-on-year

GLOSSARY

Adjusted disposable income	:	Disposable income available after taking into account social transfers in kind. See also "disposable income". *Source: UNECE (2011)*
Annual percentage rate (APR)	:	An annualised interest rate derived from the multiplication of the simple interest rate per period by the number of periods in a year. *Source: Moles, Parrino, and Kidwell (2011)*
Annualised rate of change	:	A calculated annual rate of return based on data that is not in annual terms. For example, if the monthly rate of return of 1.0% is maintained for a full year, the annualised rate of return would be 12.0%. *Source: OECD (2005a)*
Annuity	:	A form of financial contract where a person gives a lump sum of cash to a financial institution (usually a life insurance company) and in return receives a portion of the sum of money throughout his/her life, or for a specified period of time. *Source: OECD (2005b)*
Asymmetric price transmission	:	When price transmission differs according to the direction of price changes. For example, a certain supply shock may cause prices to rise, but a supply glut may not lead to prices dropping. *Source: Meyer and Cramon-Taubadel (2004)*
Compound annual growth rate (CAGR)	:	An annualised growth rate derived from a geometric progression ratio which provides a constant growth rate over a specified period. The formula is: CAGR = [(Ending value/Beginning value)$^{(1/\text{Number of time periods})}$ – 1] x 100 *Source: Anson, Fabozzi, and Jones (2010)*
Disposable income	:	Total income minus current transfers paid including contributions to other households, direct taxes, and zakat. The remaining amount reflects the actual income available for households. See also "adjusted disposable income". *Source: DOS (2015c)*
Double tax deductions	:	Refers to tax incentives whereby tax deductions are multiplied by two. For example, a tax deduction of 25.0% would instead be 50.0% under double tax deduction. *Source: Deloitte and TalentCorp Malaysia (2015)*

GLOSSARY

Employed persons : According to the Malaysian Department of Statistics (DOS) Labour Force Survey, employed persons are:

- Those who worked for at least one hour at any time during the reference week indicated in the Survey in exchange for pay, profit or family gain (as an employer, employee, own-account worker or unpaid family worker);
- Those who did not work during the reference week due to reasons including illness, injury, disability, bad weather, or leave but if they had a job, farm, or business to return to;
- Those who have been temporarily laid off (with pay) but are certain to be called back to work; and
- Those who worked less than 30 hours during the reference week because of the nature of their work or due to insufficient work.

Source: DOS (2016c)

Employment rate : The proportion of employed persons to the total number of individuals in the labour force. See also "labour force".
Source: DOS (2016c)

Financial sector : The sector made up of all resident corporations (ie those whose main economic interest is in the domestic territory) that are primarily engaged in financial intermediation (such as banking) or in closely-related services. This sector includes the Central Bank, other banks, other financial corporations, insurance companies, and pension funds.
Source: DOS (2015c)

Government sector : The sector made up of all government units that produce non-market services, including unincorporated government-owned enterprises. Government-owned corporations producing market goods and services are included either in the non-financial or financial sectors. In Malaysia, the government is divided into three sub-sectors: federal, state, and local government. See also "financial sector" and "non-financial sector".
Source: DOS (2015c)

GLOSSARY

Hardcore poverty	:	Refers to households with an income below the Food Poverty Line Income. See also "Poverty Line Income". *Source: DOS (2015e)*
Household sector	:	The sector made up of all resident households and non-profit institutions serving households, as well as unincorporated enterprises owned by these entities. See also "non-profit institutions serving households". *Source: DOS (2015c)*
Inflation	:	A general increase in prices, usually expressed as an annual percentage rate of change.
Labour force	:	This refers to the manpower available in the economy. It comprises those who are between the ages of 15 and 64, and includes both the employed and the unemployed. *Source: DOS (2016c)*
Labour force participation rate	:	The ratio of the number of individuals in the labour force to the number of working age people (between the ages of 15 and 64) in the population. *Source: DOS (2016c)*
Leverage ratio	:	The amount of debt an economic agent has in relation to its equity. The more debt a household has relative to equity, the higher the leverage ratio. *Source: Carlin and Soskice (2014)*
Non-financial sector	:	The sector made up of all resident corporations (ie those whose main economic interest is in the domestic territory) that are primarily engaged in the production of market goods or non-financial services. See also "financial sector". *Source: DOS (2015c)*
Non-profit institutions serving households (NPISH)	:	Institutions which provide goods or services to households for free or at significantly reduced prices. These institutions are not generally financed and/or controlled by the government. Examples of such institutions are religious societies, trade unions, and political parties. *Source: DOS (2015c)*

GLOSSARY

Poverty Line Income (PLI)	:	The monthly income earned by a household below which the household would be considered poor. The PLI is composed of the Food PLI and the Non-Food PLI. The Food PLI is defined as the amount of income necessary to meet a household's daily nutritional requirements as determined by the Ministry of Health (MOH). The Non-Food PLI is defined as the amount of income necessary to meet the basic amenities required by a household. See also "hardcore poverty". *Source: DOS (2015e)*
Price-administered policies	:	This refers to policies whereby policymakers either directly or indirectly determine prices. *Source: OECD (2013)*
Purchasing power parity (PPP)	:	A conversion factor to represent the number of units of a country's currency that is required to buy the same amount of goods and services in the domestic market as one USD would buy in the United States (US). The PPP allows for a comparison of the cost of the bundle of goods that make up gross domestic product (GDP) across countries. *Source: World Bank (2016b)*
Reverse mortgage	:	A financial agreement between a financial institution and a homeowner that allows the homeowner to exchange the equity tied to the home for cash. Through this home mortgage arrangement, the financial institution regularly provides a certain amount of cash to the homeowner until the day they die, sell off their home, or move out. *Source: Federal Reserve (2016)*
Savings	:	Disposable income minus final consumption expenditure, or adjusted disposable income minus actual final consumption, taking into account an adjustment for pension funds. See also "disposable income" and "adjusted disposable income". *Source: DOS (2015c)*
Seasonality	:	A condition where movements in a given time series experience predictable changes that recur every year during the same periods. *Source: European Commission (2016)*

GLOSSARY

Total dependency ratio : Refers to the ratio of the number of persons aged below 15 years plus the number of persons aged 65 years and over to the number of persons aged between 15 and 64 years.
Source: World Bank (2016b)

Unemployed persons: The unemployed are classified into the actively unemployed and inactively unemployed. The actively unemployed include all persons who did not work but were available for work and were actively looking for work during the reference week (of the DOS Labour Force Survey). Inactively unemployed persons include the following categories:

- Persons who did not look for work because they believed no work was available or that they were not qualified;
- Persons who would have looked for work if they had not been temporarily ill or had it not been for bad weather;
- Persons who were waiting for the results of job applications; and
- Persons who had looked for work prior to the reference week.

Source: DOS (2016c)

Unemployment rate : The proportion of unemployed persons to the total number of individuals in the labour force. See also "labour force".
Source: DOS (2016c)

EXECUTIVE SUMMARY

This report is the second in the Khazanah Research Institute's (KRI's) publication series on the State of Households. This publication series generally seeks to outline some of the pressing issues of the nation, particularly those revolving around households. In this edition, we focus on developments in household well-being between the 2012 and 2014 Household Income and Basic Amenities Surveys (HIS) published by the Malaysian Department of Statistics (DOS). This edition also features three topics of discussion: households and food, women in the workforce, and population ageing.

The Malaysian economy weathered through significant headwinds in 2014 and 2015—such as the fall in commodities prices, a dismal global trade environment, and a weakened Ringgit—to emerge relatively unscathed. Nominal GDP grew 22 times from 1980 to 2015, while nominal GDP per person grew 9.9 times in the same period. Malaysia's GDP per person remains higher than the average for upper middle income countries, and exceeds that of Brazil, Mexico, and Turkey, albeit below the world average when measured in USD market rates.

Household incomes expanded impressively between the 2012 HIS and 2014 HIS. While nominal GDP per person grew at a compound annual growth rate (CAGR) of 5.4%, average and median nominal incomes grew even faster at CAGRs of 10.8% and 12.4%, respectively. In absolute terms, this meant that average monthly household incomes grew by RM1,141, while median household incomes grew by RM959 per month. The progress in household incomes in turn drove the reduction in the poverty rate, which stood at 0.6% in 2014 compared to 1.7% in 2012. More significantly, hardcore poverty has very nearly been eradicated, with only an estimated 400 households remaining in this group.

In addition, the distribution of incomes also improved between 2012 and 2014, with incomes for households in the bottom 40% (B40) growing at a faster pace than those for the middle 40% and top 20% of households (M40 and T20, respectively). This has led to a narrowing of income gaps as well as a reduction in the Gini coefficient, from 0.431 in 2012 to 0.401 in 2014.

Household income growth did not seem to be driven by an accompanying expansion in salaries and wages, which is the source of more than 60% of household incomes. Indeed, during 2012 – 2014, nominal salaries and wages grew at the much slower pace of 3.3% in CAGR terms, and only by 1.0%, adjusted for inflation. In addition, paid employment fell as a source of income for the top 60% of households, which have become slightly more reliant on income from current transfers as well as property and investments.

As expected, households in the B40 are the most dependent on current transfers as a source of income compared to the M40 and T20 households. B40 households source nearly one-fifth of their income from current transfers. Part of the increase in the share of household income sourced from current transfers may be due to the inclusion of *Bantuan Rakyat 1 Malaysia* (BR1M) payments as part of the calculation for household incomes for the first time in the 2014 HIS.

Most of household expenditure is on housing, food (at home and away from home), and transport. Car ownership remains high (83.9% of all households owned a car in 2014) and there has been a rise in bicycle ownership. Almost all households have a gas or electric stove, refrigerator, and washing machine, and 43.3% owned an air-conditioner in 2014.

We find that a sizeable number of households are also less able to afford nutritious food. Food prices continue to increase for some items against global trends, signalling the existence of anomalies in their prices, which may warrant further investigations into the structure and competitive practices of the markets for these foods. This report highlights three examples of food items where such price anomalies have been observed, namely vegetables, milk, and chicken.

Meanwhile, relatively low labour productivity growth may be suppressing growth in salaries and wages. Indeed, the former has been trending below the latter over the past five years. Continuing stagnation in wage growth could potentially negatively affect household incomes which may be reflected in future HIS. Household incomes may also be negatively affected if unemployment—which rose from 2.9% to 3.1% between 2014 and 2015—continues to rise. The rise in youth unemployment has been of particular concern, with those aged 20 – 24 years as well as those aged 25 – 29 making up the two largest cohorts of the unemployed.

Women's labour force participation has increased markedly, from 45.7% in 2008 to 54.1% in 2015, but still lower when compared to their counterparts in other countries such as Singapore and Thailand. Malaysian women have a lower rate of re-entry into the workforce once they have left it, which tends to occur after they have reached childbearing age. According to the 2015 Labour Force Survey Report, the majority of women outside the labour force cite housework as their reason for not participating in the workforce. The World Bank estimates that the number of 'absent women'—women who could be expected to be in the labour market given Malaysia's level of development but are not—range from 500,000 to 2.3 million.

Malaysia is fast becoming an ageing nation, as a result of longer life expectancies and falling fertility rates. Providing income security for the elderly and reducing financial pressure on the healthcare system are among the key concerns in the near future.

Overall, the state of Malaysia's households has improved between 2012 and 2014. However, we need to be cognisant of emerging challenges, including the issues associated with stagnant productivity growth, population ageing, and rising food costs highlighted in this report. Safeguarding the well-being of Malaysian households will require significant structural measures.

INTRODUCTION

INTRODUCTION

In November 2014, the Khazanah Research Institute (KRI) published the *State of Households* report, which outlined some of the pressing issues of the nation, particularly those revolving around households. Since its publication, there has been a growing realisation that household incomes and expenditure are as important a yardstick of the nation's well-being as more aggregate measures such as the gross domestic product (GDP).

The inaugural *State of Households* report relied heavily on publicly available data sources for household well-being, especially the 2012 Household Income and Basic Amenities Survey (henceforth referred to as the Household Income Survey, HIS) and the 2010 Household Expenditure Survey (HES) published by the Malaysian Department of Statistics (DOS). With the publication of the reports for the 2014 HIS and the 2014 HES in June and November 2015, respectively, we can now observe the changes in household well-being—as measured by household income, expenditure, as well as issues surrounding income and wealth inequalities—that have occurred between 2012 and 2014.

In the *State of Households II* therefore, we examine:

The state of households

Building on the understanding that households are the foundation for exploring the issues Malaysia faces, we continue to look at:

- Developments in household incomes and basic amenities, particularly between 2012 and 2014;
- The sources of household incomes, with an explanation on imputed rent and how it affects a household's 'balance sheet';
- Disparities in household incomes and wealth;
- Household spending, particularly on whether households can afford sufficiently nutritious food; and
- Household savings and debt.

The Malaysian workforce

Wages and salaries are by far the most significant source of household incomes, and so this report sets out:

- The composition of Malaysia's salaried workers and the wage structure; and
- Labour force participation, focusing on women in the workforce.

Population ageing

While household incomes have shown improvements between 2012 and 2014, there may be challenges in the long run. One development that should be scrutinised is population ageing. This report therefore examines:

- The factors driving population ageing in Malaysia and its potential implications; and
- Options for policy responses.

These are by no means the only pressing issues for Malaysia. What the State of Households series aims to do is to draw attention to those directly affecting household well-being, while also indicating areas in which KRI will conduct more in-depth research. For instance, the issue of housing affordability highlighted in the first *State of Households* was expanded in the *Making Housing Affordable* report, which has since contributed towards extensive policy discussions on creating a more affordable housing market for Malaysians. Our work on trade and investment was further developed in the two *Why Trade Matters* reports aimed at broadening the understanding of the relationship between trade policies and wider issues such as labour, food, and healthcare services.

SECTION 01

STATE OF HOUSEHOLDS

SECTION 1

THE STATE OF HOUSEHOLDS

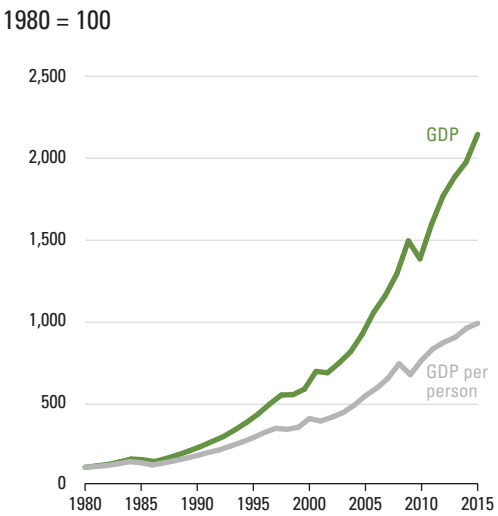
GDP and household incomes have grown

The Malaysian economy faced some headwinds in 2014 and 2015: among others, the precipitous fall in oil prices as well as other commodities, weak external trade growth due to the dismal global economy, and a weakening Ringgit. However, economic growth continued apace in the face of these challenges, with signs that its benefits are indeed trickling to households.

Our nominal GDP grew 22-fold from RM53.5b in 1980 to RM1.2tn in 2015, while nominal GDP per person grew 9.9 times from RM3,853 to RM38,142 during the same period (Chart 1). Although between 2012 and 2015 nominal GDP per person dropped from USD10,432 to USD9,766 when measured in market exchange rates, it rose from USD23,100 to USD26,891 in purchasing power parity (PPP) terms, as shown in Table 1.

Despite headwinds, the Malaysian economy continues to prosper

Chart 1: Index of Malaysian nominal GDP and GDP per person, 1980 – 2015



Source: CEIC (n.d.)

Table 1: Nominal GDP per person for middle income countries, 2015

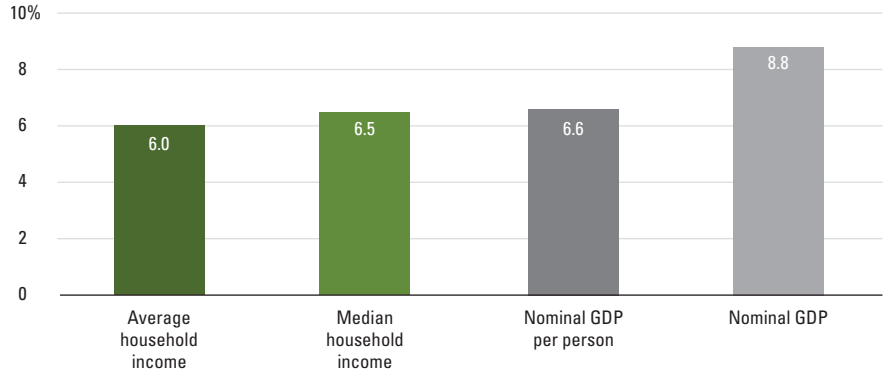
Country	USD	Current International $
Costa Rica	10,630	15,377
World	9,996	15,465
MALAYSIA	**9,766**	**26,891**
East Asia & Pacific	9,337	15,693
Turkey	9,130	19,618
Mexico	9,009	17,277
Brazil	8,539	15,359
Upper middle income	7,737	15,697

Note: Current international dollar ($) denotes the value of GDP in PPP terms.
Source: World Bank (2016b)

While growth of GDP per person does not always translate into growth in household incomes, for Malaysia, household incomes have grown with GDP. Between 1995 and 2014, nominal GDP per person grew by a compound annual growth rate (CAGR) of 6.6%, marginally faster than average and median household incomes, which grew by 6.0% and 6.5%, respectively (Chart 2).

Household income growth has kept pace with GDP expansion

Chart 2: Nominal growth rates (CAGR), 1995 – 2014

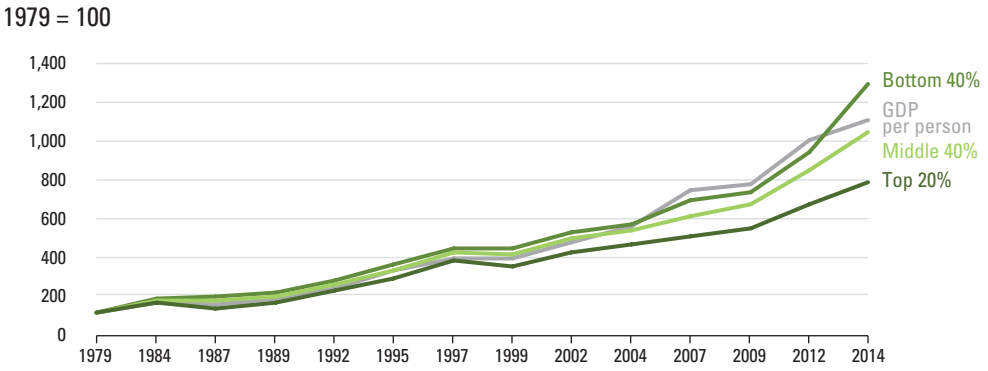


Source: DOS (2015e) and CEIC (n.d.)

Incomes have also grown faster for the poorest households. Between 2012 and 2014, the average household income of the bottom 40% of households (the B40) has risen faster than those of the other income groups as well as overall GDP per person (Chart 3).

Incomes for the B40 have grown the fastest

Chart 3: Index of nominal GDP per person and nominal average household income, 1979 – 2014

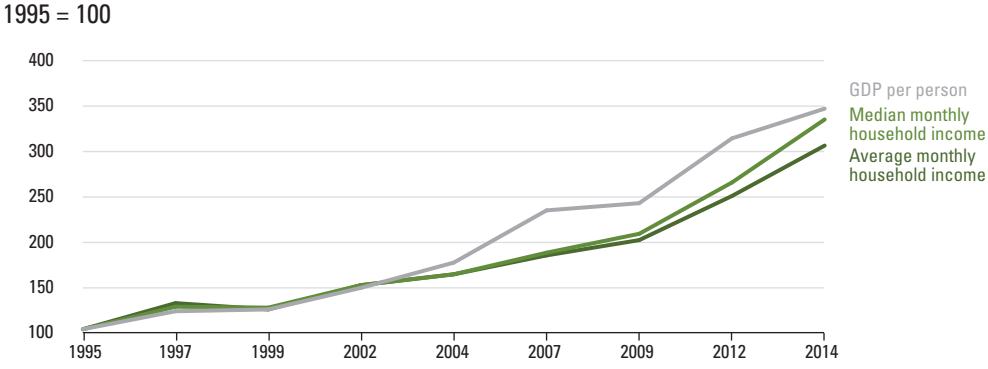


Note: The years featured in the chart are those with published data.
Source: DOS (2015e) and CEIC (n.d.)

Finally, the median monthly household income has grown sharply compared to the average monthly household income and GDP per person (Chart 4), which again suggests that growth has benefited the less well-off.

Growth in median monthly household incomes has outpaced the average

Chart 4: Index of nominal GDP per person and household income, 1995 – 2014



Note: The years featured in the chart are those with published data.
Source: DOS (2015e) and CEIC (n.d.)

We refer to the median household income because the average figure does not reflect the true picture of the income of most households as it can be distorted by the incomes of the very well-off. Malaysia's average household income in 2014 was RM6,141 per month, but median household income was RM4,585. In addition:

- 11.7% of households earned less than RM2,000 per month;
- 42.1% earned less than RM4,000 per month; and
- 65.0% earned less than RM6,000 per month.

Beyond the national level, all states saw improvements in nominal GDP as well as nominal GDP per person between 2012 and 2014 (Chart 5 and Chart 6).

GDP and GDP per person improved for all states

Chart 5: Nominal GDP, by state, 2012 and 2014

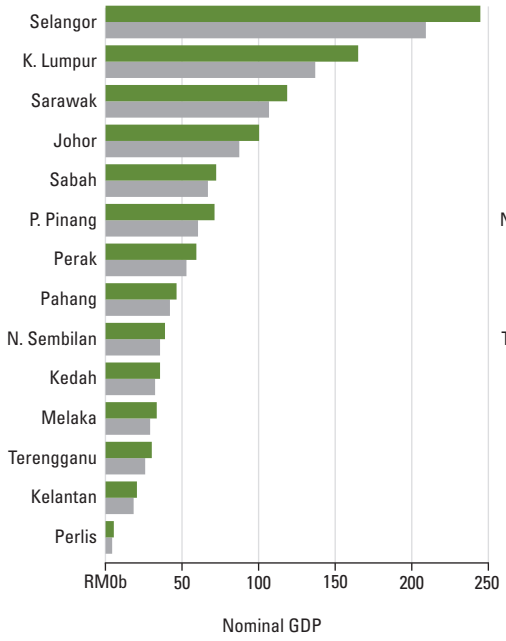
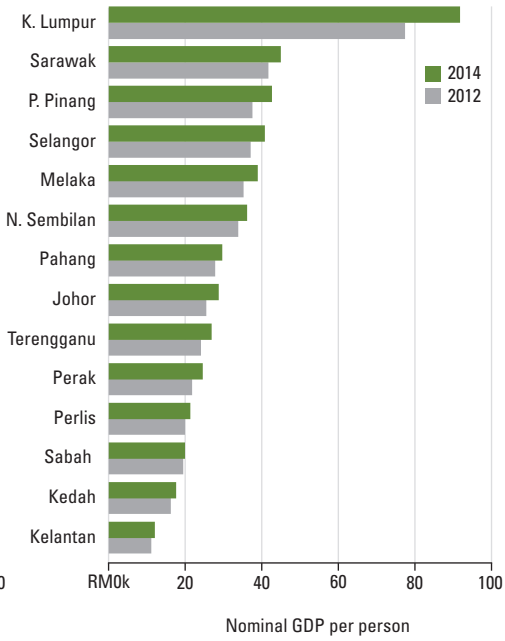


Chart 6: Nominal GDP per person, by state, 2012 and 2014



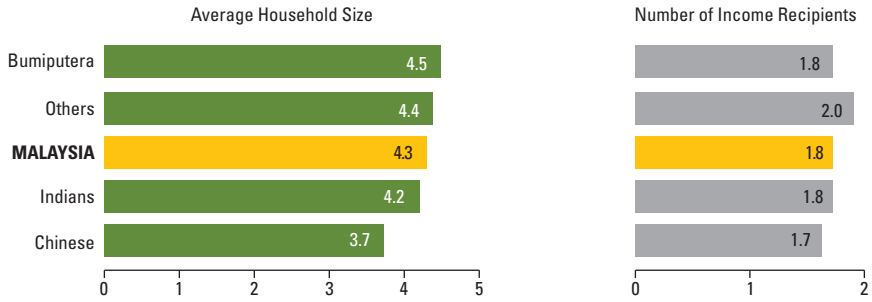
Source: DOS (2015i)

About Malaysian households

The average Malaysian household has around four members with two breadwinners, and there are more households with multiple income recipients than there are single-income households (Chart 7 and Chart 8).

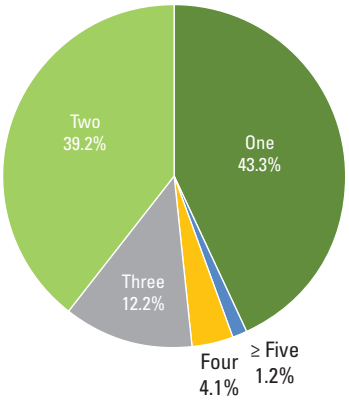
The average Malaysian household has 1.8 income recipients

Chart 7: Average household size and number of income recipients, 2014



Source: DOS (2015e)

Chart 8: Household distribution, by number of income recipients per household, 2014



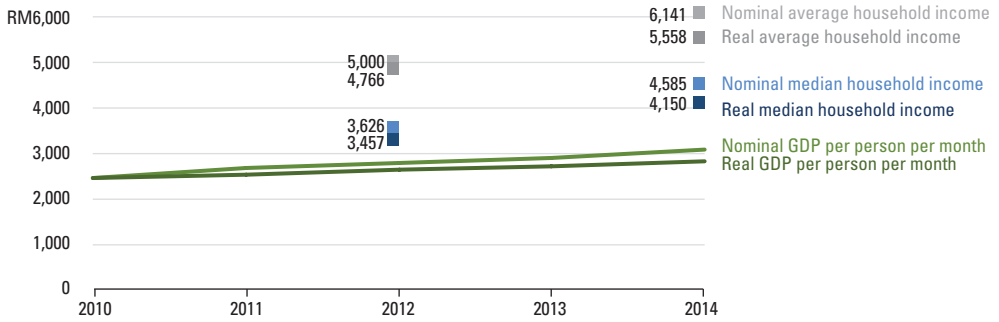
Source: DOS (2015e)

For households, progress since 2012 has been dramatic

The expansion in household incomes between the 2012 HIS and the 2014 HIS has been impressive, both in nominal and real terms. While nominal GDP per person grew by a CAGR of 5.2% during the period, the average and median nominal monthly household incomes grew by a CAGR of 10.8% and 12.4%, respectively (Chart 9). In real terms (after adjusting for inflation), average and median monthly household incomes rose by 8.0% and 9.6%, respectively, compared to real GDP per person growth of 3.8% (Chart 9).

Household incomes grew faster than GDP per person between 2012 and 2014

Chart 9: GDP per person and household incomes, nominal and real terms, 2010 – 2014 (RM)



Source: DOS (2015e) and CEIC (n.d.)

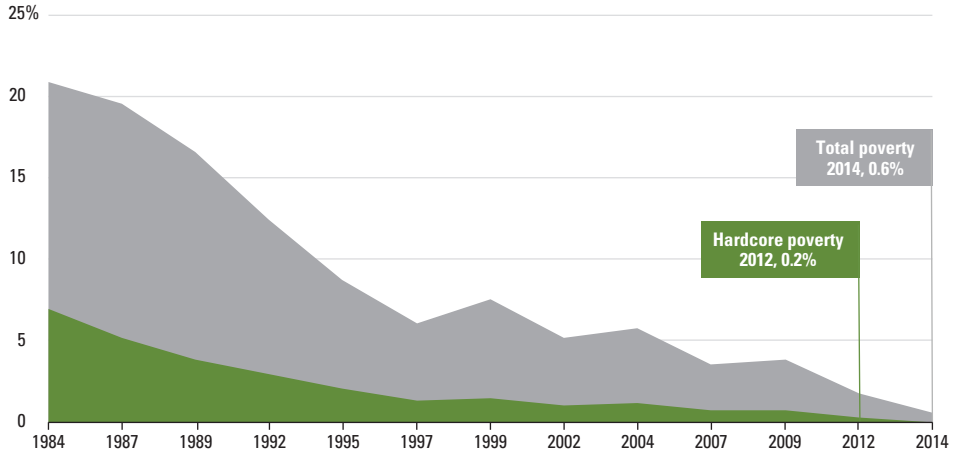
The overall poverty rate[1] fell by more than half from 1.7% to 0.6% between 2012 and 2014, and hardcore poverty[2] has almost disappeared, falling from 0.2% to 0.06% (or about 400 households) during the same period (Chart 10).

1 In the 2014 HIS, the poverty rate is defined as the percentage of households whose monthly incomes lie below the following poverty lines:
Peninsular Malaysia: RM930
Sabah: RM1,170
Sarawak: RM990
Peninsular Malaysia urban: RM940
Sabah urban: RM1,160
Sarawak urban: RM1,040
Peninsular Malaysia rural: RM870
Sabah rural: RM1,180
Sarawak rural: RM920

2 Defined as the percentage of households earning less than the Food Poverty Line Income (PLI). Source: DOS (2015e)

Hardcore poverty has almost disappeared

Chart 10: Hardcore and total poverty, 1984 – 2014



Source: DOS (2015e)

Despite this significant achievement, there are still some pockets of poverty. According to the 11th Malaysia Plan, the poverty rate for Orang Asli in Peninsular Malaysia remains high at 34.0%, and for Bumiputeras in Sabah and Sarawak, at 20.2% and 7.3%, respectively[3]. In addition, although the poverty rate is 0.6%, 11.7% of households earn less than RM2,000 and are therefore vulnerable to shocks.

As part of the steps being taken to completely eradicate poverty in Malaysia, a key pillar of the 11th Malaysia Plan is the shift in focus from absolute to multidimensional poverty (see Box 1).

3 EPU (2015)

Box 1: Multidimensional Poverty Index

The 11th Malaysia Plan 2016 – 2020, launched in 2015, introduced a Multidimensional Poverty Index (MPI), which broadens the definition of poverty to include vulnerabilities in health, living standards, and education attainment. By considering facets of well-being beyond income, the MPI departs from the current practice in Malaysia of measuring poverty based solely on the Poverty Line Income (PLI). The MPI will complement the PLI in identifying the extent of poverty in the country.

Under the MPI, the four major dimensions of poverty are income, education, health, and living standards. With the exception of the income indicator—which is based on mean monthly household income vis-à-vis the PLI—the other three indicators branch out into a few sub-indicators, as shown in Table 2.

Table 2: Dimensions, indicators, cut-offs, and weights for the MPI

Dimension	Indicator	Deprivation Cut-offs	Weight
Education	Years of schooling	All household members aged 17 – 60 have less than 11 years of education	1/8
	School attendance	Any school children aged 6 – 16 not schooling	1/8
Health	Access to health facilities	Distance to health facility is more than three kilometres away and no mobile health facility is provided	1/8
	Access to clean drinking water supply	Other than treated pipe water inside house and public water/stand pipe	1/8

Dimension	Indicator	Deprivation Cut-offs	Weight
Living Standards	Condition of living quarters	Dilapidated or deteriorating	1/24
	Number of bedrooms	More than two members per room	1/24
	Toilet facility	Other than flush toilet	1/24
	Garbage collection facility	No facility	1/24
	Transportation	All members in the household do not use either private or public transport to commute	1/24
	Access to basic communication tools	Does not have radio or television, and fixed line phone or mobile phone, and PC/laptop or internet	1/24
Income	Mean monthly household income	Mean monthly household income less than PLI	1/4

Source: EPU (2015)

The MPI measures the incidence and intensity of poverty as when a household meets at least 30% of the deprivation cut-offs. However, the 11th Malaysia Plan does not tell us what the poverty rate would be if the MPI is used instead of the PLI.

The MPI is the result of a growing realisation among researchers and policymakers that poverty is a multi-faceted phenomenon. It was first adopted by the United Nations Development Programme's Human Development Report in 2010, replacing the Human Poverty Index that had been used by the organisation since 1997. The adoption of the index acknowledges that different facets of deprivation bear upon those living in poverty, and identifying these different indicators of poverty is valuable for enabling customised policy interventions. The target groups under the Plan are the urban and rural poor, low-income groups in urban and rural areas, and households considered vulnerable.

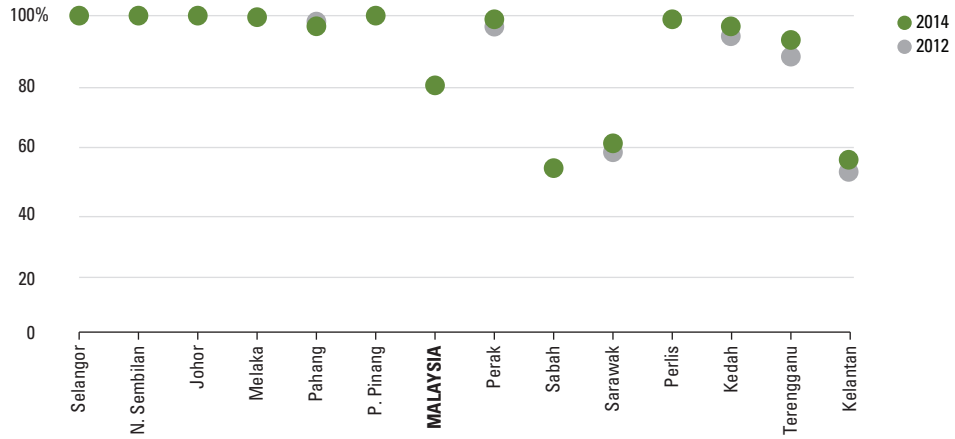
Infrastructure for the northern peninsula states, Sabah, and Sarawak continues to improve

As work on the MPI suggests, well-being is not just restricted to income alone, but is also related to living standards. In this respect, the 2014 HIS findings indicate that conditions have also improved in states that were lagging behind in terms of basic infrastructure. While almost all households have access to electricity, improvements in rural households in Kedah, Kelantan, Sabah, Sarawak, and Terengganu can be seen in areas such as access to pipe water (Chart 11), proximity to secondary schools (Chart 12), and proximity to health facilities (Chart 13).

On another note, despite toilet facilities other than flush toilets being listed as a sign of deprivation in the MPI, the 2014 HIS for the first time did not have data on households with *'tandas curah'* (non-flush toilets).

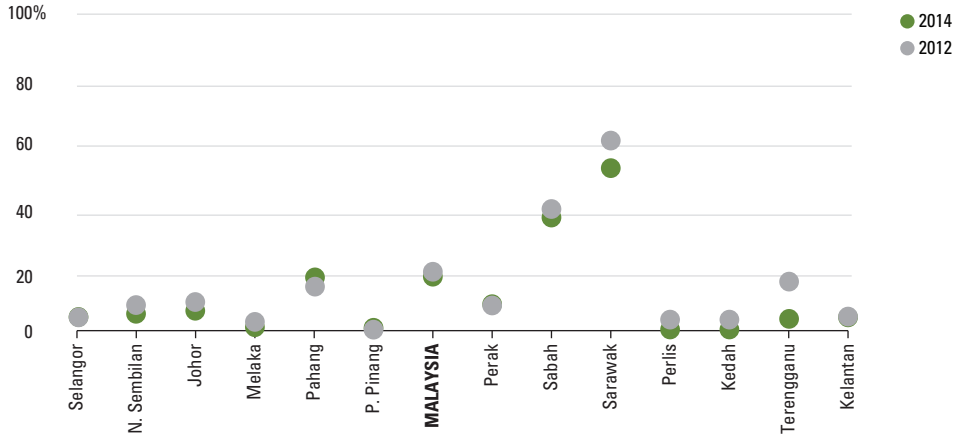
Basic infrastructure provision has improved

Chart 11: Rural households with access to pipe water, 2012 and 2014 (percentage)



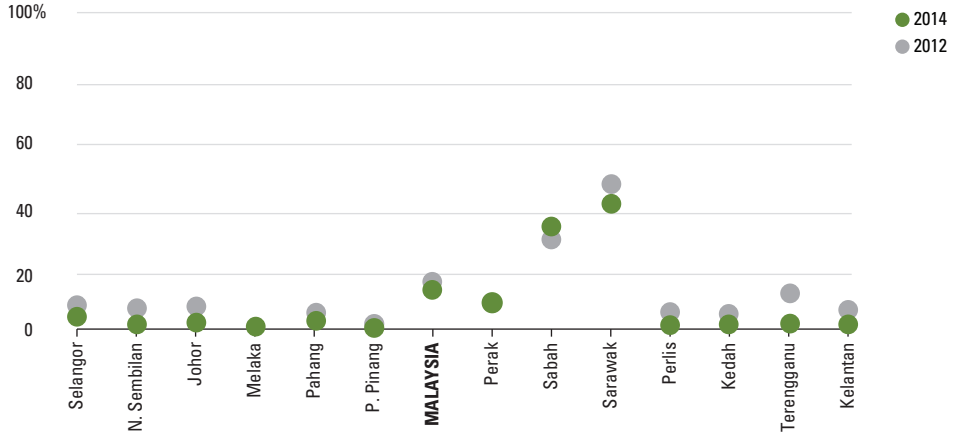
Source: DOS (2015e) and DOS (2013a)

Chart 12: Rural households located >9km from a secondary school, 2012 and 2014 (percentage)



Source: DOS (2015e) and DOS (2013a)

Chart 13: Rural households located >9km from a public health centre, 2012 and 2014 (percentage)



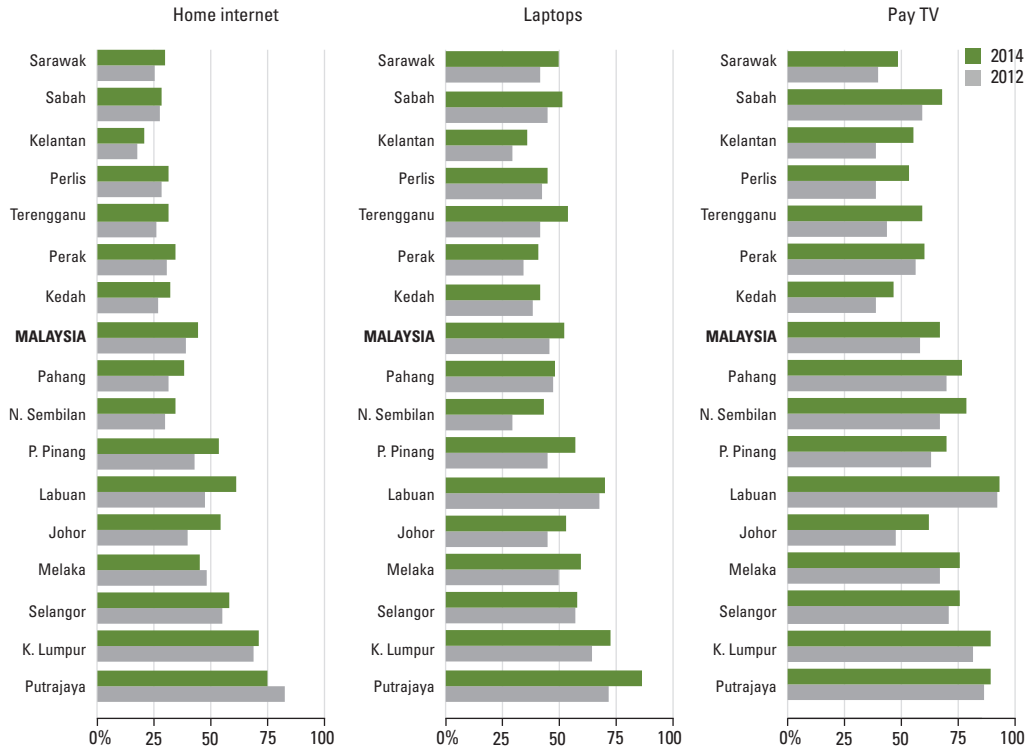
Source: DOS (2015e) and DOS (2013a)

We are a wired nation

44.3% of all households have internet access, 52.8% have laptops, and 65.9% have Astro (Chart 14). According to the Malaysian Communications and Multimedia Commission (MCMC), there were 11 million smartphone users in 2014 (around one in three people) and the broadband penetration rate in the second quarter of 2015 stood at 72.2%[4].

Almost all households have screen time

Chart 14: Household ownership of home internet, laptops, and paid TV, 2012 and 2014 (percentage)



Source: DOS (2015e) and DOS (2013a)

4 Malaysian Digest (2015). While internet access refers to households that have internet subscriptions, broadband penetration also includes households that access the internet through other means, such as 1Malaysia Internet Centres and Community WiFi Programmes.

SECTION 1

STATE OF HOUSEHOLD INCOMES

Current transfers are growing as a share of household income

What accounted for the dramatic increase in household incomes between the 2012 HIS and the 2014 HIS? Although wages and salaries are the largest source of incomes for heads of households (2012: 66.6%; 2014: 65.0%—see Chart 15), these only rose by 3.3% nominally, and 1.0% in real terms between 2012 and 2014[5]. By comparison, incomes from current transfers[6] as well as property and investment comprised a higher percentage of the main income source for households in 2014 compared to 2012.

Part of the increase in the proportion of household income sourced from current transfers may be due to the inclusion of *Bantuan Rakyat 1 Malaysia* (BR1M) payments as part of the calculation for household incomes for the first time in the 2014 HIS. Before 2014, BR1M payments were not calculated as part of household income. As of August 2014, the government had distributed an estimated RM3.6b in BR1M payments to 4.6 million households and 2.3 million individuals[7]. This also partly explains the relatively greater increase of the B40 incomes between 2012 and 2014.

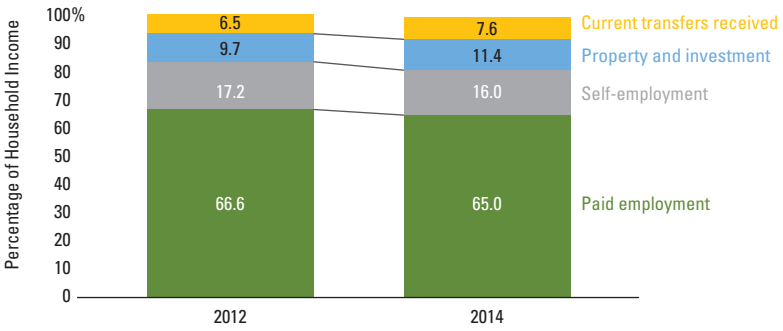
5 DOS (2016d)

6 Defined as cash, goods, and services transferred between households, between government and households, or between households and charities, within and outside the country. Examples include educational aid, zakat, and BR1M payments. Source: DOS (2015e)

7 MOF (2015)

Current transfers grew as a share of household income

Chart 15: Main sources of income for heads of households, 2012 and 2014 (percentage)



Note: The numbers shown are subject to rounding errors.
Source: DOS (2015e)

For the top 60% of households, wages have fallen as a share of their income

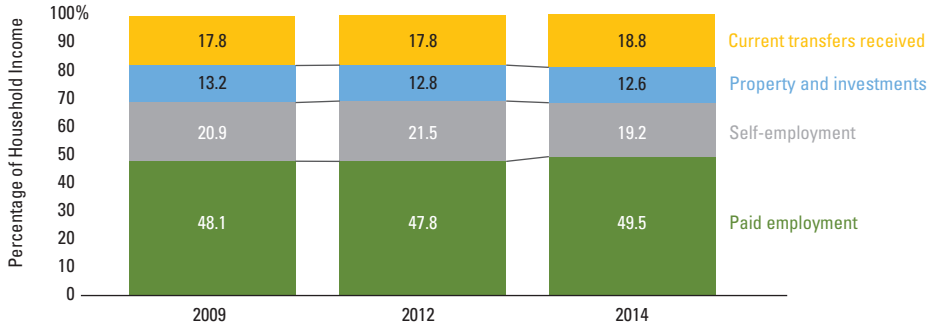
For the middle 40% and top 20% (the M40 and T20, respectively) households, the proportion of household incomes from paid employment has steadily decreased over the past three HIS periods (Chart 16 to Chart 18). The converse is true for the B40 households, where the share of wages in total household income has risen from 48.1% in 2009 to 49.5% in 2014.

Although households in the B40 are the most dependent on current transfers—which include BR1M payments—the T20 and M40 households have also seen their share of current transfers in household incomes rise over the past three HIS periods.

Households in the B40 of the income distribution source almost one-fifth of their income from current transfers. They also source another one-fifth of their income from self-employment. The share of income from property and investment is also the highest among the B40 group.

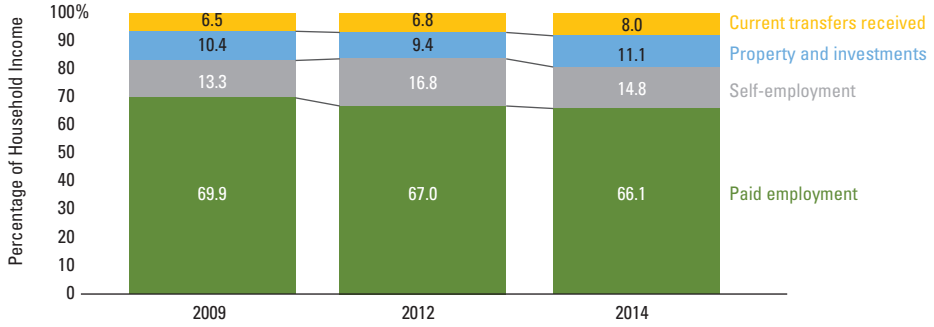
B40 households are more dependent on current transfers as an income source compared to T20 and M40 households

Chart 16: Sources of household income for the B40 households, 2009 – 2014 (percentage)



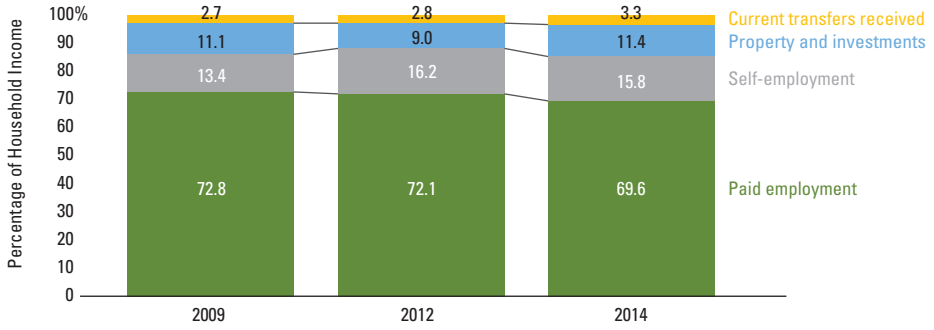
Note: The numbers shown are subject to rounding errors.
Source: DOS (2016a)

Chart 17: Sources of household income for the M40 households, 2009 – 2014 (percentage)



Note: The numbers shown are subject to rounding errors.
Source: DOS (2016a)

Chart 18: Sources of household income for the T20 households, 2009 – 2014 (percentage)

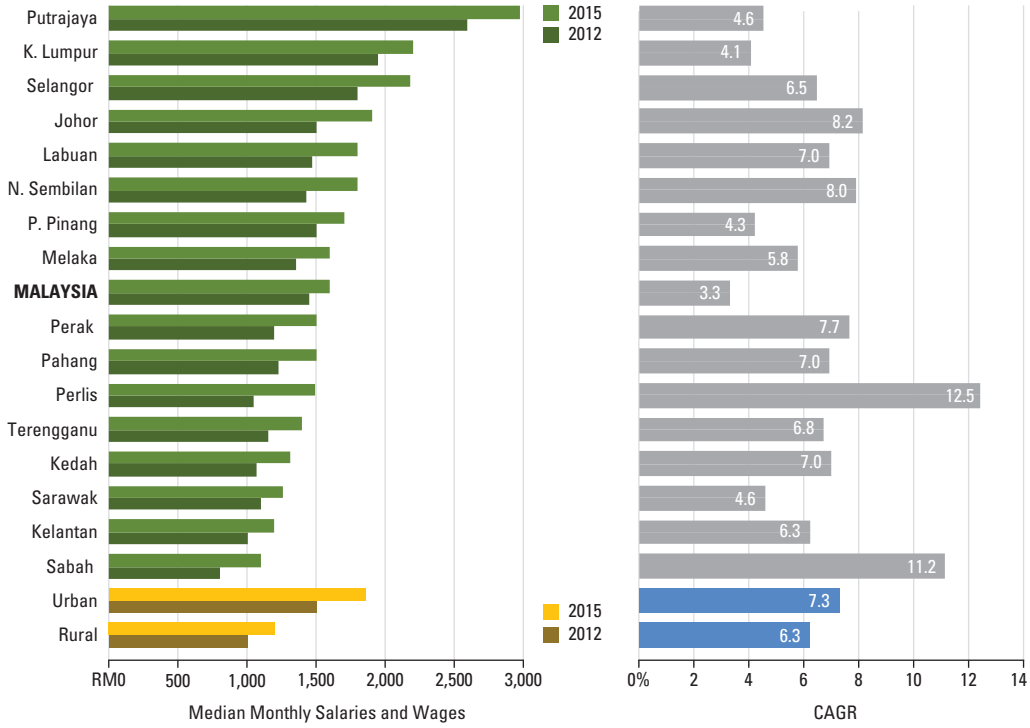


Note: The numbers shown are subject to rounding errors.
Source: DOS (2016a)

There is however, a wide variation in wage growth among the states. Between 2012 and 2015, median monthly wages in Kuala Lumpur grew at the slowest pace at a CAGR of 4.1%. By contrast, wages in Perlis grew the fastest, at 12.5% (Chart 19). In 2015, median and average monthly wages were RM1,600 and RM2,312, respectively.

Wages grew the slowest in Kuala Lumpur and the fastest in Perlis

Chart 19: Change of median monthly wages between 2012 and 2015



Source: DOS (2016d)

How are incomes from property and investment measured?

Between 2012 and 2014, the share of household income from property and investment grew from 9.7% to 11.4%. According to the 2014 HIS, property income is defined as "receipts that arise from the ownership of assets, interest, dividends, and rent". These include:

- Property income, which is typically monetary returns from financial (interest, dividends) and non-financial assets (rent) and from royalties;
- Dividends from investments in an enterprise in which the recipient is not involved in company activities;
- Rents, defined as payments received from assets (such as land and houses) consumed by others; and
- Imputed rent for homes occupied by their owners.

All these items are based on actual valuations, except for imputed rent, defined as the estimated value of housing services provided by owner-occupier homes, less the associated costs such as assessment rates and quit rent. What this means is that while owner-occupied homes do not provide an actual income to the households living in them, their value to the household is imputed by using a proxy, and this value is added to the household's income.

Box 2 explains how imputed rent can add to household income as estimated in the HIS, but may not necessarily add to actual household income.

Box 2: Imputed rent and the household 'balance sheet'

Imputed rent in the HIS

Imputed rent is estimated based on the on-going actual rent of similar houses in the neighbourhood and is reported as part of income from property and investments in the HIS. It could be argued that the inclusion of imputed rent may overstate a household's actual income, as that household is not really receiving actual payment on imputed rent.

Imputed rent in the HES

However, imputed rent is also reported in the HES as part of expenditure on housing for owner-occupied homes (for rented homes, actual rent payments are recorded). While this may seem to overstate the household's own expenditure, it should be noted that the household expenditure reported in Malaysia's HES does not include payment on capital or interest instalments for housing loans, and therefore imputed rent may serve as a proxy for these payments. On the other hand, if the household has already paid off the loan for the house they are staying in, or otherwise own the home outright, the inclusion of imputed rent as part of the household's expenditure may overstate the household's actual expenditure.

How does imputed rent affect the household 'balance sheet'?

At the household level, imputed rent may affect the household's own account in different ways, depending on the state of ownership of the home they are living in. This refers specifically for households in the sample which were required to answer both the HIS and HES:

• If the household lives in an owner-occupied home, and is currently paying its housing loan instalment:	The inclusion of imputed rent as part of household income may overstate the household's actual income received. While the inclusion of imputed rent (but not housing loan payments) as part of household expenditure may serve as a proxy for housing loan payments, in reality these payments are made out of the household's actual income, rather than income augmented by imputed rent. Eg: • Actual disposable income = Income – taxes – housing loan – other expenditures • Disposable income as recorded in HIS and HES = (Income + imputed rent as income) – taxes – imputed rent as expenditure (proxy for housing loan) – other expenditures • Disposable income as recorded in HIS and HES = Actual disposable income + imputed rent as income
• If the household lives in an owner-occupied home, and has paid off its housing loan in full:	The inclusion of imputed rent as part of household income may overstate the household's actual income received, but this effect may be cancelled out by the fact that imputed rent is also included as part of household expenditure. Eg: • Disposable income as recorded in HIS and HES = (Income + imputed rent as income) – taxes – imputed rent as expenditure – other expenditures • Disposable income as recorded in HIS and HES = Actual disposable income
• If the household lives in rented accommodation:	Imputed rent is not included as either household income or household expenditure and therefore has no effect on the household's accounts.

The examples above also indicate that for households living in owner-occupied homes but are still paying off their housing loan instalments, the accuracy of imputed rent as a proxy for these payments depends on the value of the imputed rent calculated compared to the payments for housing loan.

SECTION 1

INEQUALITY

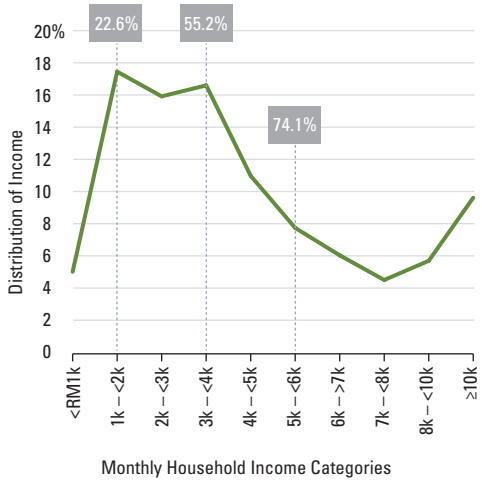
Income distribution has improved …

The expansion in household incomes between 2012 and 2014 was also accompanied by improvements in household income distribution (Chart 20). As Table 3 shows, fewer households have incomes below RM2,000 and more households have incomes above RM10,000.

Household incomes have undergone step-wise improvement

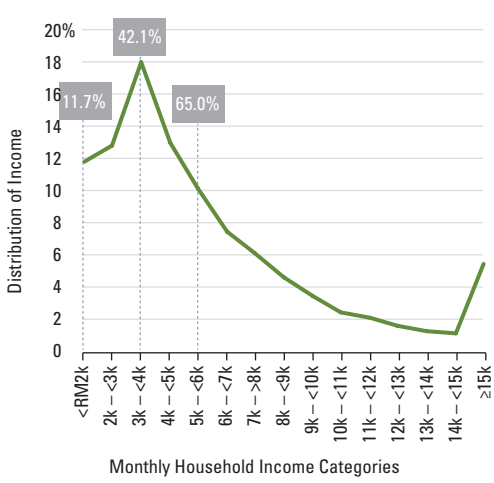
Chart 20: Household income distribution

(a) 2012



Source: DOS (2013a)

(b) 2014



Source: DOS (2015e)

Table 3: Distribution of household income, 2012 and 2014

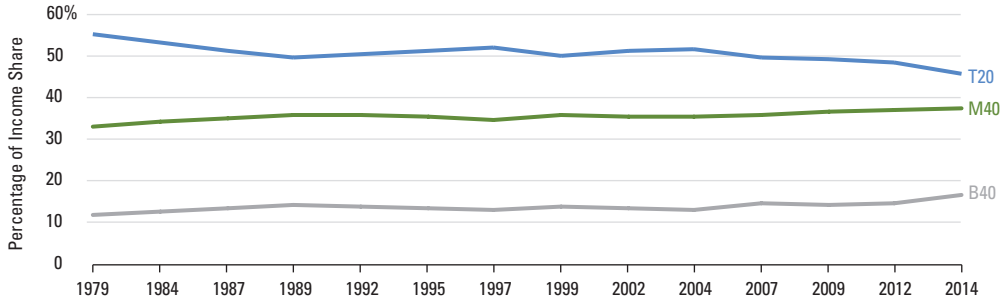
Gross income class	Percentage of households 2012	2014
RM999 and below	*22.6* 5.0%	11.7
1,000 – 1,999	17.6	
2,000 – 2,999	15.9	12.6
3,000 – 3,999	16.7	17.8
4,000 – 4,999	11.1	12.8
5,000 – 5,999	7.8	10.1
6,000 – 6,999	6.0	7.4
7,000 – 7,999	4.5	6.0
8,000 – 8,999	5.7	*7.9* 4.5
9,000 – 9,999		3.4
10,000 – 10,999	9.7	*13.7* 2.4
11,000 – 11,999		2.0
12,000 – 12,999		1.6
13,000 – 13,999		1.2
14,000 – 14,999		1.1
15,000 and above		5.4

Source: DOS (2015e) and DOS (2013a)

The relatively higher rate of income growth for poorer households compared to other income groups resulted in the reduction in inequality. The incomes of the B40 and M40 households have grown faster than those for the T20 households (see Chart 3). As a result, the income share of the T20 has fallen, while those of the B40 and the M40 have risen (Chart 21). The income share of the B40 increased from 14.8% to 16.8% during the period of 2012 to 2014, while for the M40, it increased marginally from 36.6% to 36.9% during the same period. In contrast, the income share for the T20 decreased from 48.6% in 2012 to 46.6% in 2014.

Household income gaps are closing

Chart 21: Share of total income of the T20, M40, and B40, 1979 – 2014



Notes:
1. Starting 1989, data is based on Malaysian citizens only.
2. The years featured in the chart are those with published data.
Source: DOS (2015e)

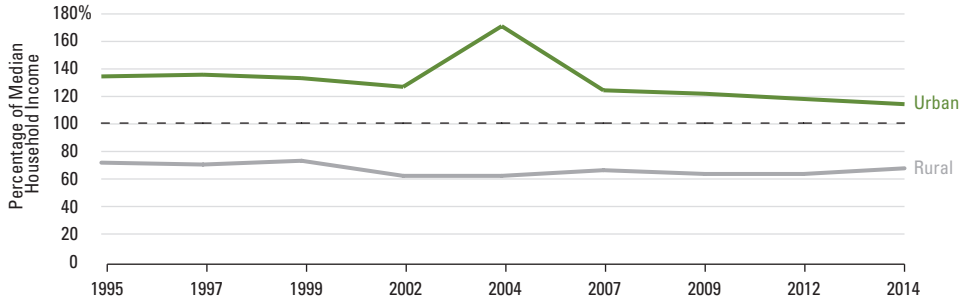
The Gini coefficient, a commonly-used measure for inequality, dropped by 3.0 percentage points during 2012 – 2014, ie from 0.431 to 0.401. In fact, the level of household inequality in Malaysia in 2014 is the lowest in the past four decades (Chart 23). Appendix 1 briefly explains the Gini coefficient as a measurement for inequality.

… between urban and rural households

The income gap between urban and rural households has also narrowed (Chart 22). The average monthly household income for rural households increased from RM3,080 in 2012 to RM3,831 in 2014, which translates to a 10.9% growth, compared to a 8.7% growth for urban households, where their monthly household income expanded from RM5,742 to RM6,833. This translates to a reduction in the gap between urban and rural household incomes, from 1.9 times in 2012 to 1.8 times in 2014.

The income gap between urban and rural households has narrowed

Chart 22: Urban-rural gap across time, 1995 – 2014

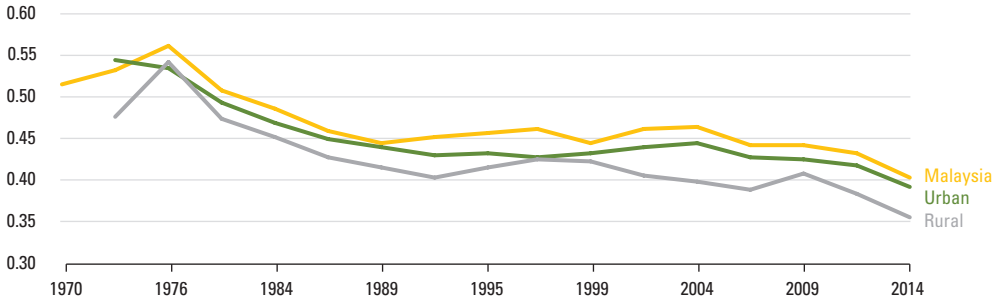


Note: The years featured in the chart are those with published data.
Source: DOS (2015e)

The Gini coefficient for urban and rural households also dropped (Chart 23). The Gini coefficient contracted from 0.417 in 2012 to 0.391 in 2014 among urban households, or equivalent to a 2.6 percentage point drop in two years, and for rural households, it fell by 2.7 percentage points to 0.355 in 2014.

Gini coefficients have dropped at the national, urban, and rural levels

Chart 23: Gini coefficients by strata, 1970 – 2014



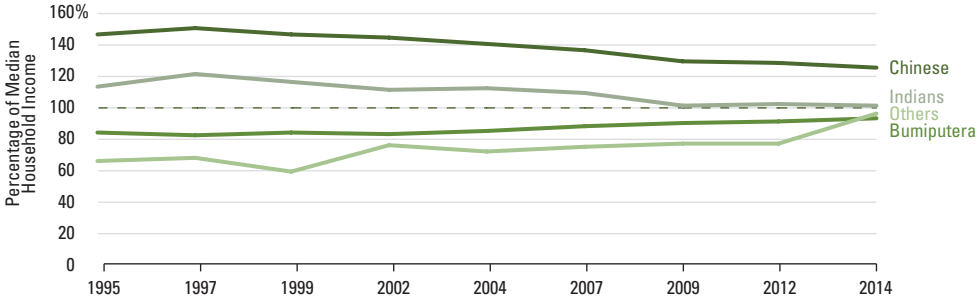
Note: The years featured in the chart are those with published data.
Source: DOS (2015e)

… between households of different ethnicities

Household income gaps between ethnic groups displayed similar trends (Chart 24). Income gaps between households of different ethnic groups have narrowed and the median household income for all ethnic groups are converging to the median household income for an average Malaysian household over time.

Household income gaps between different ethnicities have narrowed

Chart 24: Income gap by ethnicity, 1995 – 2014

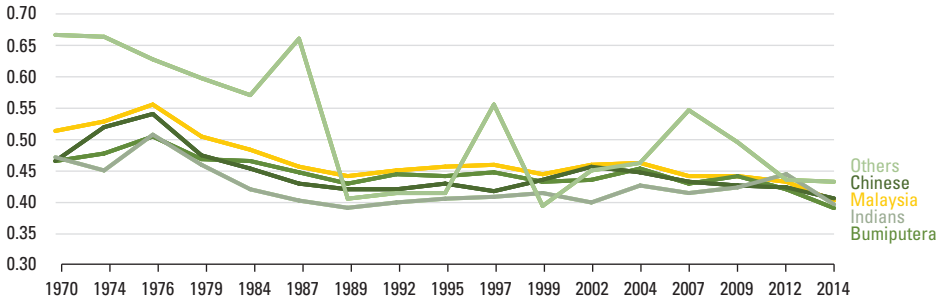


Note: The years featured in the chart are those with published data.
Source: DOS (2015e)

All ethnic groups experienced a reduction of the Gini coefficient during 2012 to 2014 (Chart 25). However, the margin varies, with Indians experiencing a greater reduction in income inequality than the Bumiputera and the Chinese. The Gini coefficient among the Indians dropped from 0.443 to 0.396 between 2012 and 2014, or 4.7 percentage points during the period. Meanwhile, the Bumiputera and the Chinese registered reductions of 3.2 and 1.7 percentage points, respectively. The ethnic group with the highest Gini coefficient in 2014 was the Chinese, followed by the Indians, and then the Bumiputera. This is in contrast to 2012, when the Indians had the highest Gini coefficient.

The Gini continued to shrink for all ethnic groups

Chart 25: Gini coefficients by ethnicity, 1970 – 2014



Note: The years featured in the chart are those with published data.
Source: DOS (2015e)

Between 2012 and 2014, some income disparities still remain

Within and between states

Table 4 presents income inequality by state, which shows that apart from Kuala Lumpur, the Gini coefficients for all states were much lower than the national figure. Almost all states experienced a reduction in inequality between 2012 and 2014, except Pahang and Putrajaya. The biggest reduction occurred in Perlis, where the Gini coefficient had reduced by 10.9 percentage points. Perlis went from being the most unequal state in 2012 to the third most equal state two years later[8]. On the other hand, inequality worsened in Putrajaya by 6.9 percentage points. Kuala Lumpur, which was ranked the second most unequal state in 2012, claimed top spot in 2014.

[8] Latest available figures. Source: DOS (2015e)

Table 4: Gini coefficient by state, 2012 – 2014

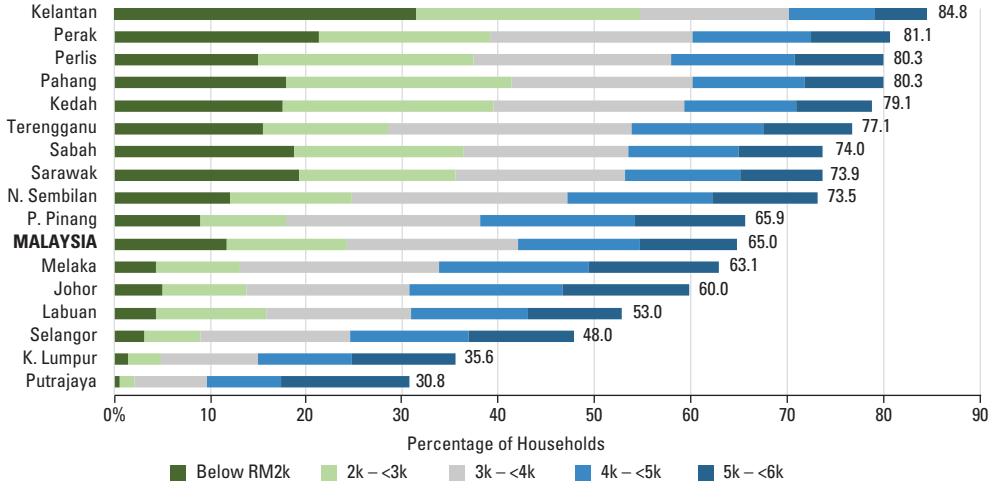
State	2012	2014
Melaka	0.355	0.316
Johor	0.383	0.324
Perlis	0.455	0.346
Pahang	0.354	0.360
Terengganu	0.426	0.360
N. Sembilan	0.382	0.361
P. Pinang	0.370	0.364
Kedah	0.391	0.365
Perak	0.417	0.366
Putrajaya	0.305	0.374
Selangor	0.396	0.379
Labuan	0.383	0.385
Sabah	0.427	0.387
Sarawak	0.440	0.391
Kelantan	0.410	0.393
MALAYSIA	0.431	0.401
K. Lumpur	0.442	0.407

Source: DOS (2015e)

Although average and median household incomes have improved across all states, there are significant differences in the income distribution of households across income classes between all states and Federal Territories. Chart 26 and Chart 27 show that 84.8% of Kelantan households earn less than RM6,000 a month (the national household average income is RM6,141), whereas 69.2% of households in Putrajaya earn RM6,000 or more. In Kelantan, Sabah, and Sarawak, the largest income class consists of households which earn below RM2,000 (the lowest income bracket in the 2014 HIS), which stands in contrast to Kuala Lumpur and Putrajaya, where the largest income class is households earning more than RM15,000 a month, the highest income bracket in the Survey.

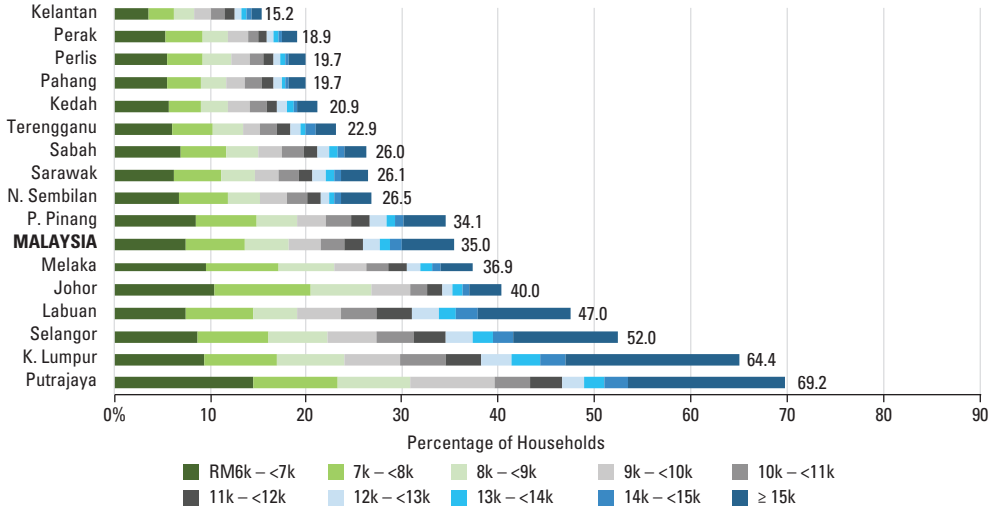
Rich states, poor states

Chart 26: Percentage of households earning less than RM6,000 per month by income class, 2014



Source: DOS (2015b)

Chart 27: Percentage of households earning more than RM6,000 per month by income class, 2014

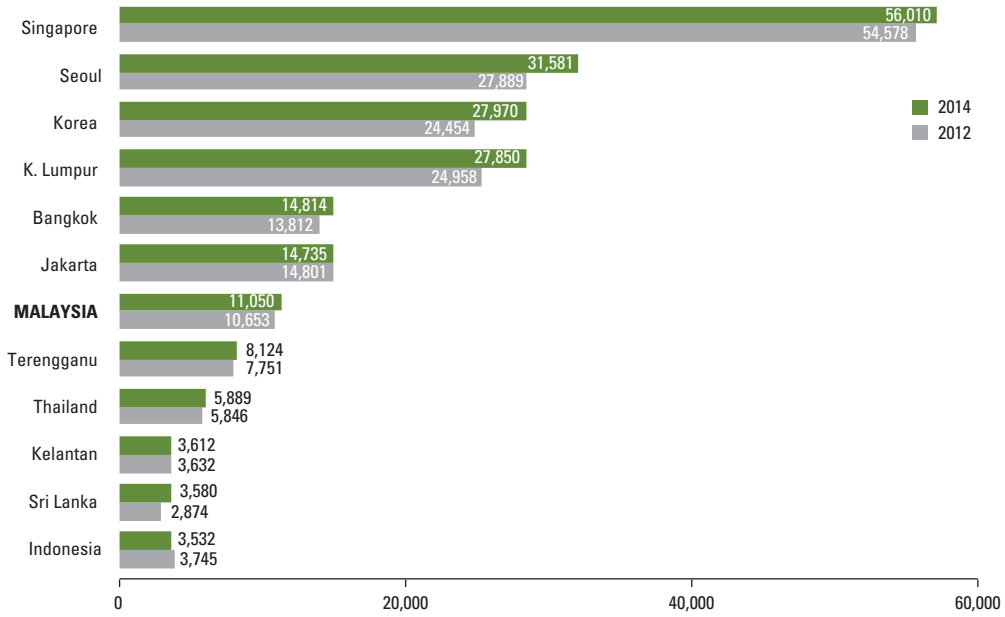


Note: RM6,000 is chosen as the cut-off point as the average household income in 2014 was RM6,141.
Source: DOS (2015b)

The disparities in household incomes between states also reflect wide variations in GDP per person. Kuala Lumpur has a GDP per person approaching that of Korea's, whereas Kelantan's GDP per person is closer to that of Indonesia's and Sri Lanka's. The gap between Kelantan and Kuala Lumpur also widened between 2012 and 2014 (Chart 28).

Wide variations in GDP per person between Malaysian states

Chart 28: Nominal GDP per person, 2012 and 2014 (USD)



Note: The exchange rates used are the annual average rates for 2012 and 2014.
Source: IMF (2016), KOSIS (n.d.), and CEIC (n.d.)

Between genders, ethnicities, and urban and rural households

Average and median incomes for households headed by men and women of all ethnicities expanded markedly between 2012 and 2014. Average income in households headed by men registered an increase of 9.6% during the period, compared to 14.7% for households headed by women. In both urban and rural areas, it is households headed by men that have the highest incomes (Chart 29). In general, average income rises as the head of household gets older, and then falls in retirement. On the other hand, median household income peaks much earlier, for households headed by those in their late 30s (Chart 30).

Some households are more equal than others

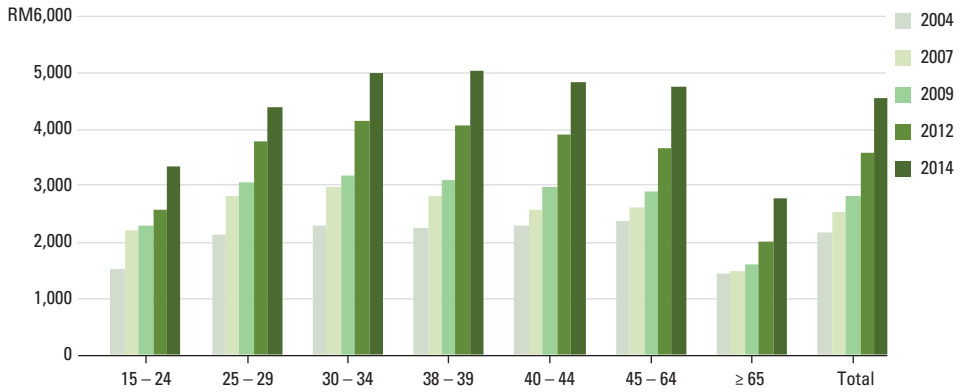
Chart 29: Average household size and household income, by ethnicity, strata, and gender, 2012 and 2014

2012					2014				
Median	Average household income				Average household income			Average household size	Median
	Female	Male	Malaysia	Ethnicity	Malaysia	Male	Female		
3,626	3,671	5,248	5,000	National	6,141	6,355	4,923	4.3	4,585
3,282	3,404	4,654	4,457	Bumi	5,548	5,717	4,580	4.5	4,214
4,643	4,508	6,700	6,366	Chinese	7,666	7,988	5,821	3.7	5,708
3,676	3,304	5,624	5,233	Indian	6,246	6,511	4,919	4.2	4,627
2,762	4,097	3,786	3,843	Others	6,011	6,236	5,125	4.4	4,372
				Urban					
	4,239	6,010	5,742	National	6,833	7,071	5,478		
	4,129	5,502	5,301	Bumi	6,340	6,520	5,275		
	4,646	6,985	6,622	Chinese	7,933	8,275	6,006		
	3,840	5,885	5,491	Indian	6,455	6,732	5,073		
	5,674	5,230	5,323	Others	7,195	7,316	6,663		
				Rural					
	2,387	3,225	3,080	National	3,831	3,961	3,109		
	2,368	3,148	3,010	Bumi	3,787	3,908	3,130		
	2,795	3,951	3,806	Chinese	4,389	4,581	2,991		
	2,224	3,539	3,271	Indian	3,674	3,818	2,906		
	2,149	2,487	2,432	Others	3,204	3,473	2,377		

Source: DOS (2015e) and DOS (2013a)

Before retirement age, older households are richer

Chart 30: Household median income, by age of head of household (RM)



Source: DOS (2015b)

Incomes for households of different ethnicities also grew at very different rates. The median incomes for Bumiputera, Chinese, and Indian households grew at a CAGR of 12.2%, 13.3%, and 10.9%, respectively. While this has narrowed the inter-ethnic income gap for households, as Chart 29 shows Chinese households (which are the richest) still out-earn Bumiputera households (the poorest) by 35.5% at the median. In 2012, the poorest households were in the 'others' ethnic category, whose median income was 68.1% lower than the richest households (the Chinese).

Across all ethnicities however, urban incomes far outstrip rural incomes, with the biggest gap being among those for Chinese households (Table 5), where the gap between urban and rural household incomes grew from 1.74 in 2012 to 1.81 in 2014.

Despite income gaps narrowing, households in cities are still richer than those in villages

Table 5: Average urban household incomes as a multiple of average rural household incomes, 2012 and 2014

	2012	2014
MALAYSIA	**1.86**	**1.78**
Bumiputera	1.76	1.67
Chinese	1.74	1.81
Indian	1.68	1.76

Source: DOS (2015e) and DOS (2013a)

Wealth inequalities persist and remain high

Sources of household wealth may include property holdings and financial assets such as savings, equities, and unit trusts. However, we do not have the same granularity of data for wealth as we do for income. As such, we examine two proxies for household wealth—savings in the Employees Provident Fund (EPF) and investment in *Amanah Saham Bumiputera* (ASB)—which indicate that inequality in wealth is much higher than inequality in household income. In 2014, the Gini coefficient for EPF in 2014 was 0.658, and 0.836 for ASB, much higher than for household income, at 0.401 (Chart 31).

Wealth inequalities far exceed income inequality

Chart 31: Gini coefficients, 2014

Source: EPF (2015), ASNB (2015), DOS (2015e), and KRI calculations

While still high, these figures marginally improved between 2012 and 2014. During this period, the EPF Gini coefficient dropped from 0.662 to 0.658. EPF figures also indicate that the distribution of wages had improved slightly for private sector workers[9]. As at December 2015:

- 91% of active EPF members earned less than RM6,000 a month (2013: 96%);
- 83% earned less than RM4,000 (2014: 85%); and
- 58% earned less than RM2,000 (2013: 62%).

Many members are not meeting their basic savings requirements due to the fact that they earn little. About three out of four EPF members (76%) earn less than RM3,000 per month, and nearly 90% earn less than RM5,000 per month[10]. This is consistent with data from the Salaries and Wages Survey Report published by DOS[11], which stated that the median wage in Malaysia in 2015 was RM1,600. In other words, half of Malaysian workers earned less than this amount per month.

9 EPF (2016)
10 Ibid.
11 DOS (2016d)

Inequality in financial assets also remained high between 2012 and 2014. Although there is no aggregate data on financial assets, data from government-linked ASB, which is currently the largest unit trust fund in Malaysia, can be used as a proxy for calculating the level of inequality in financial assets. Its units in circulation is equivalent to about 31% of total unit trusts in circulation in 2014 and accounted for about 40% of the total number of units for the entire industry in Malaysia.

Although the average investment in ASB increased from RM14,096 in 2012 to RM15,928 in 2014, the distribution remains skewed. In 2012, the bottom 73.7% of unit-holders of ASB had an average savings of RM611 in their accounts. By 2014, the average savings for the bottom 71.5% of unit-holders had fallen to RM536. Meanwhile, the average savings for the top 0.2% of unit-holders grew by RM52,591 from RM692,087 to RM745,038 during the same period. Again, it should be noted that since the maximum that ASB unit-holders can invest is RM200,000, the high account balances of the wealthy are from many years of accrued dividends. The Gini coefficient for ASB holdings in 2014 was 0.836, remaining unchanged from 2012[12].

In 2014, the savings of the bottom 71.5% constituted a meagre 2.4% of total savings, while the savings of the top 0.2% was 3.7 times more than this figure at 8.8%[13]. In 2012, the savings of the bottom 73.7% consisted of 3.2% of total savings compared to the top 0.2% whose savings was equal to 7.7% of the entire savings[14].

However, the deterioration in the distribution of savings is not just limited to Bumiputeras. As at February 2016, the savings of the top 20,867 (0.3%) members of the EPF are greater than the total savings of the entire bottom 47%, which comprises 3,117,610 members.

12 Lee and Muhammed (2014) and Muhammed (2016)
13 ASNB (2015)
14 ASNB (2013)

In 2014, active EPF members in the 51 – 55 age group, who are on the brink of retirement and would have their careers' worth of savings, had on average RM159,952 each (Table 6). But this is distorted by the richest 1.6%, or 6,413 members, who have an average of RM1.6m in savings (2012: RM1.4m). If these members are excluded, then the average savings for this age group would be RM137,605 (2012: RM118,538). However, the bottom 13.5% has average savings of only RM5,621 (2012: RM3,787) and the next 6.5%, an average of RM9,585 (2012: RM7,384). In other words, about one in five members nearing retirement has less than RM10,000 in savings.

One in five EPF members nearing retirement has less than RM10,000 in retirement funds

Table 6: Savings of EPF members in 51 – 55 age group, 2014

	Average savings
Bottom 13.5%	RM5,621
Next 6.5%	9,585
Top 1.6%	1,600,000

Source: EPF (2016)

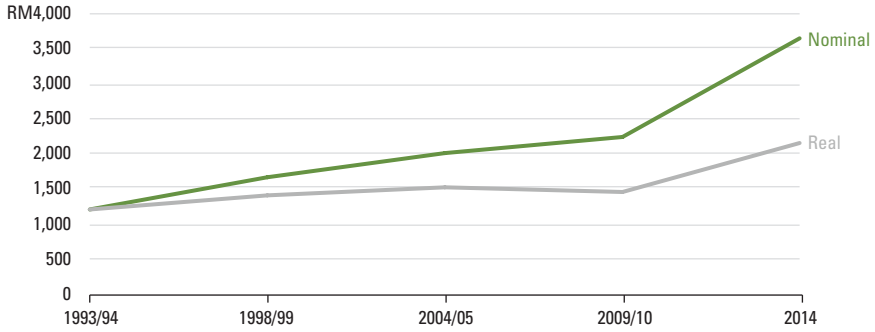
SECTION 1

HOUSEHOLD EXPENSES

Save for a slight contraction in real terms in 2009/2010, like income, average household spending has also grown steadily in both nominal and real terms (Chart 32 and Table 7).

Household spending continues to rise

Chart 32: Average household spending, real and nominal terms (RM)



Source: DOS (2015f)

Table 7: Growth in household spending (CAGR), 1998/99 – 2014 (percentage)

	1998/99	2004/05	2009/10	2014
Nominal	7.0%	3.0	2.3	10.3
Real	3.3	1.3	-0.5	8.0

Source: DOS (2015f)

For the first time, the 2014 HIS and HES were conducted simultaneously, with 50,000 living quarters interviewed for both surveys. This means that household spending patterns can now be compared across income, and not just expenditure, brackets. As we highlighted in the first *State of Households* report, spending is unequal across expenditure brackets, which also dovetails with expenditure disparities across income brackets (Chart 33 and Chart 34).

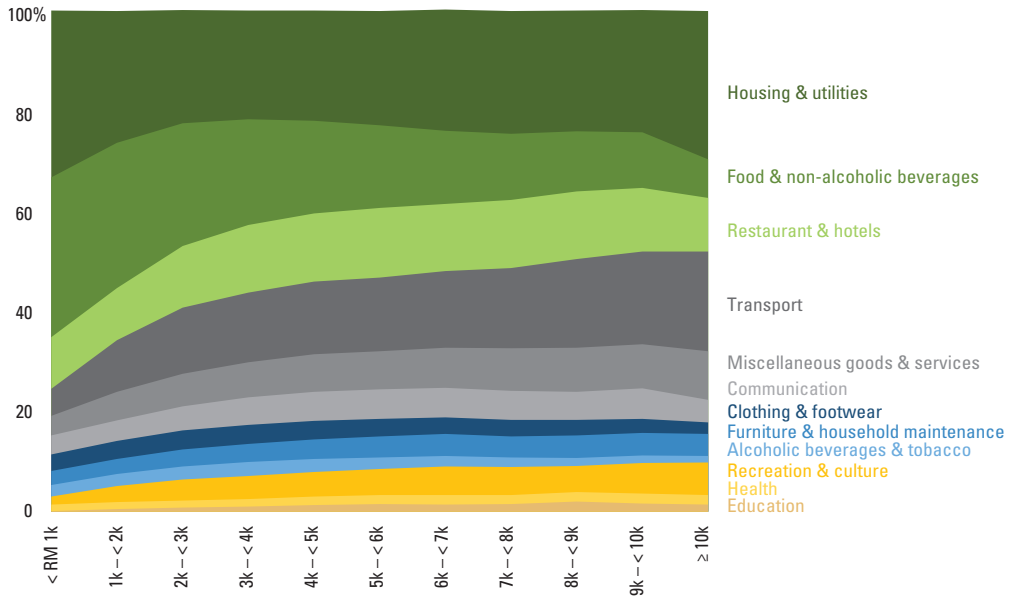
Households in the highest income bracket dedicate the largest share of their average monthly expenditure (28.4%) to housing and utilities, while households in the lowest income bracket spend the most (30.4%) on food and non-alcoholic beverages.

The richest households spend on average RM2,836 per month on housing and utilities. Compared to households in other income brackets, they also allocate the smallest portion of their monthly expenditure on food and non-alcoholic beverages at 9.9% (RM992 per month).

On the other hand, the poorest households spend RM403 per month on food and non-alcoholic beverages. Their next largest expenditure is on housing and utilities at RM368 per month (27.8% of total expenditure).

Spending is unequal across expenditure …

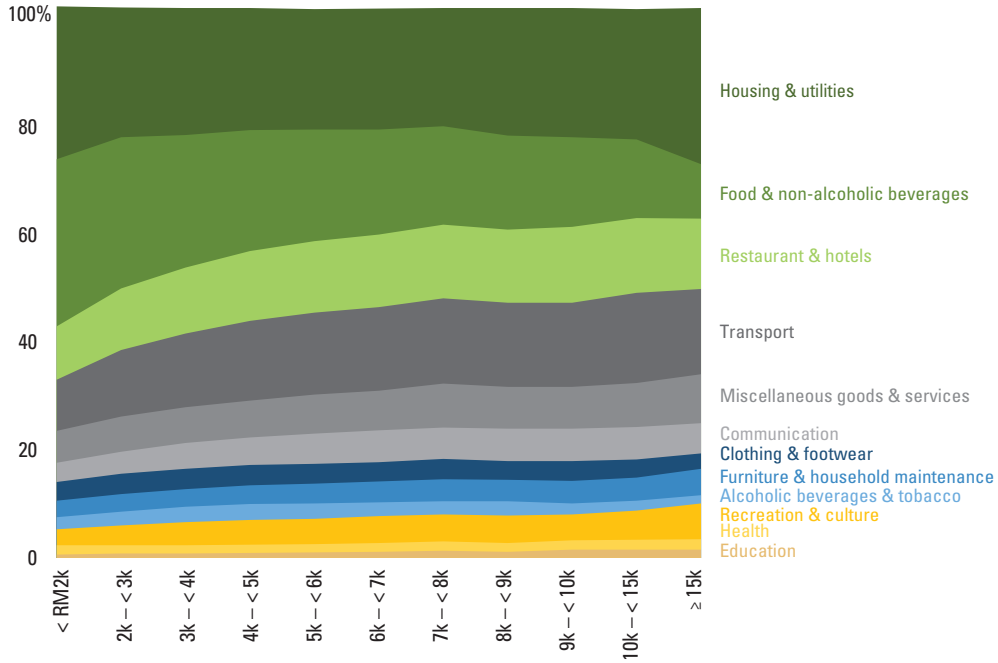
Chart 33: Percentage monthly spend on goods and services, by expenditure category, 2014



Source: DOS (2015f)

… and income brackets

Chart 34: Percentage monthly spend on goods and services, by income category, 2014



Source: DOS (2015f)

Generally, households dedicate the largest proportion of expenditure on three categories: housing and utilities, transportation, and food (consumed at home and outside). However, household spending on the first two categories may be under-reported in the HES as the Survey does not report on capital and/or interest payments, including those on housing and car loans. Instead, the "housing and utilities" component includes items such as actual rent, imputed rent (see Box 2), and maintenance and repair costs for housing as well as payments for electricity and pipe water.

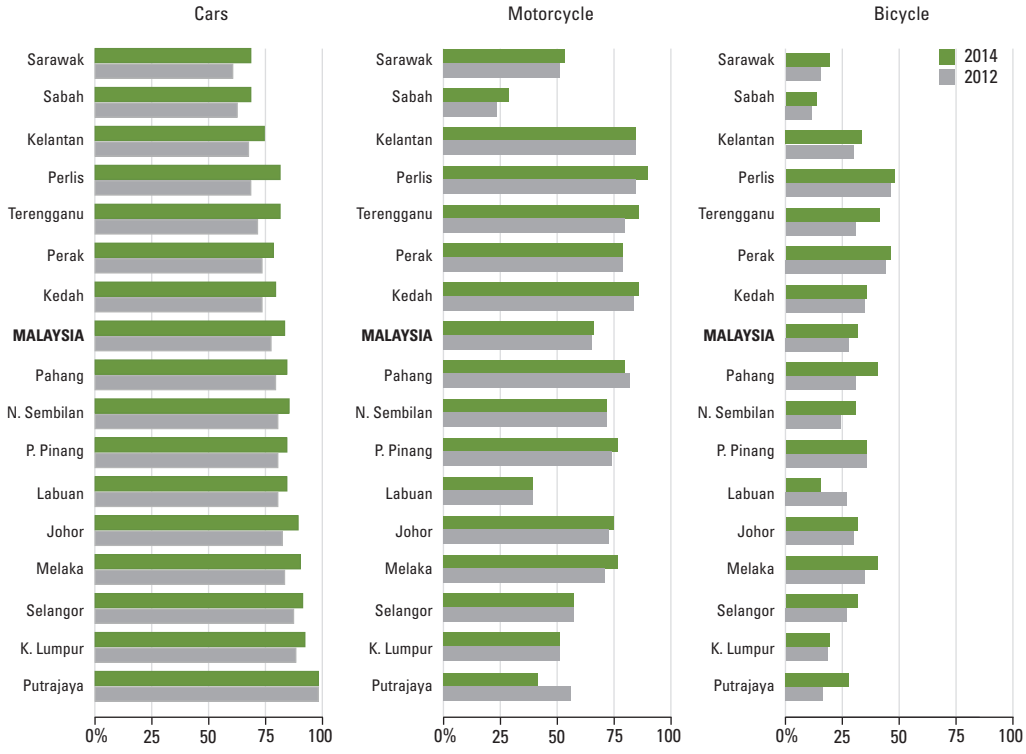
Meanwhile, household transportation expenditure as reported in the Survey refers to spending on fuel (the largest expenditure sub-category for transport), vehicle maintenance, and passenger transport fares, but excludes capital or interest instalment payments on motor vehicles.

Consumerism remains high

In tandem with improvements in household incomes, vehicle ownership across all types increased, with the percentage of Malaysian households owning cars jumping from 77.8% to 83.9% between 2012 and 2014. Motorcycle and bicycle ownership rose by one and four percentage points, respectively (Chart 35).

More households own vehicles in 2014 compared to 2012

Chart 35: Ownership of vehicles, by state, 2012 and 2014 (percentage)

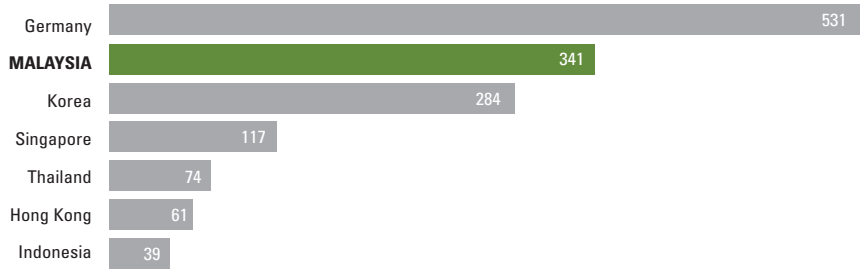


Source: DOS (2015e) and DOS (2013a)

Malaysia has one of the highest motorisation rates in the world (Chart 36) as well as increasing ownership of luxury cars. The amount of luxury cars sold in Malaysia increased from 28,831 in 2013[15] to 30,939 in 2015 (Table 8).

Malaysian car ownership outstrips most of its regional neighbours'

Chart 36: Passenger cars per 1,000 people, 2011



Source: CEIC (n.d.)

Table 8: Number of luxury cars sold in 2015 by official distributors, 2015

Marque	Quantity
Mercedes	10,859
BMW	7,515
Volkswagen	6,405
Lexus	2,101
Audi	1,592
Mini	756
Volvo	619
Porsche	567
Land Rover	525
Total	**30,939**

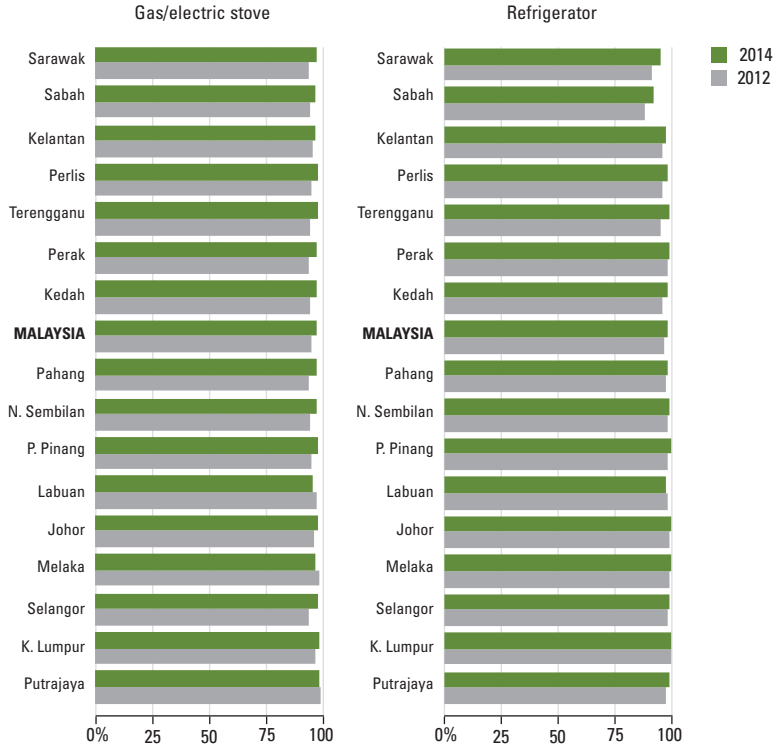
Note: Volvo was added to the original list published in the first *State of Households* following suggestions from stakeholders. KRI does not have a definition of a luxury car. Marques such as Bentley, Ferrari, Lamborghini, and Rolls-Royce were not added due to unavailability of data as the marques do not have official distributors in Malaysia.
Source: MAA (2016)

15 MAA (2014)

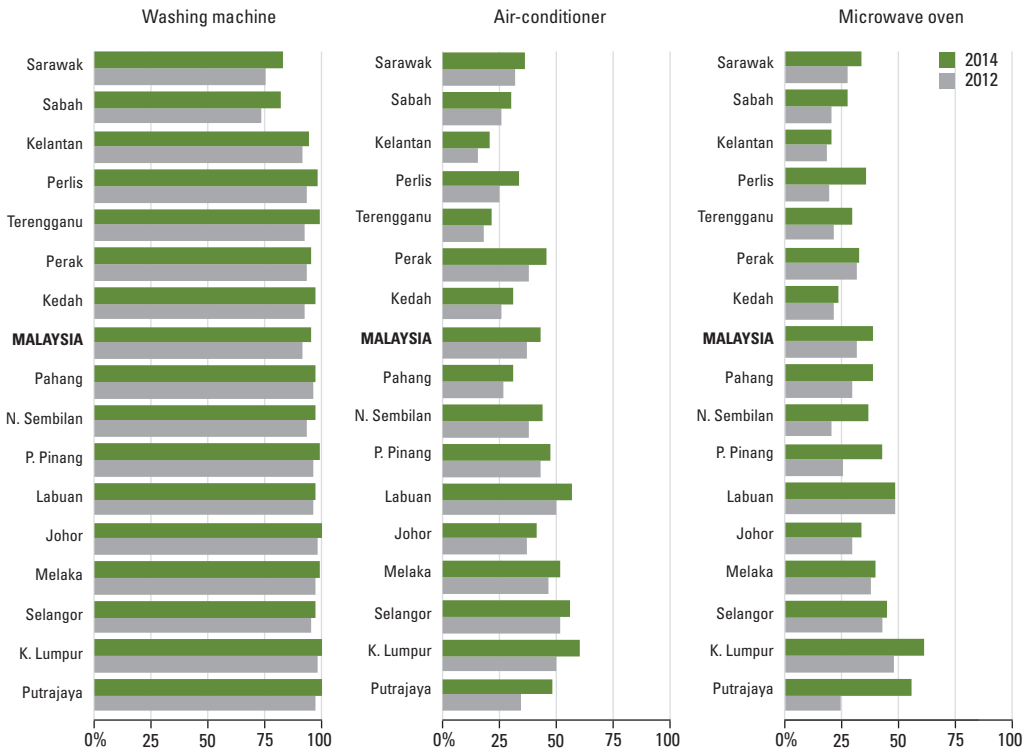
In addition, almost all households own electrical appliances (Chart 37), as well as televisions and mobile phones (Chart 38).

Modern conveniences

Chart 37: Ownership of electrical appliances, by states, 2012 and 2014 (percentage)

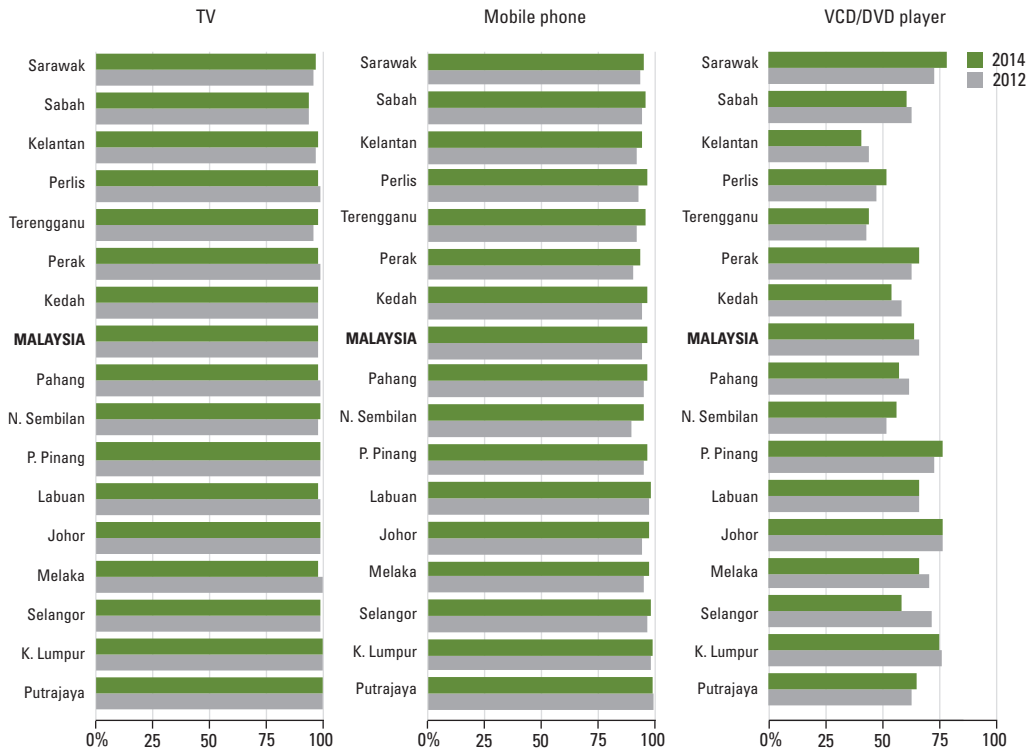


Source: DOS (2015e) and DOS (2013a)



Source: DOS (2015e) and DOS (2013a)

Chart 38: Ownership of TVs, mobile phones, and VCD/DVD players, by state, 2012 and 2014



Source: DOS (2015e) and DOS (2013a)

SECTION 1

HOUSEHOLDS AND FOOD

Food is a major expenditure item for most households and rising food prices (which have increased faster than the overall inflation) are therefore of concern. In 2014, 94.6% of all households spent more on food than on any other expenditure items. Among these households, those who earned less than RM2,000 per month spent 38.5% of their monthly expenditure on food[16]. The increase in the cost of food, therefore, has a large effect on the cost of living for these households.

Can Malaysians afford nutritious food?

The answer, for many with low incomes, appears to be no.

The Malaysian Dietary Guidelines (MDG) issued by the Ministry of Health (MOH) set out the recommended daily servings of different types of food that would make a nutritious meal. For a household of five[17], we estimate that the minimum daily cost for a nutritionally adequate diet is between RM25.21 and RM38.45 in the seven cities shown in Table 9. This is just for the cost of food and assumes that all household members will eat home-cooked food for breakfast, lunch, and dinner. It does not take into account other costs associated with cooking at home, such as the costs of transportation to buy the food, electricity, and cooking gas. It also does not take into account the costs of setting up a kitchen, such as the costs of a refrigerator, a stove, a rice cooker, and utensils.

16 DOS (2015f)

17 Consisting of an adult male (30 – 50 years old), an adult female (30 – 50 years old), a male child (7 – 9 years old), a female child (4 – 6 years old), and another child (1 – 3 years old).

18 For the purposes of this report, a nutritionally adequate diet is made up of food items based on the MDG.

It is cheaper to feed a family in Kota Bharu than in Kuching

Table 9: Minimum daily expenditure for a food basket to meet the MDG

City	Derived daily expenditure per household	Derived daily expenditure per person
Kota Bharu	RM25.21	5.04
Alor Setar	26.17	5.23
Johor Bahru	27.76	5.55
Kuala Lumpur	28.43	5.69
Kuala Terengganu	29.38	5.88
Kota Kinabalu	33.06	6.61
Kuching	38.45	7.69

Notes:
1. The basket consists of rice, bread, eggs, chicken, dhal, papayas, *kangkung, ikan kembung*, powdered milk, cooking oil, and onions. See Appendix 2 for further details.
2. Prices as at 30 March 2016.
3. Derived daily expenditure per person is calculated by dividing the derived daily expenditure per household by five.

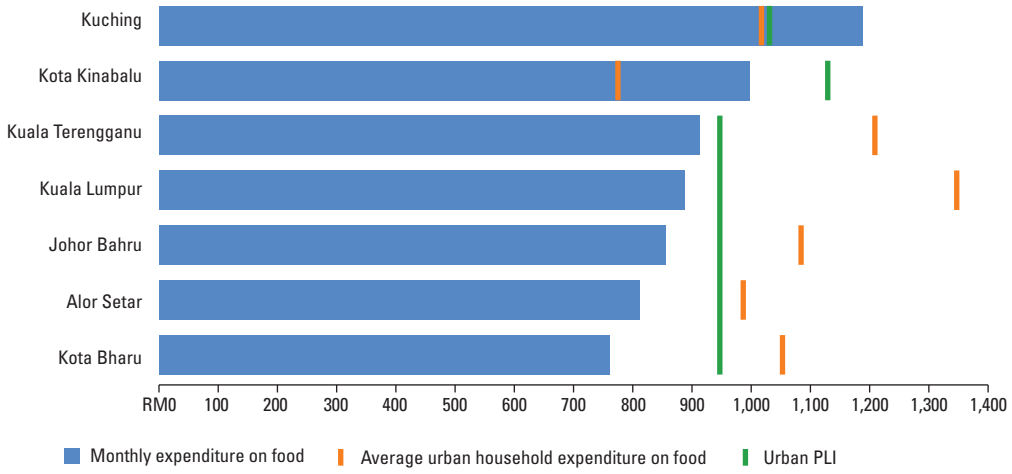
Source: KRI calculations

In 2014, national median household expenditure was RM2,946 a month; a nutritious diet would therefore range between 25.7% and 39.2% of median monthly household expenditure.

But most households spent far less than this on food at home. On average, urban households actually spent only 16.4% of their monthly expenditure on food at home. Rural households spent 24.8% and the average was 17.7% for the country as a whole[19]. Households with an income of RM4,000 to RM4,999 (Malaysia's median monthly household income was RM4,585) spent only RM632 on food at home monthly[20].

A nutritious diet takes up almost all the income of a family with PLI

Chart 39: Minimum monthly expenditure for a food basket that meets the MDG, 2014



Note: Food includes F&B (food at home and non-alcoholic beverages) and food away from home.
Source: DOS (2015f) and KRI calculations

19 DOS (2015f)
20 Ibid.

A nutritionally adequate diet is beyond the reach of many Malaysians, and unaffordable for households with incomes near the poverty line (Chart 39), particularly in urban areas and taking other living expenses into account. Indeed, a survey of food insecurity among low-income households carried out in 2000 in Kuala Lumpur found that 65.7% of households surveyed experienced some form of food insecurity[21].

This conclusion is also in line with the findings of the Food and Agriculture Organization of the United Nations (FAO), that there is not only inequality of food consumption, but also in the quality of diets among different socioeconomic classes in several countries, including Malaysia[22]. Various empirical studies cited found that better socioeconomic conditions are linked to better food consumption with low calorie-density and more diverse nutrient content. On the other hand, the diets of poorer households were more "energy-dense" (containing more calories per unit weight of food) but "nutrient-poor", as energy-dense foods such as fats, grains, sugars, refined carbohydrates, and sugars are generally cheaper than other nutrient-rich foods including fruits and vegetables.

Food is getting more expensive

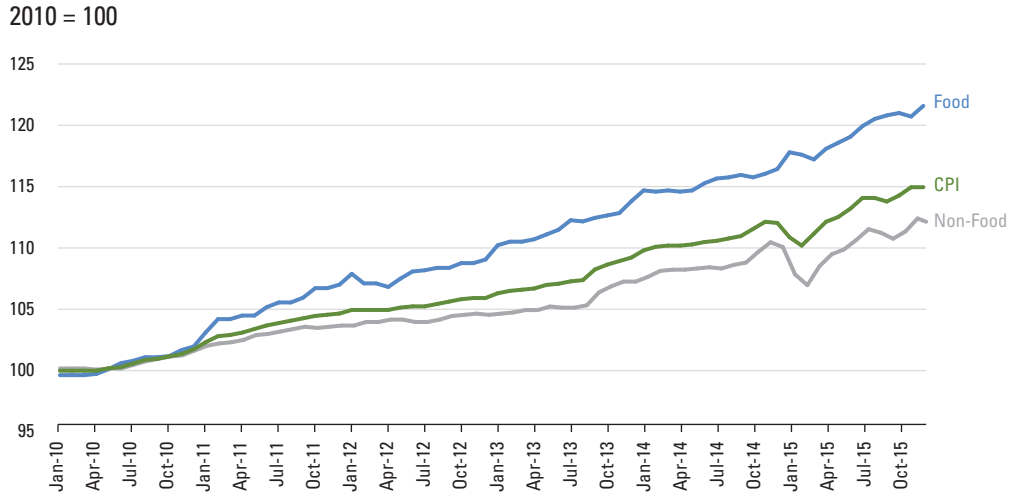
There are many complaints that food is getting more expensive[23]. Indeed, this perception is consistent with the Food and Non-Alcoholic Beverages (F&B) data. F&B is a component of the Consumer Price Index (CPI). The former has been rising faster than the latter, as shown in Chart 40.

Malaysia's food price inflation, measured as the year-on-year (YOY) change in the F&B Index, is higher than overall inflation, as seen in Chart 41. Between 2011 and 2015, food price inflation was 3.6% on average, whereas overall inflation was 2.4% over the same period.

21 Ang and Zalilah (2001)
22 Sundaram, Rawal, and Clark (2015)
23 A Jalil (2016)

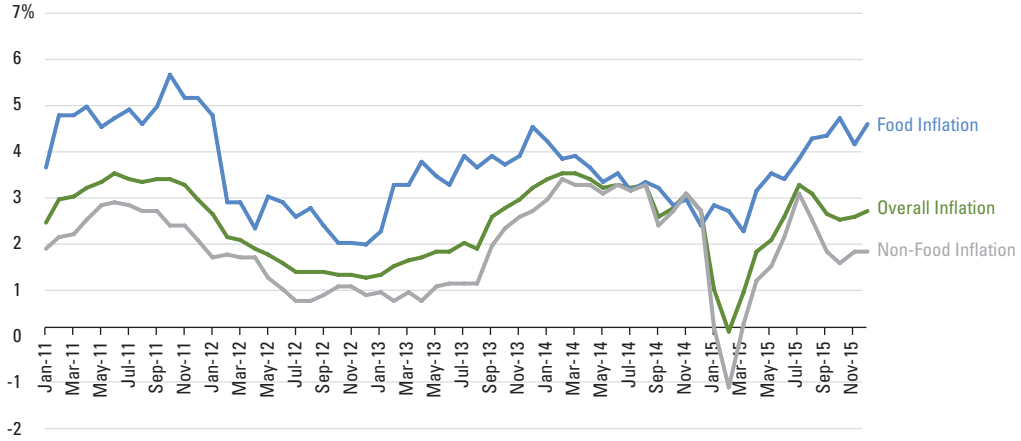
Food is getting more expensive

Chart 40: Index of monthly consumer price indices, 2010 – 2015



Source: CEIC (n.d.)

Chart 41: Monthly inflation for consumer price, food, and non-food inflation, 2011 – 2015



Source: CEIC (n.d.)

Food at home prices drive Malaysia's food price inflation

The F&B Index[24] can be broken down into three components, namely:

- Food at Home, which accounts for 18.9% of CPI and 62.3% of the F&B Index;
- Food Away from Home (10.0% of CPI, and 33.1% of the F&B Index); and
- Non-Alcoholic Beverages[25] (1.4% of CPI, and 4.5% of the F&B Index).

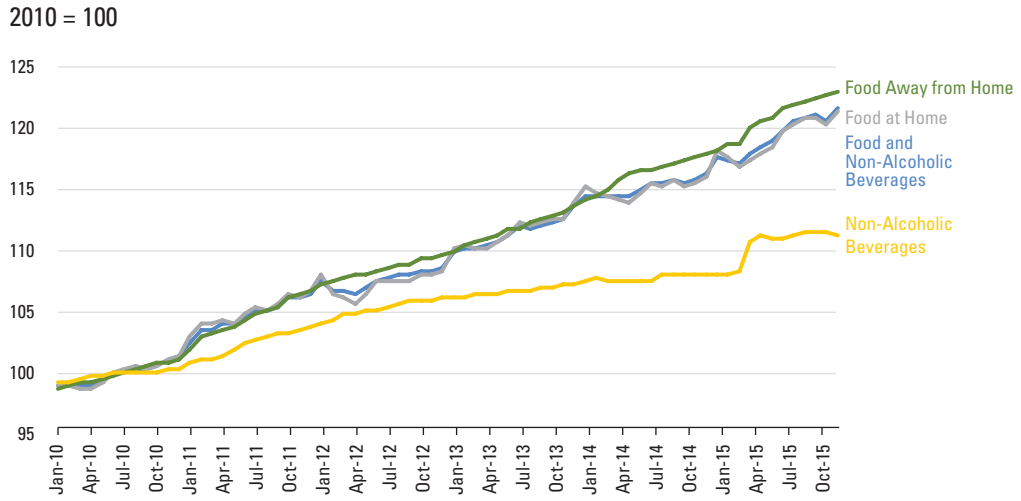
Chart 42 shows the F&B Index and the price indices of its three components. As the chart indicates, the Food at Home Index has been rising steadily over the past five years. Given that the Food at Home Index accounts for the largest of the three components of the F&B Index, the uptrend in food price inflation can largely be explained by the increase in food at home prices.

24 F&B accounts for 30.3% of the 2010 CPI basket, while the remaining 69.7% comprises non-food categories such as housing, clothing, transportation, and restaurants and hotels, among others. Within F&B, there are two major categories, namely food (28.9%) and non-alcoholic beverages (1.4%). Food, in turn, is split into two segments, which are Food at Home (18.9%) and Food Away from Home (10.0%). In this chapter, when we refer to expenditure on food, we mean expenditure on Food at Home, Food Away from Home, and Non-Alcoholic Beverages. In January 2016, the weightages of the CPI components were revised. Source: CEIC (n.d.)

25 Based on the 2010 CPI basket, Non-Alcoholic Beverages comprise coffee (with a weightage of 0.3% of the CPI); tea, cocoa, and others (0.5%); and mineral water, soft drinks and juices (0.6%). Collectively, Non-Alcoholic Beverages account for 1.4% of the CPI. As of January 2016, the weightages of the CPI components have been revised. Source: CEIC (n.d.)

Food at Home prices drive food inflation

Chart 42: Index of monthly price indices for F&B, Food at Home, Food Away from Home, and Non-Alcoholic Beverages, 2010 – 2015



Source: CEIC (n.d.)

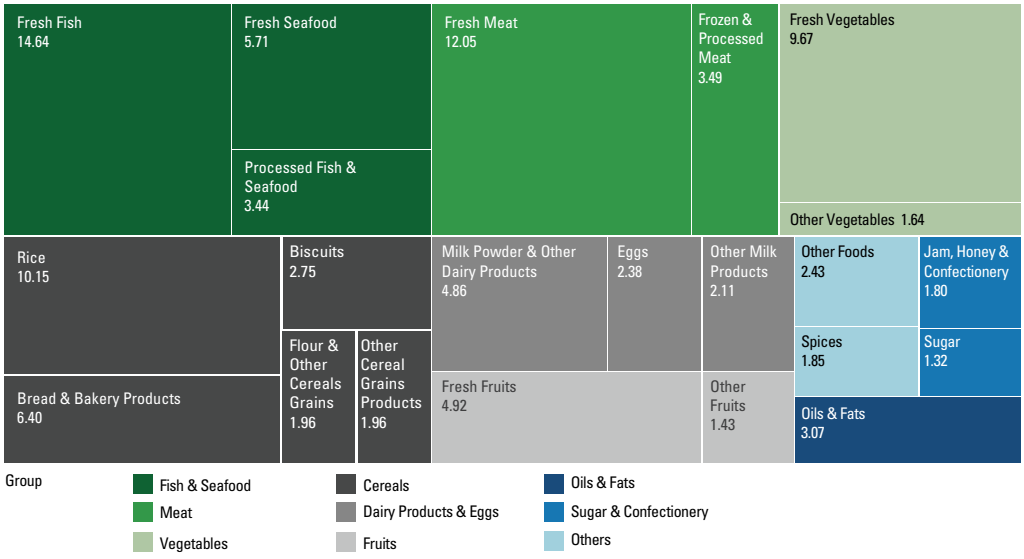
Which food items influence food at home prices?

Chart 43 considers the components of the Food at Home Index and their corresponding weights[26]. As can be seen from the chart, Fish and Seafood accounts for 23.8% of the Food at Home Index; Cereals, 23.2%; Meat, 15.5%; Vegetables, 11.3%; and Dairy Products and Eggs, 9.4%.

26 As of January 2016, the weightages of the CPI components have been revised. Source: CEIC (n.d.)

Fish and Seafood is the largest component of the Food at Home Index

Chart 43: Components of the Food at Home Index, 2015 (percentage)



Source: CEIC (n.d.)

As shown in Chart 44, the food groups that have undergone significant price increases between 2010 and 2015 are:

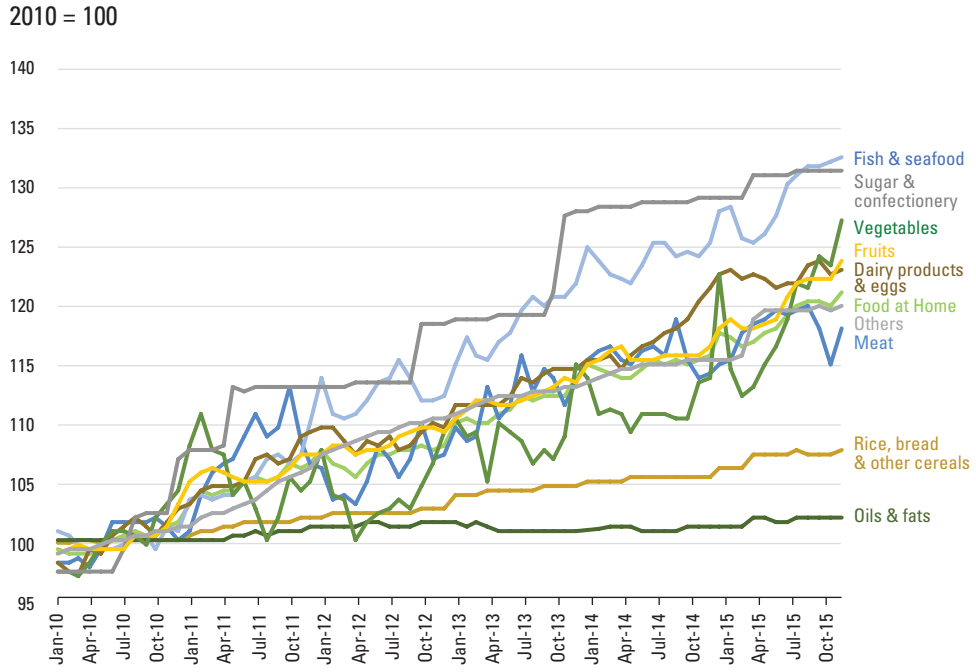
- Fish and Seafood, up by 30.9%;
- Dairy Products and Eggs, up by 23.0%; and
- Meat, up by 18.7%.

As these three food groups collectively account for more than 48% of the Food at Home Index, we can conclude that they have significantly contributed to the rise in the Index.

Another component of the Food at Home Index that has been rising sharply is Sugar and Confectionery. However, as this component only accounts for 1.3% of the Food at Home Index, it has not significantly contributed to the Food at Home Index's uptrend.

Prices for foods high in animal protein drive food at home inflation

Chart 44: Index of monthly prices for Food at Home and its components, 2010 – 2015



Source: CEIC (n.d.)

In addition, cereal prices have only risen moderately over the past five years and have not contributed significantly to higher Food at Home prices. It would seem that the major movers of Food at Home prices are Fish and Seafood, Meat, and Dairy Products and Eggs.

Seasonality and weather-related factors

Food prices are subject to seasonal and weather-related factors. For some food items such as local beef and mutton, seasonality does not appear to affect prices, as their prices keep rising regardless of season (Chart 45). However, the case is different for vegetables. For instance, the price of red chillies tends to surge before *Hari Raya* festivities, while price increases of mustard greens appear to coincide with Chinese New Year (Chart 46).

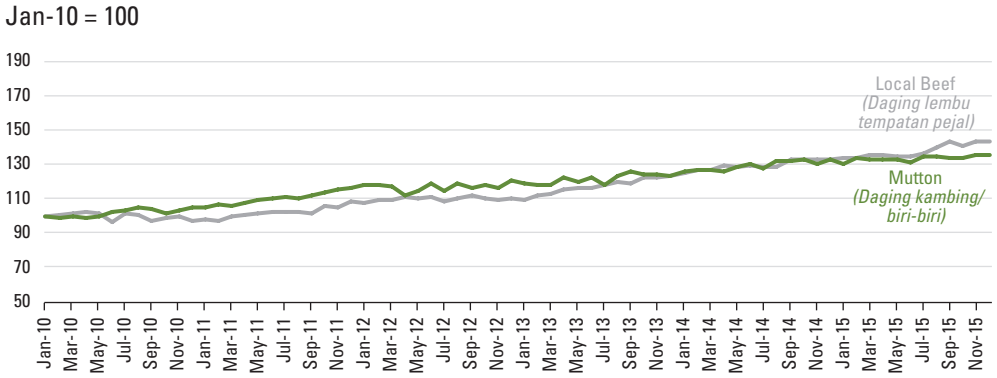
In other instances, weather-related conditions, such as the East Coast flood crisis in December 2014, contributed to higher retail prices for vegetables in early 2015[27]. Conversely, a bumper harvest in Cameron Highlands led to a tomato glut in March 2014, leading to a plunge in tomato prices[28].

[27] Other contributory factors were a labour shortage in Cameron Highlands and the government crackdown on illegal farming. Source: Guang Ming Daily (2015)

[28] The glut was caused by overplanting of tomatoes in Cameron Highlands after poor harvesting conditions in end-2013, due to unusually low rainfall, which then led to a spike in tomato prices. This spurred many farmers to switch to growing tomatoes. Source: Kong (2014)

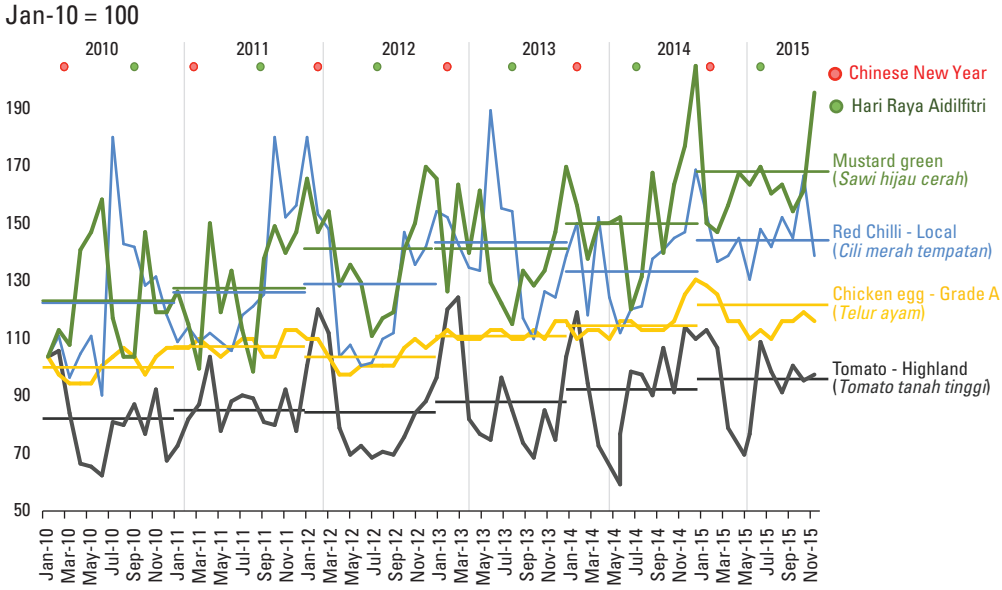
Seasonality affects vegetables, but not local beef and mutton prices

Chart 45: Index of monthly prices for local beef and mutton, 2010 – 2015



Note: Figures refer to prices collected for the first week of each month.
Source: FAMA (Various years)

Chart 46: Index of monthly prices for mustard green, red chilli, chicken egg, and tomato, 2010 – 2015.



Note: Figures refer to prices collected for the first week of each month. Horizontal lines represent average indices for the respective years.
Source: FAMA (Various years)

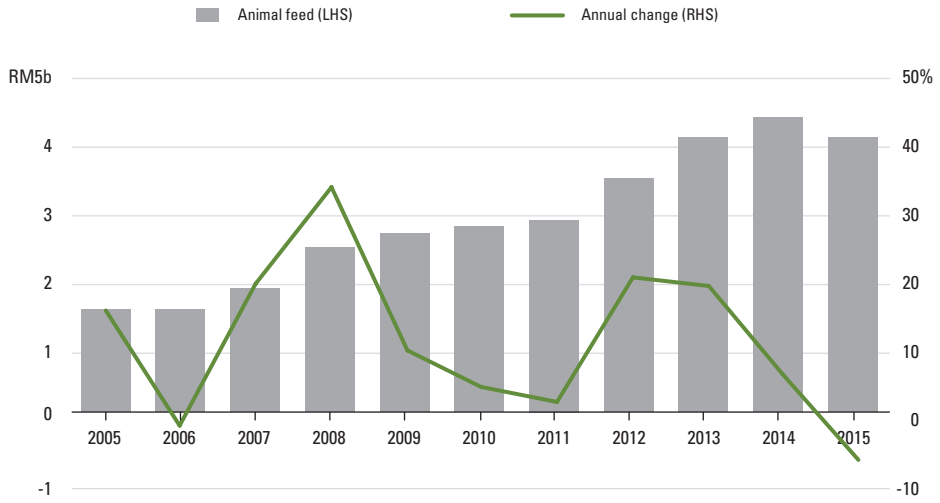
Malaysia imports a lot of food

Over the past 10 years, Malaysia's food import bill has risen significantly, with total imports of food and live animals increasing from RM17.8b in 2005 to RM45.4b in 2015[29] (Chart 48). This represents an average growth of 9.8% per annum. Malaysia also imports many types of production inputs such as animal feed, chemical pesticides, fertilisers, machines, and seeds.

Among the major food commodities, cereals and cereal preparations accounted for the largest percentage of imports of food and live animals, at 17.2% or RM7.8b in 2015. Of the total cereal imports, rice accounted for 22.0%, and maize (mainly used for animal feed) accounted for 38.5%. As Chart 47 indicates, Malaysia's imports of animal feed have climbed from RM1.5b in 2005 to RM4.0b in 2015.

Imports of animal feed have been growing, but at a decelerated rate

Chart 47: Animal feed imports, 2005 – 2015



Source: CEIC (n.d.) and KRI calculations

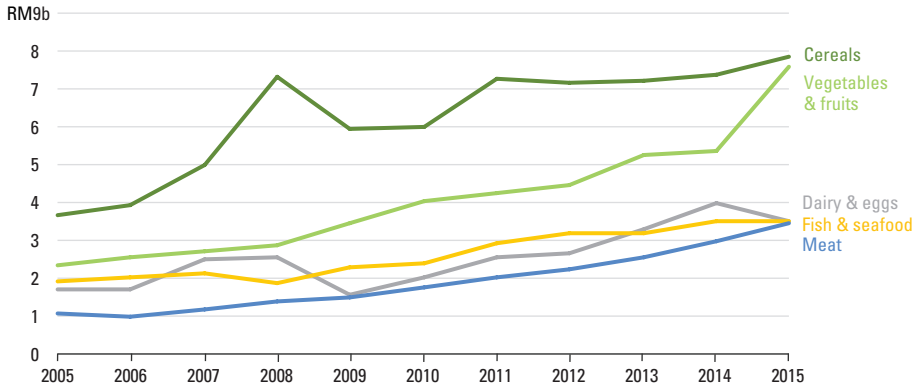
[29] CEIC (n.d.) and KRI calculations

Other significant food imports in 2015 were vegetables and fruits, valued at RM7.5b (or 16.5% of total food imports); dairy and eggs (RM3.5b, 7.7%); fish and seafood (RM3.5b, 7.7%); and meat (RM3.4b, 7.5%)[30] (Chart 49). In particular, Malaysia has been importing more meat products over the past decade.

Of the major food commodities, imports of meat and meat preparations saw the highest increase at 228.2% from RM1.1b in 2005 to RM3.4b in 2015. Over the same period, vegetables and fruits grew the second fastest, at 222.4%; followed by cereals and cereal preparations, 114.5%; dairy and eggs, 104.0%; and fish and seafood, 80.2%[31]. Chart 48 shows the trend for these food imports.

Cereals are the largest component of food imports; meat imports have grown the fastest

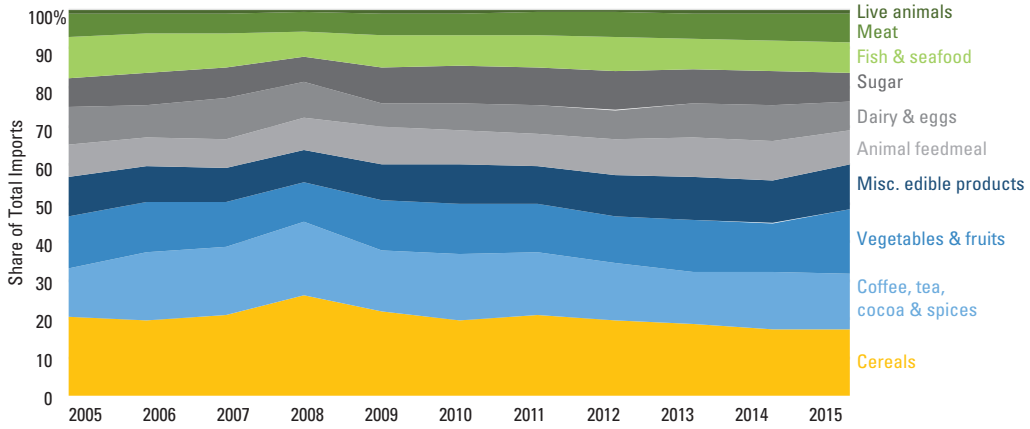
Chart 48: Food imports, by commodity, 2005 – 2015



Source: CEIC (n.d.) and KRI calculations

30 Ibid.
31 Ibid.

Chart 49: Percentage of food imports, by commodity, 2005 – 2015 (by value)



Source: CEIC (n.d.) and KRI calculations

Malaysia is not self-sufficient in many food commodities

As Table 10 shows, Malaysia is self-sufficient in poultry, pork, and fish. This means that for these commodities, Malaysia is able to meet the domestic consumption needs from its own production rather than from importing. However, Malaysia relies on imports of beef, dairy products, vegetables and fruits, and mutton. As for fruits, local production has barely changed over the past five years at approximately 1.6m metric tonnes per year, resulting in Malaysia's self-sufficiency declining from 64.7% in 2009 to 56.0% in 2014.

For vegetables, however, the production volume has more than doubled from 623,000 metric tonnes in 2009 to 1.4m metric tonnes in 2014, thus improving our self-sufficiency from 39.2% to 81.3% over the same period (Table 10 and Table 11). In particular, the country's vegetable production volume improved significantly in 2013 on account of higher production of cabbage, mustard greens, radish, and tomato. This resulted from greater planted areas for vegetables, notably in Johor, Pahang, and Sabah[32]. Nevertheless, the country still had to import RM5.3b worth of vegetables and fruits in 2014 to fulfil local demand, including vegetables and fruits that cannot be grown locally.

32 MOA (2015)

Malaysia is also heavily reliant on milk imports, given its low self-sufficiency of 4.9% (Table 10). In the last decade, Malaysia's import value of milk had doubled from RM1.3b in 2005 to RM2.6b in 2014[33].

Malaysia is not self-sufficient in many food commodities

Table 10: Malaysia's self-sufficiency in major food commodities, 2009 – 2014

Food commodity	2009	2010	2011	2012	2013	2014e	Average (2009 – 2014)
	Percentage						
Rice	70.4%	71.4	72.1	71.8	71.1	71.6	71.4
Fruits	64.7	65.8	60.0	57.9	55.2	56.0	59.9
Vegetables	39.2	41.2	58.4	58.7	83.7	81.3	60.4
Poultry meat	122.2	127.9	129.9	130.7	135.6	136.4	130.5
Poultry eggs	114.7	115.4	130.1	131.0	135.4	138.4	127.5
Pork	96.9	101.7	91.1	89.8	90.7	89.2	93.2
Beef	27.0	28.6	29.4	29.9	29.4	28.6	28.8
Mutton	10.3	10.6	11.4	15.9	14.2	18.1	13.4
Milk	4.9	4.9	5.1	5.0	5.0	4.9	5.0
Fish	100.1	101.7	123.3	127.3	121.0	111.1	114.1

Note: e = estimate
Source: MOA (2015)

[33] DOS (n.d.a)

Table 11: Malaysia's production of major food commodities, 2009 – 2014

Food commodity	2009	2010	2011	2012	2013	2014e
	'000 tonnes					
Paddy	2,511	2,465	2,579	2,599	2,604	2,645
Fruits	1,603	1,642	1,624	1,595	1,545	1,589
Vegetables	623	872	938	974	1,434	1,439
Poultry meat	1,202	1,296	1,334	1,374	1,458	1,496
Poultry eggs	556	590	621	644	684	717
Pork	206	234	214	218	217	216
Beef	42	47	49	51	52	52
Mutton	2	2	3	4	4	5
Milk	62	67	71	72	74	75
Aquaculture	472	581	527	634	530	531
Marine fisheries	1,393	1,429	1,373	1,472	1,483	1,390

Notes:
1. e = estimate
2. The unit for milk is million litres, where 1 litre = 1 kg

Source: MOA (2015)

Malaysia's sources of food imports are highly concentrated

Malaysia depends on only a handful of countries for its food imports, which makes the country vulnerable to supply shocks, posing a challenge to food security (see Chart 50).

For instance, Malaysia imports approximately 70% of the beef consumed domestically, which is equivalent to 102,000 metric tonnes of beef[34]. The beef imports are mostly sourced from two countries, namely India and Australia (Chart 51 and Chart 52), which together constitute 91% of frozen beef imports and 97% of fresh/chilled beef imports[35]. This could be partly due to the limited number of approved abattoirs overseas from which Malaysia can import its beef.

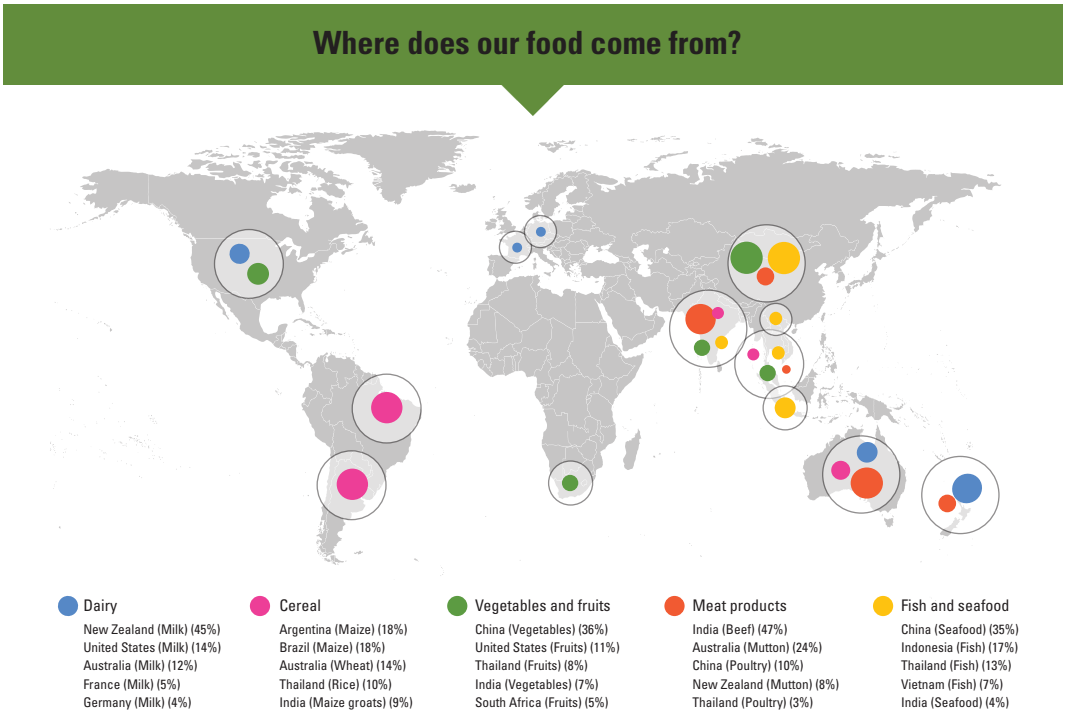
In addition to importing meat, Malaysia also imports cattle. In 2015, the country imported 69,217 live bovine animals, which were largely sourced from Australia and Thailand (Chart 53). Additionally, Malaysia also imported 132,142 live sheep and goats for breeding and slaughtering in the same year[36]. What is often considered to be local beef, mutton or lamb is actually meat from imported live animals that are raised in Malaysia and fed with imported animal feed.

As for Malaysia's imports of dairy and eggs, the top five source countries accounted for 81.7% of total dairy imports in 2015 (Chart 54). The bulk of the imports in this category is milk and milk products, constituting 80.8% of total imports, while egg imports are relatively insignificant at 0.7% (Chart 55).

34 ITC (n.d.)
35 Ibid.
36 Ibid.

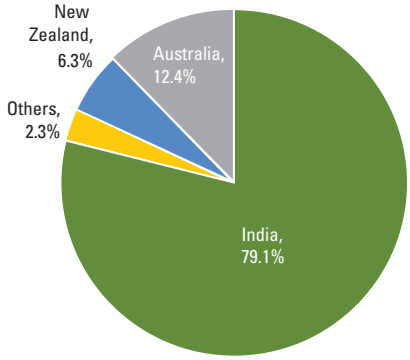
Malaysia depends on only a handful of countries for its food imports

Chart 50: Sources of food imports, 2014



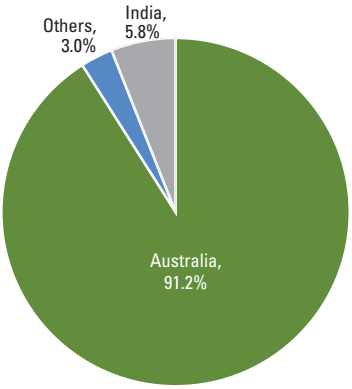
Note: Countries shown are only the top five importers for Malaysia, thus the percentages do not add up to 100.
Source: DOS (n.d.a)

Chart 51: Frozen beef imports, by country of origin, 2015 (by tonnes)



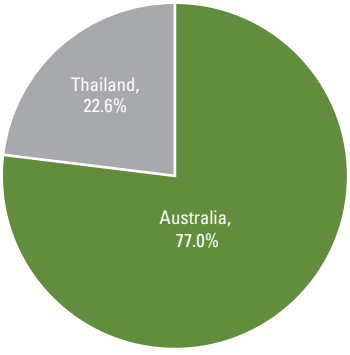
Source: ITC (n.d.)

Chart 52: Fresh/chilled beef imports, by country of origin, 2015 (by tonnes)



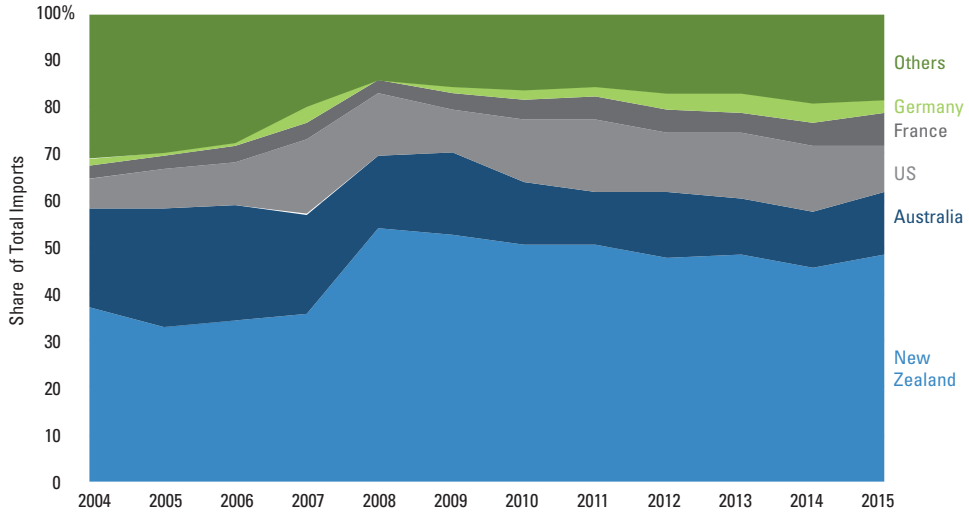
Source: ITC (n.d.)

Chart 53: Live bovine imports, by country of origin, 2015 (by number of animals)



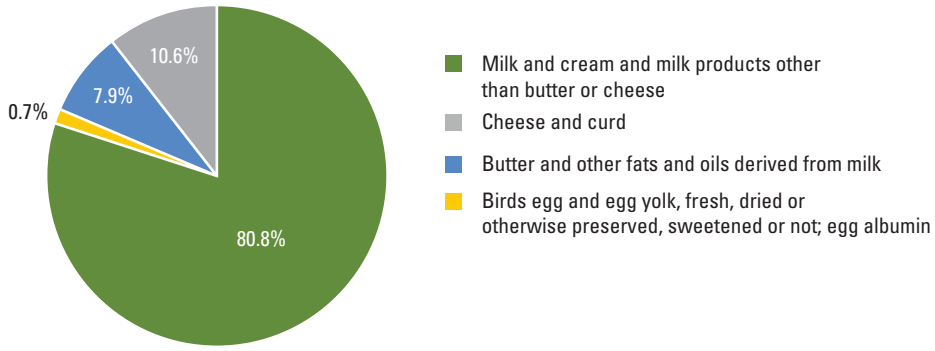
Source: ITC (n.d.)

Chart 54: Dairy imports, by country of origin, 2004 – 2015



Source: DOS (n.d.a)

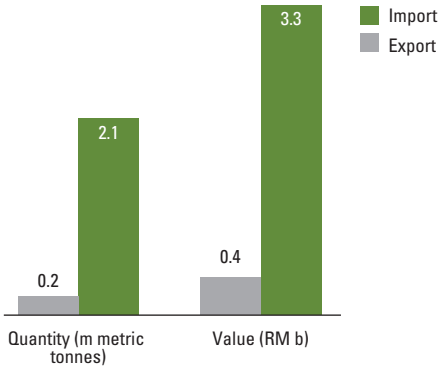
Chart 55: Breakdown of dairy and egg imports, 2015



Source: DOS (n.d.a)

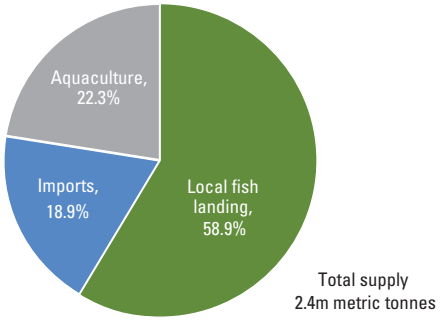
Malaysia imports more fish and seafood than it exports, both in terms of value and volume (Chart 56). In 2014, 81.2% of the fish supply in Malaysia was sourced domestically, with the remaining 18.9% imported (Chart 57). The five major import sources provided 72.1% of Malaysia's total fish and seafood imports in 2015[37] (Chart 58).

Chart 56: Import and export of fish, by value and volume, 2014



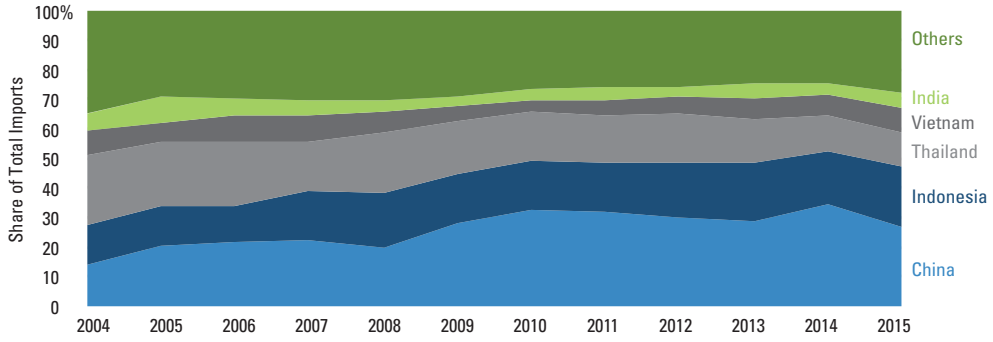
Source: LKIM (2015)

Chart 57: Fish supply in Malaysia, by source, 2014



Source: LKIM (2015)

Chart 58: Fish and seafood imports, by country of origin, 2004 – 2015

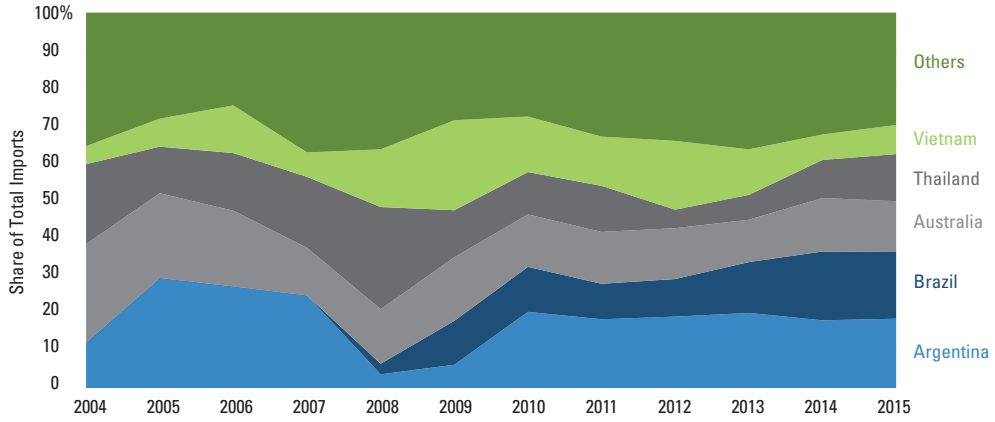


Source: DOS (n.d.a)

37 DOS (n.d.a) and KRI calculations

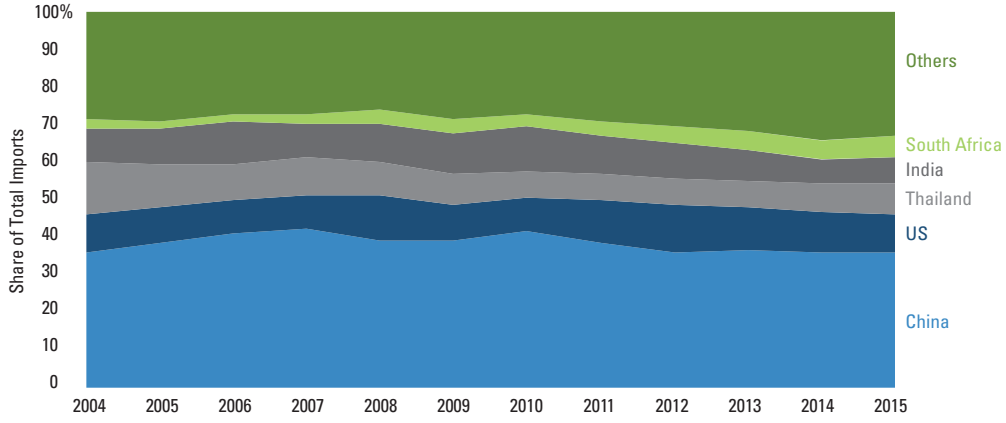
The concentration in import sources is also evident in cereals, and vegetables and fruits imports; in 2015, the top five source countries for imports of these food items accounted for 72.2% and 66.8% of total imports, respectively (Chart 59 and Chart 60).

Chart 59: Cereal imports, by country of origin, 2004 – 2015



Note: Most of Malaysia's cereal imports from Brazil and Argentina are maize.
Source: DOS (n.d.a)

Chart 60: Vegetables and fruits imports, by country of origin, 2004 – 2015



Source: DOS (n.d.a)

Ringgit depreciation and imported inflation

As discussed previously, many of Malaysia's food items as well as the production inputs are mainly sourced from overseas. As the ringgit has depreciated by 18.5% against the US dollar since September 2014, this has raised concerns of higher imported inflation[38].

However, according to the Central Bank of Malaysia (BNM), exchange rate movements only have a small impact on domestic inflation, including food prices[39]. The minimal impact of exchange rate depreciation on domestic inflation can be attributed to several factors, including price-administered policies by the Malaysian government for some items in the CPI basket[40], low import content in the CPI-Import basket[41], and reduced pricing power of firms due to stiffer competition[42]. Additionally, with regards to the ringgit's steep depreciation which began in September 2014, large declines in global oil and commodity prices muted the impact of exchange rate depreciation on inflation[43].

Price 'anomalies' in selected items

While seasonality and currency movements are cyclical, high food prices may also be driven by structural factors rooted in food markets, namely in the existence of pricing 'anomalies'. Three of the markets in which this may be the case is that of fresh vegetables, milk and dairy products, and chicken.

38 Measured as the rate of change in the RM/USD exchange rate between 2 September 2014 and 25 April 2016. Source: Bloomberg (n.d.)
39 BNM (2016b)
40 17.5% of the items in the CPI basket are price-controlled by the government. Source: Ibid.
41 Imported finished goods in the CPI-Import account for 7.2% in the consumption basket of the average Malaysian household. Source: Ibid.
42 Ibid.
43 Ibid.

Vegetables

Malaysia's Federal Agriculture Marketing Authority (FAMA) collects wholesale and retail prices only from major food markets. Thus, the abnormalities in vegetable prices mainly reflect the situation in these markets. We find that there are consistent and uniform transmissions of vegetable prices from the ex-farm to the retail level, which hints at margin fixing. Margin fixing is a form of price fixing and is prohibited under the Competition Act 2010[44].

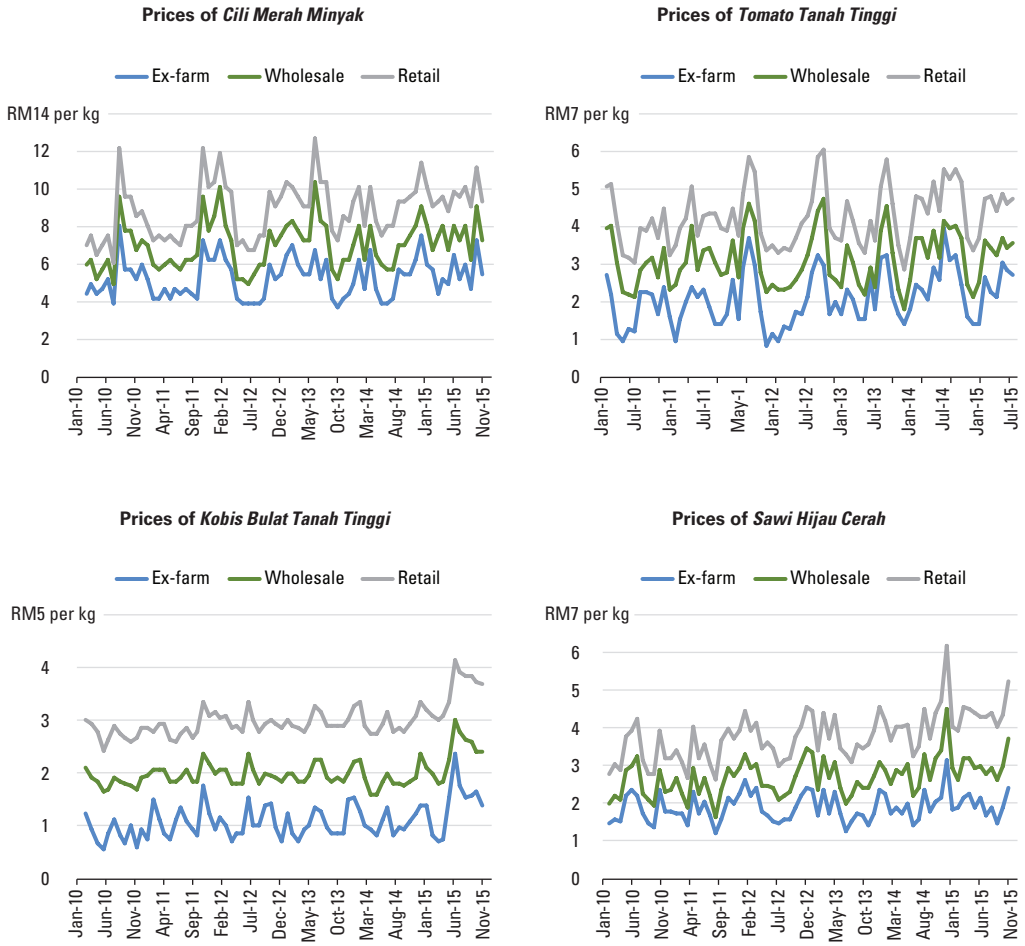
Anti-competitive conduct such as price fixing compromises competition which, in turn, harms consumers through, among others, higher prices, lower quality products, and lack of choices. Anti-competitive behaviour is also harmful to businesses unfairly disadvantaged by the anti-competitive practices of other players in the same market.

A review of FAMA prices between 2010 and 2015 indicates that the margins between different levels of the supply chain for many products are consistent over time. This trend is especially noticeable for vegetable produce. Chart 61 tracks the prices of selected agricultural products at ex-farm, wholesale, and retail levels. There appears to be sustained and uniform positive price transmissions at each stage of the supply chain for three of these products. For instance, the prices of red chillies (*cili merah minyak*) moved almost in unison at ex-farm, wholesale, and retail levels. By contrast, the prices of round cabbage (*kobis bulat tanah tinggi*) seem to be moving less uniformly across the different stages of the value chain as compared to the other vegetables (Chart 61).

[44] MyCC's Guidelines of Chapter 1 Prohibition (Anti-Competitive Agreement) states that "price fixing includes fixing the price itself or fixing an element of the price, such as fixing a discount, setting a percentage price increase or setting the permitted range of prices between competitors". Source: MyCC (2012)

There are 'anomalies' in vegetables prices …

Chart 61: Price transmissions in selected vegetables



Note: The charts refer to the prices recorded during the first week of every month for the period 2010 – 2015.
Source: FAMA (Various years)

Milk powder and other dairy products

Trends in Malaysia's milk powder and other dairy products prices do not reflect movements in global prices. Despite the drop in dairy prices globally (including in the major exporting countries where Malaysia imports dairy products from), the prices for milk powder and other dairy products in the country have been increasing.

As discussed earlier, Malaysia is heavily dependent on milk imports to fulfil its local demand. In terms of self-sufficiency, Malaysia can only fulfil 5.0% of its consumer demand for milk through local production, and as such, has to import 95.0% of its milk supplies[45].

Malaysia's heavy reliance on milk imports to meet its local demand exposes it to volatile import costs due to currency fluctuations.

Given the high level of importation, one would expect Malaysia's milk powder and other dairy products prices to largely reflect global dairy prices. However, the former has increased far more than the latter (Chart 62).

It should be noted that the price index for Malaysia's milk powder and other dairy products in Chart 62 and Chart 63 refers to the type of dairy products that Malaysian households spend the most on. In 2014, Malaysian households spent on average RM42.12 a month on dairy products[46], 71.4% of which was spent on milk powder and dairy products other than fresh milk, reconstituted milk, evaporated milk, and condensed milk.

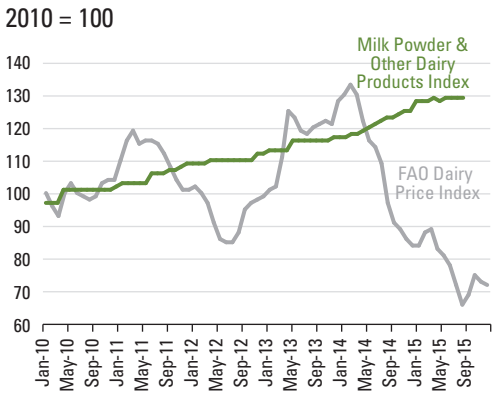
Also, when compared against the export price index for dairy products in the countries that Malaysia imports milk from, we found that Malaysia's dairy prices have been much higher than the milk export price indices in Australia and New Zealand (Chart 63). Collectively, Australia and New Zealand supplied 57.5% of Malaysia's dairy imports in 2014[47].

45 MOA (2015)
46 DOS (2015f)
47 DOS (n.d.a) and KRI calculations

In other words, Malaysia's dairy prices reflect neither the global nor the export prices of dairy products in its major import sources, namely Australia and New Zealand. The large discrepancy of price trajectories between Malaysia and other countries does not preclude potential competition and efficiency issues in Malaysia's dairy industry. As such, we believe that these areas provide fertile ground for further research and investigation.

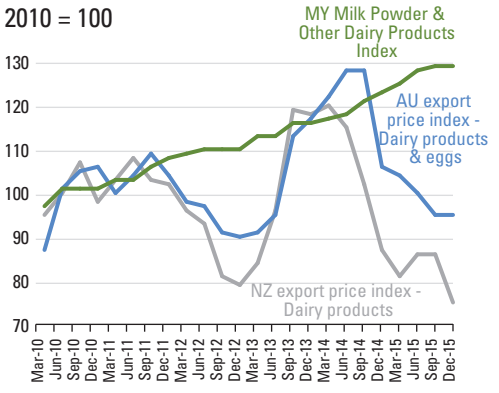
Malaysian dairy prices have diverged from global dairy prices

Chart 62: Monthly dairy price indices for Malaysia and the world, 2010 – 2015



Note: The indices used include similar (comparable) items in the basket of commodities.
Source: CEIC (n.d.)

Chart 63: Monthly dairy price indices for Malaysia, Australia, and New Zealand, 2010 – 2015



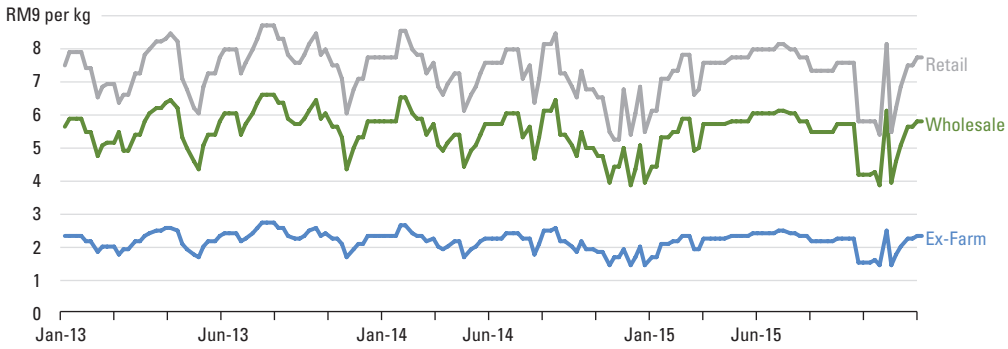
Note: The indices used include similar (comparable) items in the basket of commodities.
Source: CEIC (n.d.) and KRI calculations

Chicken

Uniform price transmissions can also be found in the broiler industry as shown in Chart 64. The different types of chicken prices move in lock-step with each other, particularly at the wholesale and retail levels.

Price transmissions in the broiler market are uniform

Chart 64: Price transmissions in chicken, 2013 – 2015



Source: DVS (n.d.) and KRI calculations

In March 2014, MyCC published a market review of the domestic broiler industry[48]. The remainder of this section summarises some findings of the review.

48 MyCC (2014)

Structure of the domestic broiler industry

The MyCC market review looked into the structure of the local supply chain that can be roughly divided into the following stages: feed milling, breeder farming of grandparent and parent stocks, broiler farming (for human consumption), broiler processing, wholesaling, and retailing. The feed milling stage was considered part of the supply chain because chicken feed is an essential input to broiler farming. Chicken feed, which is mainly imported, constitutes between 69% and 73% of total costs at the ex-farm level.

A key feature of the upstream segments of the broiler supply chain is the presence of vertically-integrated operators. These firms own and operate at three different levels of upstream production: feed milling, grandparent and parent stock farming, and broiler farming. Many firms also operate at the wholesale and retail levels. According to MyCC, "by coordinating the main stages of broiler production and supply, [vertical] integration is considered a cost-efficient form of business operation."

However, the report noted inconsistencies between the number of farming establishments registered with the Department of Veterinary Services (DVS) and the number registered at the Companies Commission of Malaysia (CCM). There were 2,402 broiler farms registered with DVS but only 292 with CCM. This lack of data on the actual number of broiler farms prevented MyCC from drawing definitive conclusions on the structure of the upstream broiler market.

Maximum permitted prices during festive seasons

The MyCC report also recommended the abolition of maximum permitted prices (more commonly known as controlled prices) during festive seasons. Malaysia's Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC) regularly imposes price controls at producer, wholesaler, and retail levels for selected items during festive seasons to protect consumers from excessively high prices. However, MyCC pointed out that such measures may have the unintended effect of weakening competition among traders. To quote the report:

> *"[The Festive Season Price-Controlled Scheme] may also inadvertently weaken retailers' competition with one another, as well as create market distortions and a lack of transparency in the commercial relationships between wholesalers and retailers. Instead of actually competing with one another, all retailers in a 'wet' market may decide to sell their broilers at a price close to or at the level of the 'permitted maximum' price. Although this could be seen as retailers' compliance with the 'permitted maximum' price, it could also be an outcome of collusive pricing by the retailers. Thus, even if consumers have benefitted from paying the 'permitted maximum' price, any collusive behaviour on the part of retailers will effectively deny consumers of the potential and additional benefits of lower prices that will result from actual market competition."*

Asymmetric price transmission

The report also found that price increases at the upstream level are transmitted more fully and speedily to the downstream level compared to price decreases. However, MyCC noted that "asymmetric price transmission, which involves the passing-on of a price increase (but not a price decrease) at one level of the supply chain to the next, is not inherently anti-competitive. It is the tacit sustenance of a positive price transmission that would be of some concern … "

The report suggested that MyCC undertake further study of the sources of asymmetric price transmissions in the broiler market.

SECTION 1

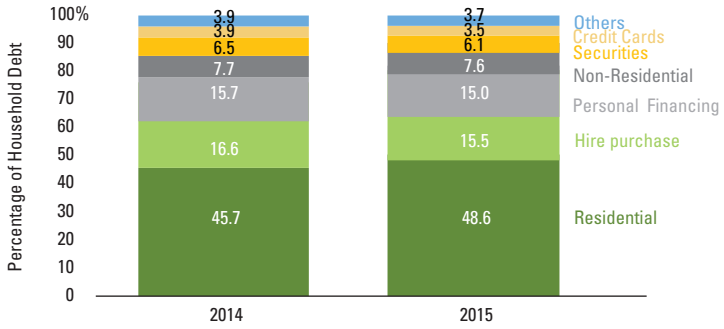
HOUSEHOLD SAVINGS AND DEBT

Household debt remains high

While household debt growth has been moderating since 2010 (2015: 7.3% YOY), the ratio of household debt to GDP remains high, at 89.1% in 2015 (2014: 87.4%). In aggregate, most household debt was undertaken to finance house purchases (Chart 65)—between 2014 and 2015, housing loans had expanded by 11.0%[49].

The bulk of household debt is tied up in housing loans

Chart 65: Profiles of borrowings, by purpose of financing, 2014 and 2015



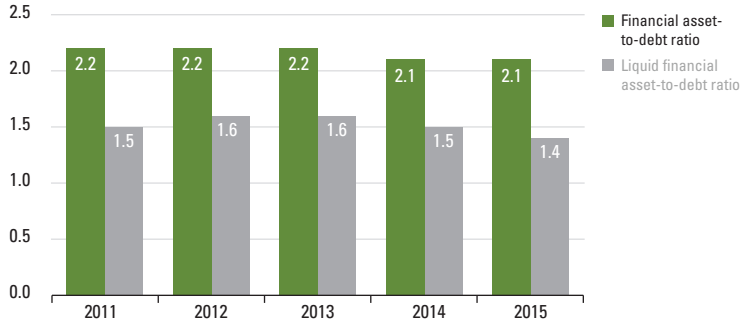
Source: BNM (2015) and BNM (2016a)

Nonetheless, the overall household balance sheet is still healthy, as households continue to accumulate more financial assets than debt. The total household financial asset-to-debt ratio has remained above two times over the past five years, while the total liquid financial asset-to-debt ratio has ranged from 1.4 to 1.6 times during the same time period (Chart 66). The latter means that in the aggregate, households have a ready pool of funds to meet debt obligations.

49 BNM (2016a)

The aggregate household balance sheet remains healthy

Chart 66: Household financial asset-to-debt and liquid financial asset-to-debt ratios, 2011 – 2015



Source: BNM (2016a)

Lower-income households are not very financially resilient

While household balance sheets look healthy at the aggregate level, households in different income classes face different financial risks. Households in the lower income brackets have much higher leverage (ie debt-to-income) ratios compared to those in higher-income brackets. According to BNM, although households earning less than RM3,000 a month have a relatively low share of total household debt (22.6% in 2015), they have a leverage ratio of seven times their annual income, on average. By comparison, higher-income households have a much lower leverage ratio on average; around three times[50].

Furthermore, more than 50% of the enrolments in the Debt Management Programme (DMP) set up by the Credit Counselling and Debt Management Agency (AKPK), consists of borrowers earning less than RM3,000 per month. BNM also reports higher delinquencies for compact car hire purchase and personal financing loans, suggesting that leveraged households in the lower-income segment face more financial difficulties compared to their higher-income counterparts[51].

50 Ibid.
51 Ibid.

A study of the financial fragility of urban households found that only 10.8% of these households were resilient to financial shocks caused by factors such as unemployment, physical impairment, death, divorce, and changes in interest rates or financial markets[52]. In addition, more than a fifth of these households would only be able to survive for less than three months if their incomes were cut off. Overall, more than half the households surveyed did not have any savings.

These findings also coincide with those from BNM's Financial Inclusion and Capability Study, which found that only 6% of Malaysians can survive more than six months, and 18% up to three months, after losing their main source of income[53].

In our previous *State of Households* report, we had proposed several measures to reform household debt such as requiring all providers of consumer credit to prominently advertise the true annual percentage rates (APR), realigning the regulation of consumer credit between the various government agencies currently in charge, and mandating the teaching of basic financial literacy in schools. To date, these proposals have yet to be implemented.

Household savings are low

A major component of financial resilience is savings. Although the most recent household savings rate is not publicly available, DOS published an annual report on the Distribution and Use of Income Accounts and Capital Accounts for 2006 to 2013, which provided estimates for total savings by households. In 2013, the last year for which such data was publically available, household savings stood at 1.4% of adjusted disposable income, and averaged at 1.6% for 2006 – 2013[54].

By comparison, the US household savings rate, which is generally acknowledged as being very low[55], is much higher at 5.0%. In fact, save for Japan, Malaysia's household savings rate as a percentage of adjusted disposable income in 2013 was the lowest among a selection of countries for which this data is publicly available, as shown in Table 12.

52 Selamah et al. (2015)
53 BNM (2016c)
54 DOS (Various years)
55 Marquis (2002), Lusardi et al. (2011), and Currier et al. (2015)

Malaysia's household savings rate is one of the lowest in the world

Table 12: Gross household savings as a percentage of adjusted disposable income, by selected country, 2013

Country	Gross household savings
Chile	9.8%
Korea	5.6
US	5.0
EU	4.7
MALAYSIA	**1.4**
Japan	0.0

Source: DOS (2015c) and OECD (2015b)

Malaysia's low household savings rate may seem counterintuitive, given that it takes into account EPF annual contributions and dividends. If employees are obliged to contribute at least 11% of gross salaries and employers, 13%, how can Malaysia's household savings rate be only 1.4% of adjusted household income?

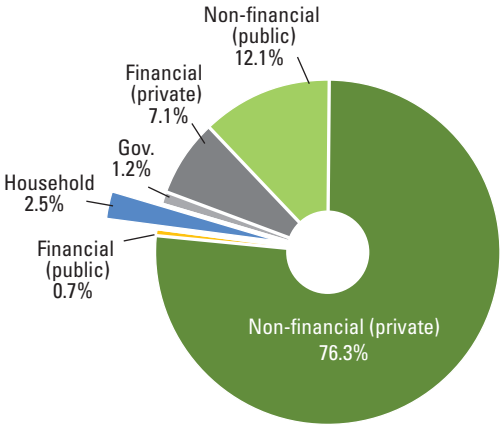
To understand this, several factors need to be considered:

- Not all households save with the EPF: active EPF members consist of less than half of the total Malaysian workforce (48.5% in 2015).
- While the Distribution and Use of Income Accounts and Capital Accounts takes EPF contributions into account when calculating savings, it also deducts withdrawals from the EPF by households (for example, withdrawals on retirement). So on a net basis, the EPF savings across all households are lower than one would expect.
- Furthermore, household savings do not include imputed earnings from assets such as capital appreciation from property holdings (see Appendix 3 for a more detailed explanation of how the ratio of household savings rate to adjusted disposable income is calculated).
- The ratio of 1.4% of household savings to adjusted disposable income is an average figure; some households may save far more than others, and are therefore more financially resilient.

The bulk of Malaysia's savings are by non-financial private institutions (such as companies). Only 3.0% of the country's total gross savings are by households (Chart 67). By comparison, Korean households—which have a much higher ratio of savings to adjusted disposable income—contributed 18.5% to their nation's total savings (Chart 68).

For Malaysia, households are a small source of national savings …

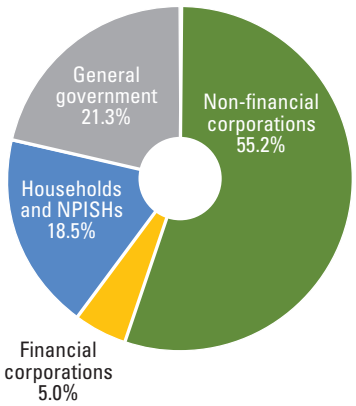
Chart 67: Malaysian gross savings as a percentage of total savings, by institutional sectors, 2013



Source: DOS (2015c)

… in contrast to Korea

Chart 68: Korean gross savings as a percentage of total savings, by institutional sectors, 2013



Source: KOSIS (n.d.)

SECTION

02

THE MALAYSIAN WORKFORCE

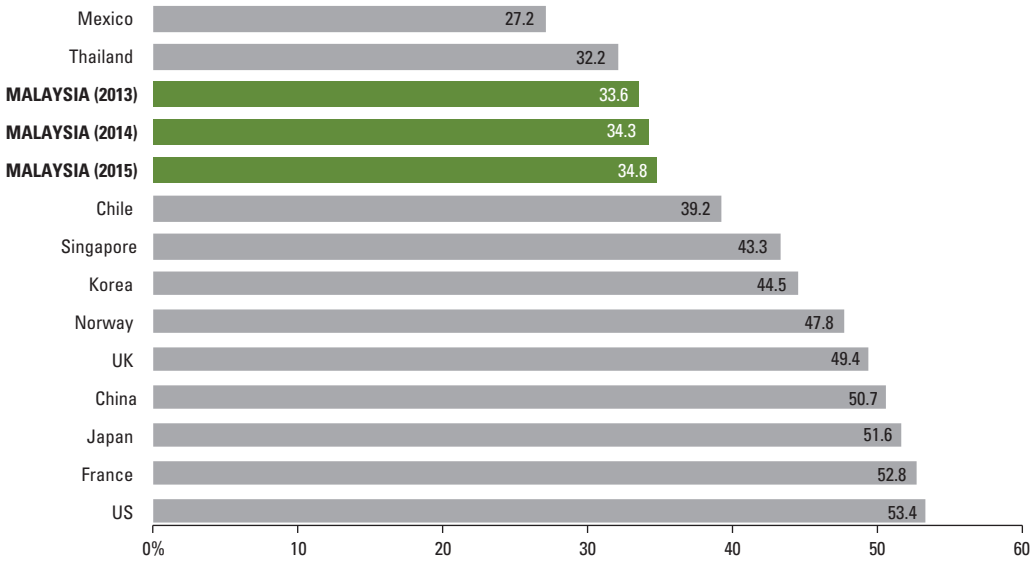
THE MALAYSIAN WORKFORCE

According to the 2014 HIS, at the national level, 65.0% of household income is sourced from paid employment. It stands to reason then, that in order for household incomes to improve, the focus should be on increasing workers' enumeration. As stated, however, between 2012 and 2014, median wages rose by only 3.3% (CAGR) in nominal terms, despite median household income rising by 12.5% (CAGR).

Malaysian wages as a share of GDP is relatively low, particularly compared with more developed countries (Chart 69).

Malaysia's wages as a share of GDP is low, especially compared to developed countries'

Chart 69: Employees compensation as a percentage of GDP

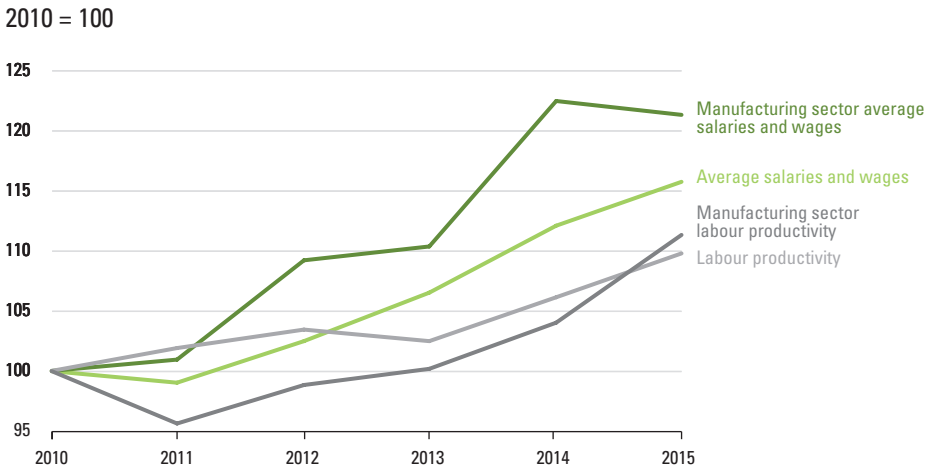


Note: For countries other than Malaysia, the percentages of GDP shown are based on latest publicly available data.
Sources: DOS (2015d), NESDB (2014), SINGSTAT (2016), and OECD (n.d.)

Could low labour productivity explain Malaysia's relatively low wages? From 2010 to 2015, growth in average salaries and wages for the overall economy outstripped that of labour productivity[56] (Chart 70). For the manufacturing sector, average wage growth began to outpace productivity growth after 2011. The wage and productivity time series used in Chart 70 begins in 2010 as it coincides with the first year in which DOS began to conduct the Salaries and Wages Survey, which collated salaries and wages data for the overall economy for the first time.

Is wage growth being suppressed by stagnant labour productivity?

Chart 70: Index of average salaries and wages vs labour productivity

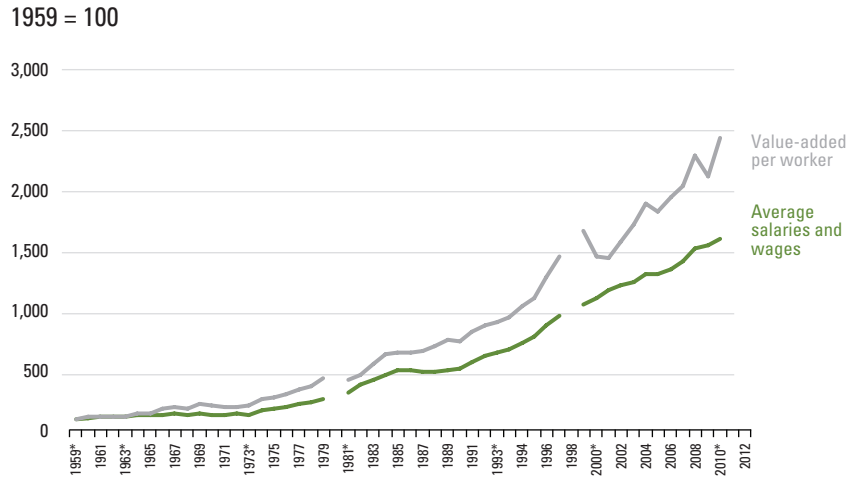


Note: The numbers for 2010 are based on latest publicly available data.
Source: DOS (2016d), DOS (2013b), and MPC (2016)

[56] As measured by GDP per worker. Source: MPC (2016)

However, a much longer time series—from 1959 to 2012—does exist for manufacturing wages and productivity (Chart 71). This shows that when compared to data from 1959, the converse occurs: manufacturing productivity grew faster than average salaries and wages for the whole time period. It would seem then, that the slower pace of productivity growth compared to that of average salaries and wages is a relatively recent phenomenon[57].

Chart 71: Index of average salaries and wages vs labour productivity for manufacturing



Note: The asterisk (*) denotes a year when the data was revised.
Source: DOS (2015h)

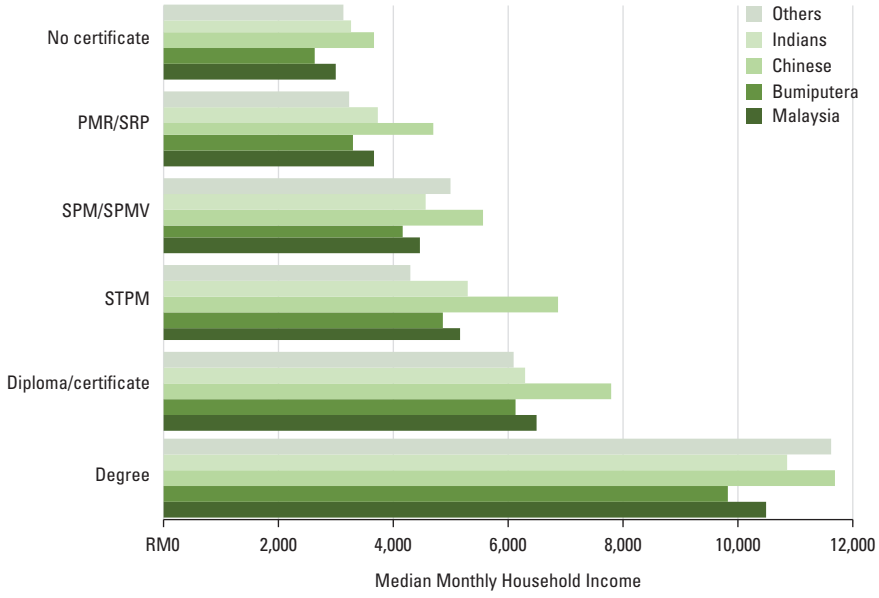
[57] This time series however, uses value-added per worker as a measure of productivity, rather than GDP (which equates to value-added plus subsidies less taxes). Source: DOS (2015h)

Skilled jobs pay much better

The relationship between productivity and wages may also be affected by the level of skills in the labour force. Across all ethnicities, households headed by professionals and skilled workers earn more (Chart 72 and Chart 73). The wage premiums for workers at each level of educational attainment beyond the primary level (UPSR) differ markedly (Table 13). In percentage terms, the median monthly wage premium is the highest between degree and diploma-holders. In comparison, the wage premium earned by diploma-holders compared to certificate-holders is proportionately lower.

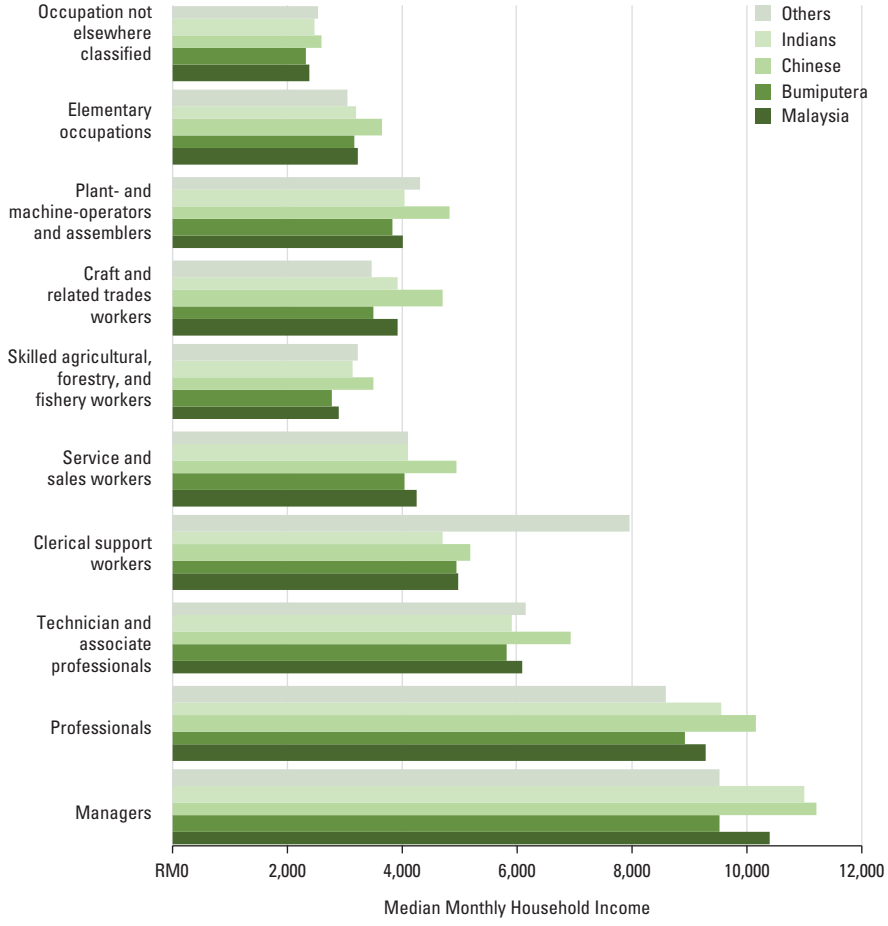
Skilled workers earn more across all ethnicities

Chart 72: Household income, by educational attainment, 2014 (RM)



Source: DOS (2015e)

Chart 73: Household income, by occupation of head of household, 2014 (RM)



Source: DOS (2015e)

The wage premium is highest between diploma vs certificate holders

Table 13: Median monthly wages and wage premium, by education levels, 2015

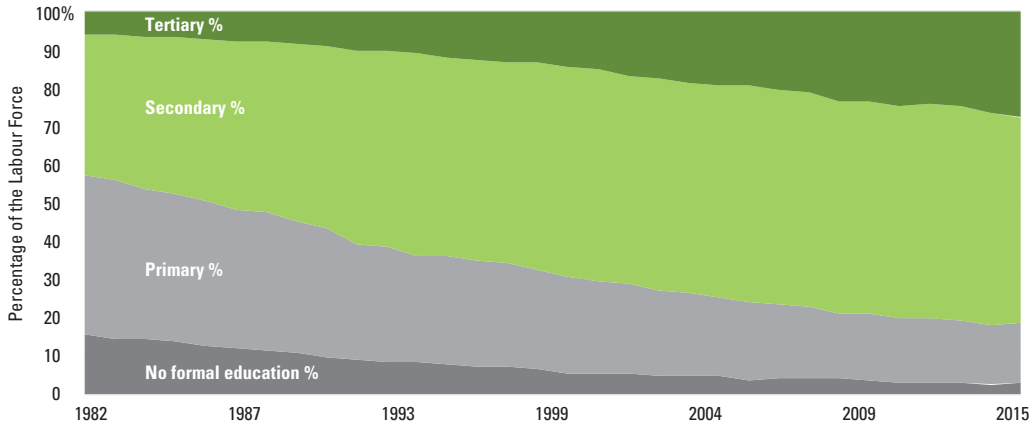
Education level	Median monthly salaries and wages (2015)	Wage premium, compared to previous level of attainment	Wage premium, compared to 'SPM and below'
No Certificate	RM1,000		
SPM and below	1,400	40.0%	
STPM/Certificate	2,000	42.9	42.9%
Diploma	2,800	40.0	100.0
Degree	4,350	55.4	210.7

Source: DOS (2016d)

Indeed, over the past three decades, the proportion of the workforce with tertiary education has grown markedly as a share of the labour force as well as those employed, just as the share of those with no education has fallen (Chart 74 and Chart 75). In 1982, one in 16 members of the labour force had tertiary education, compared to more than one in four in 2015. In 2015, the share of employed persons with tertiary education stood at 27.4% compared to 24.1% in 2012. The share of those without an education among the employed has remained unchanged, at 3.1% in 2012 and 2015.

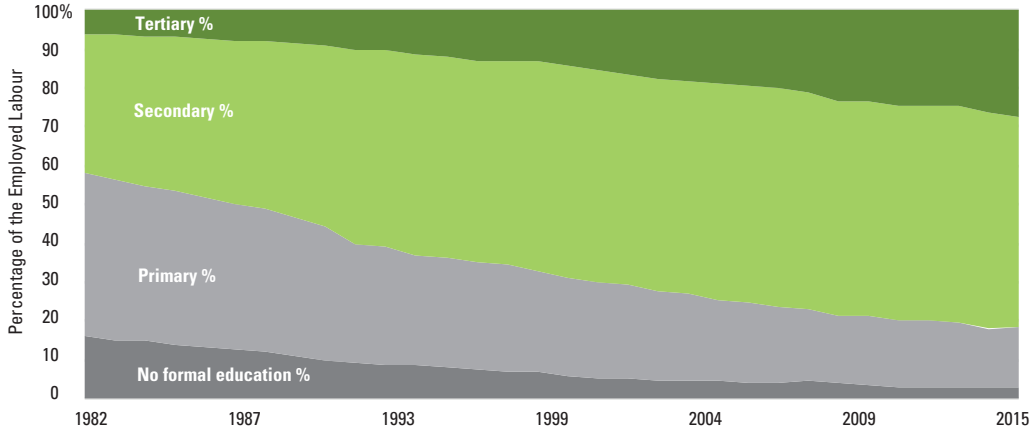
Malaysian workers have become more educated

Chart 74: Labour force, by educational attainment, 1982 – 2015



Source: DOS (2016c), DOS (2015g), and DOS (n.d.b)

Chart 75: Employment, by educational attainment, 1982 – 2015

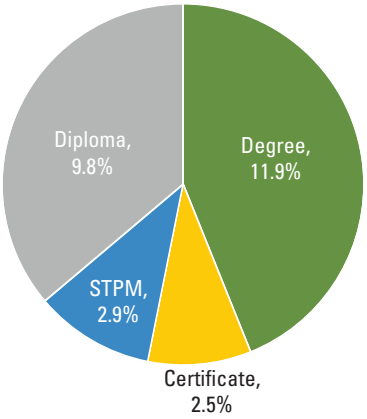


Source: DOS (2016c), DOS (2015g), and DOS (n.d.b)

Among the percentage of those employed who have post-secondary education, degree-holders—who are the highest paid—are the largest group (Chart 76).

Degree-holders is the largest group of employed person with tertiary education

Chart 76: Percentage of employed persons with tertiary education, by level of certification, 2015



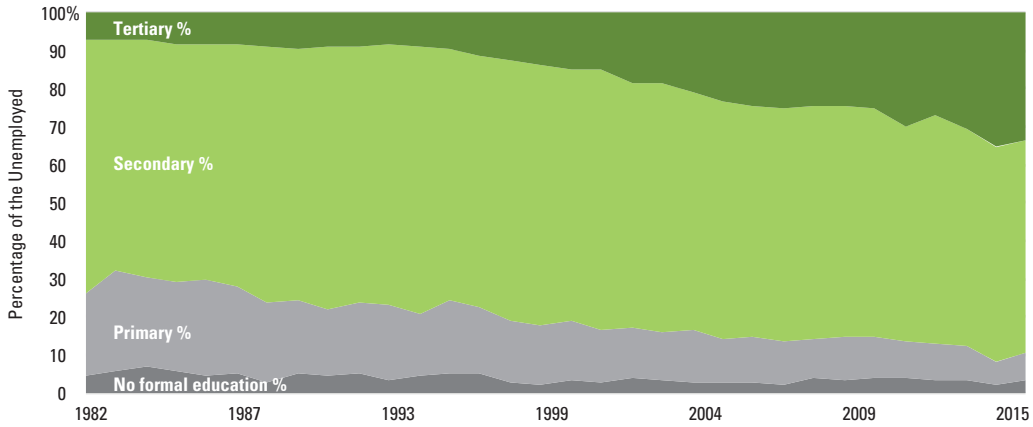
Source: DOS (2016c)

The educated and youths are a growing share of the unemployed

The proportion of workers with tertiary education has also grown as a share of the unemployed (Chart 77). While this may be a statistical artefact due to the general increase of those with tertiary education as a share of the labour force, this trend raises concerns regarding the employability of graduates in Malaysia.

A growing share of the unemployed have tertiary education

Chart 77: Unemployment, by educational attainment, 1982 – 2015



Source: DOS (2016c), DOS (2015g), and DOS (n.d.b)

In 2015, 33.8% of those unemployed had tertiary education, compared to 35.2% in 2014 and 30.6% in 2013. According to the Tracer Study by the Ministry of Higher Education (MOHE), a quarter of the 254,161 students who graduated in the same year remained unemployed six months after graduation (Table 14). It should be noted, however, that the unemployment figures derived from the Tracer Study—which asks if graduates are employed six months after graduating—may not be aligned with the definition of unemployment used by DOS (see Glossary).

A quarter of graduates are unemployed

Table 14: Employment status of graduates, 2014 (percentage)

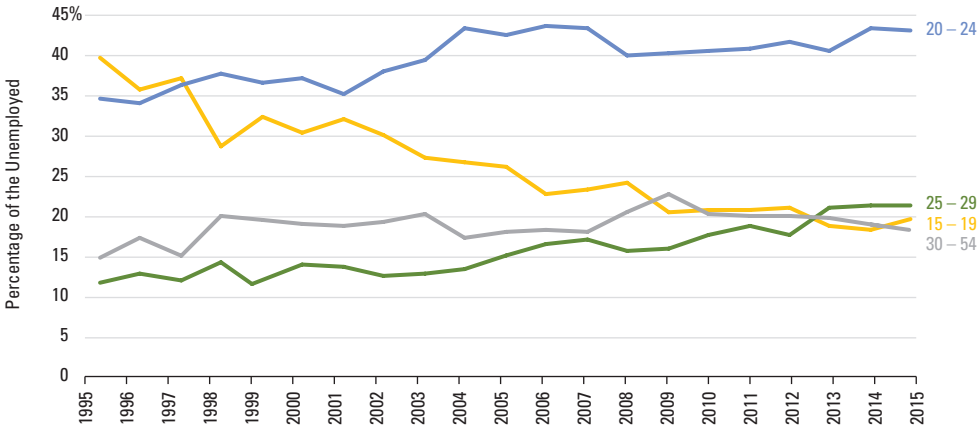
Employment Status	Total	Public Universities	Private Universities	Poly-technics	Community Colleges	Other educational institutions
Employed	48.4%	45.7	49.0	56.3	74.7	45.3
Pursuing further studies	20.9	23.2	19.3	13.8	18.8	30.9
Upgrading skills	1.5	1.6	1.5	1.6	0.5	0.9
Waiting for work placement	4.3	4.9	4.3	2.2	0.2	2.0
Unemployed	24.9	24.6	25.9	26.1	5.8	20.9

Source: MOHE (2015)

Meanwhile, youth unemployment is on the rise, with young people aged 20 – 24 years as well as those aged 25 – 29 making up the two largest age cohorts of the unemployed (Chart 78). While the falling proportion of unemployed youth aged 15 – 19 is encouraging—suggesting that more youth in this age group are pursuing education—the rising unemployment rate among those aged between 20 and 29 merits concern.

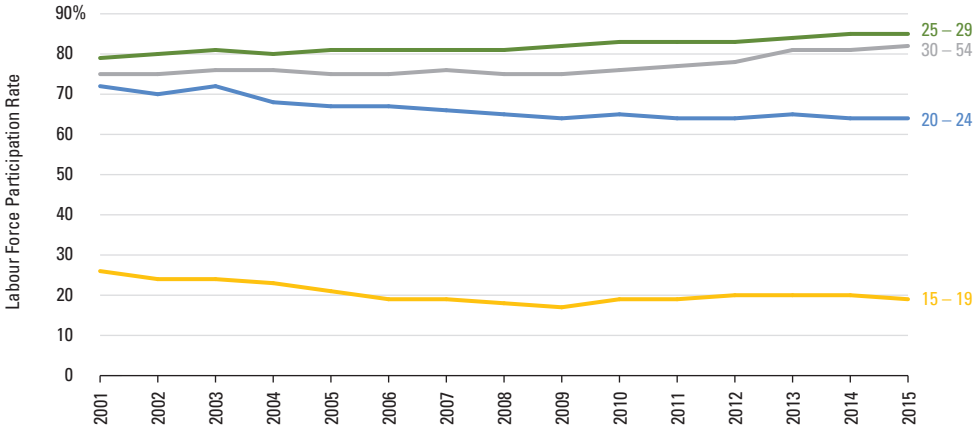
Youth unemployment is on the rise

Chart 78: Percentage of unemployed, by age group, 1995 – 2015



Source: CEIC (n.d.)

Chart 79: Labour force participation rate, by age group, 2001 – 2015

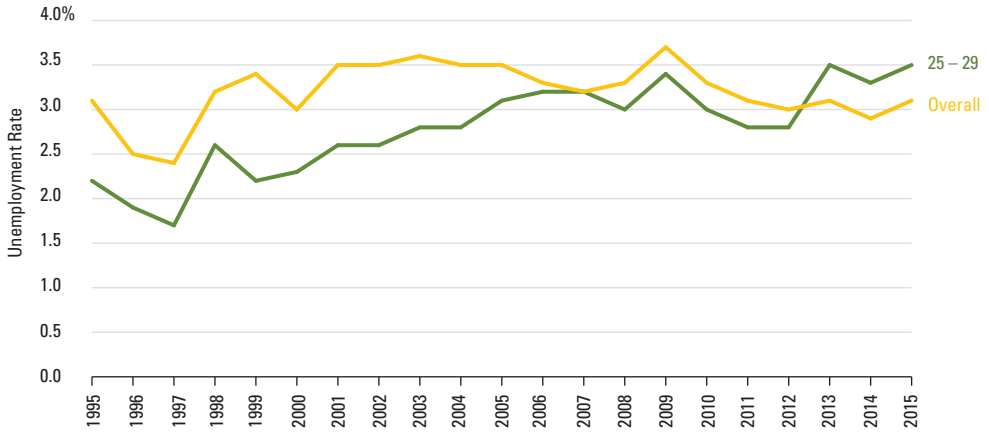


Source: DOS (2016c), DOS (2015g), DOS (n.d.b), and KRI calculations

The unemployment rate has been steadily rising for the 25 – 29 age group. While it trended below overall unemployment before 2013, unemployment among 25 – 29 year olds has since exceeded the overall unemployment rate, standing at 3.5% in 2015, compared to the national unemployment rate of 3.1% (Chart 80).

Unemployment in the 25 – 29 age group has overtaken overall unemployment

Chart 80: Overall unemployment rate vs unemployment rate for 25 – 29 year olds, 1995 – 2015



Source: DOS (2016c), DOS (2015g), and DOS (n.d.b)

Rising unemployment among the 20 – 29 age group cohort could signal structural rather than cyclical challenges. The World Bank, for instance, highlighted that Malaysian firms consistently report difficulties in sourcing talent as one of their top business challenges[58]. Among the skills gaps listed are basic numeracy and literacy skills, as well as 'softer' skills such as analytical thinking, communication, and problem-solving abilities.

[58] Sander et al. (2014)

While efforts have been made to address the shortage in employable skills, with the World Bank estimating that RM1b was spent on active labour market programmes in 2013, these efforts remain very much supply-driven. A TalentCorp/World Bank survey found that fewer than 30% of firms found graduate employability programmes useful[59]. There is therefore a need to strengthen the link between these human resource initiatives and firms' requirements. KRI will be undertaking research on youth unemployment to examine the issues and challenges faced by youths in transitioning from school to work.

[59] Ibid.

SECTION 2

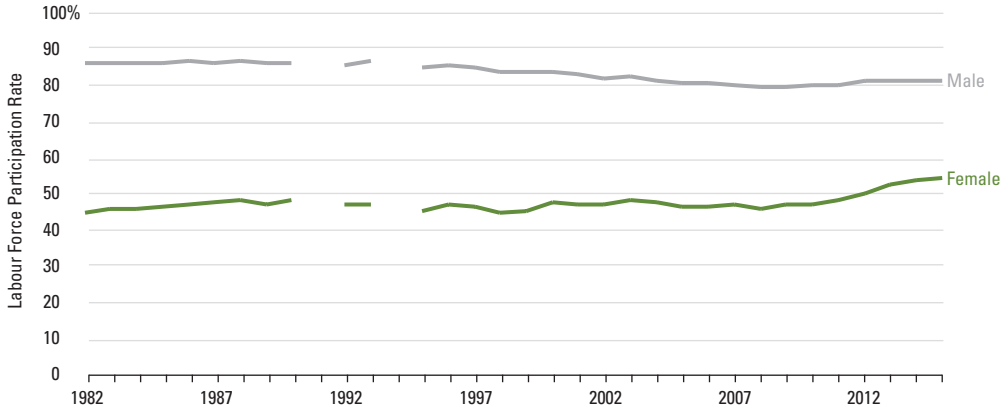
WOMEN IN THE WORKFORCE

Women's labour force participation has increased

Arguably, the government's efforts to increase women's labour force participation—including double tax deductions for firms to train women returning to the workforce—have been more successful than those intended to address youth unemployment. Since 2008, women's labour force participation rate in Malaysia has been consistently increasing from 45.7% to 54.1% in 2015 (Chart 81).

Malaysian women's labour force participation has been steadily increasing…

Chart 81: Labour force participation rate, by gender, 1982 – 2015



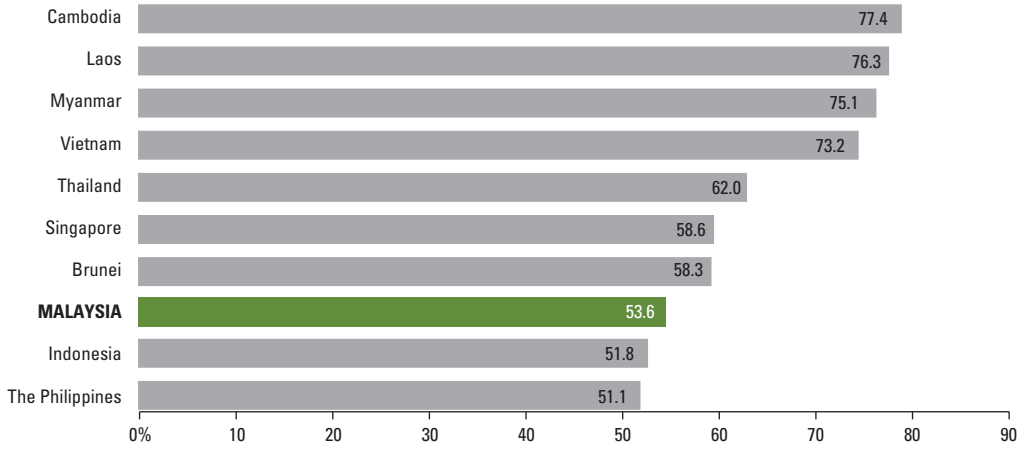
Source: DOS (2016c) and DOS (2015g)

Nonetheless, more should be done. There are approximately 10.3 million working-age women[60] in Malaysia, but only 5.4 million of them are in the labour force[61]. Women's labour force participation rate in Malaysia is substantially lower compared to men's, across time, age group, and education level. In fact, the Malaysian women's labour force participation rate is the third lowest in the ASEAN region (Chart 82).

60 Working age is defined as those between the ages of 15 and 64. Source: DOS (2016c)
61 DOS (2016c) and CEIC (n.d.)

… although it remains one of the lowest in ASEAN

Chart 82: Women's labour force participation rate in ASEAN, 2014 (percentage)



Source: CEIC (n.d.)

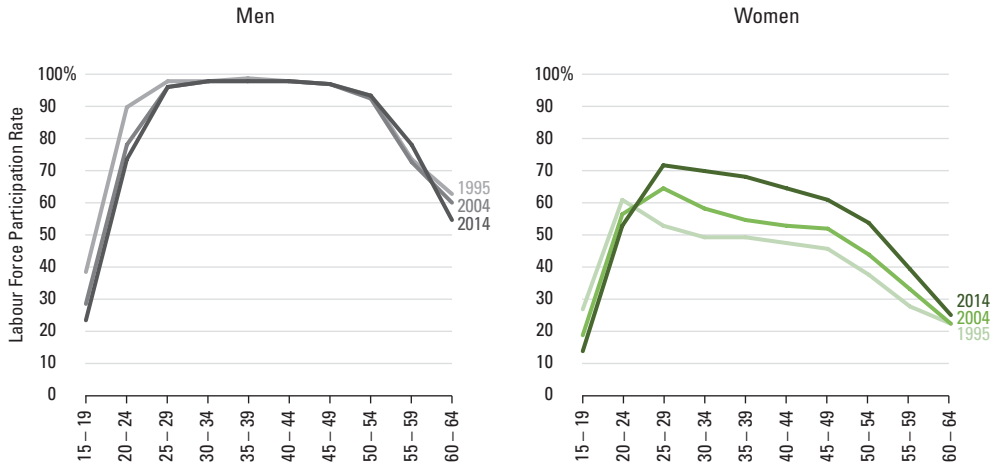
Comparatively, the labour force participation rate for men between the ages of 25 and 54 is close to 100% and this pattern has held true from 1995 until now. By contrast, the women's labour force participation rate peaks between the ages of 25 and 29 years before dropping. In 2014, this participation rate was 72.1% for women aged 25 – 29, before dropping to 53.9% for women in the 50 – 54 age group (Chart 83).

As highlighted by the World Bank in 2012[62], unlike its counterparts in East Asia, the labour participation profile for Malaysian women by age does not display a 'double peak', meaning that women's labour force participation peaks between 25 and 29 years old, coinciding with the age around which women usually bear children, after which it declines and does not rise again thereafter (Chart 83).

62 Sander et al. (2012)

Women's labour force participation still trails behind men's

Chart 83: Labour force participation rate, by age for men and women, 1995, 2004, and 2014

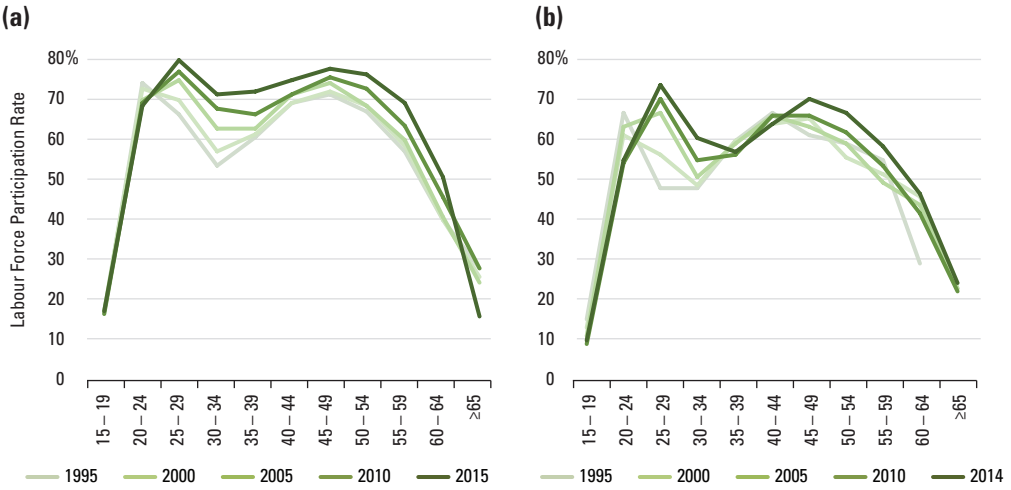


Source: CEIC (n.d.)

By contrast, women's labour force participation profiles in Japan and Korea are double-peaked (Chart 84); there is an initial peak in the typical childbearing years, when women enter the labour force, then a drop as they marry and have children, after which there is another peak as they re-enter the workforce after their children reach a certain age.

Women's labour force participation is double-peaked in Japan and South Korea

Chart 84: Women's labour force participation rate by age in (a) Japan and (b) Korea, selected years



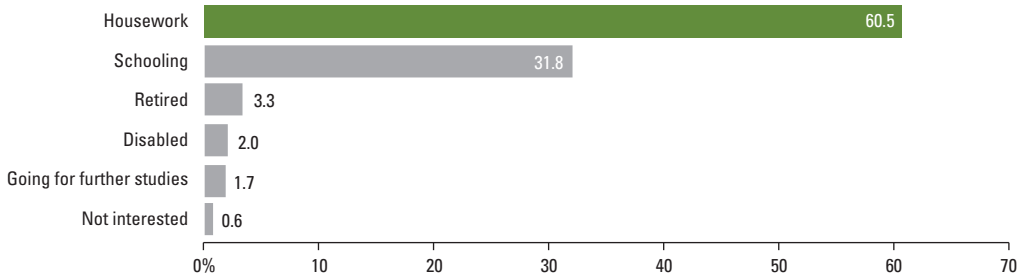
Notes:
1. Prior to 1997, the ≥65 age group was not included in Korea's labour force survey.
2. Korea's latest publicly available data is that of 2014.
Source: ILO (n.d.)

In Malaysia, a large number of women leave the labour force due to housework (Chart 85). This implies that the main impediment for women's participation in the labour force is domestic responsibilities associated with starting families. The World Bank estimates that the number of 'absent women'—women who could be expected to be in the labour market given Malaysia's level of development but are not—range from 500,000 to 2.3 million[63].

63 Ibid.

Housework hampers women's participation in the labour force

Chart 85: Reason given by women outside the labour force for not seeking work, 2014



Source: DOS (2016c)

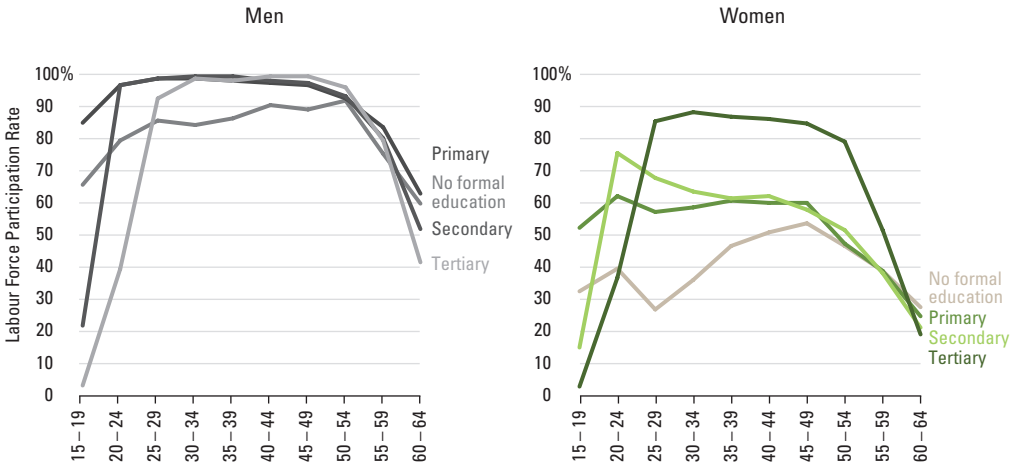
More education for women means higher labour force participation …

In 2015, the majority of women in the Malaysian workforce have secondary education, constituting 49.2% of the female labour force[64]. Their labour force participation rate peaks at 74.7%, between the relatively early ages of 20 and 24. This figure drops sharply to 67.2% and 63.2% for women in the 25 – 29 and 30 – 34 age groups, respectively, before falling more gradually to 51.3% for those between 50 and 54 years (Chart 86).

64 DOS (2016c)

Most Malaysian women in the workforce have secondary education

Chart 86: Labour force participation rates, by education level and age for women and men, 2015



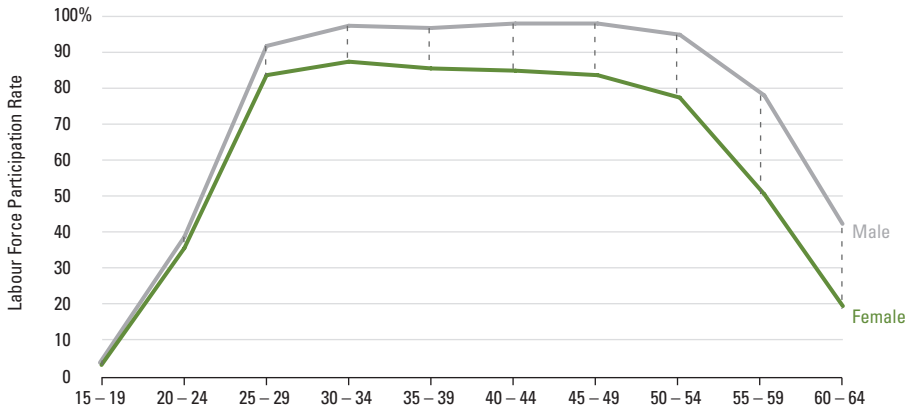
Source: DOS (2016b)

By contrast, the labour force participation rate for women with tertiary education peaks at 87.7% between the ages of 30 and 34. The figure remains consistently above 80.0% between the ages of 25 and 49 before dropping to 78.1% for those in the 50 – 54 age group.

For women with tertiary education, the labour force participation rate peaks at the 30 – 34 age group, which is 10 years later compared to those with secondary education. In fact, the labour force participation profile for women with tertiary education resembles that of men with tertiary education more than for women with secondary education. However, the labour force participation rate for women with tertiary education is much lower compared to the corresponding rate for men, with this gap widening for older age groups (Chart 87).

Among those with tertiary education, women's labour force participation trails behind men's

Chart 87: Labour force participation rates for men and women with tertiary education, 2015



Source: DOS (2016b)

… but not for men

Higher education levels among men in Malaysia are associated with lower labour force participation; 90.4% of working-age men with primary education are in the labour force, while the corresponding rates for men with secondary and tertiary education are lower at 81.4% and 73.2%, respectively. This observation can be explained by the fact that men with higher education tend to delay participation in the labour force in order to complete their studies.

The labour force participation rates rise sharply for men with tertiary education. Of this group, 92.1% of men aged 25 – 29 are in the labour force, compared to 39.2% of men aged 20 – 24, implying that the majority of men aged 25 – 29 are already in the labour force. This relatively late entry into the labour force pulls down the overall labour force participation rate for men with tertiary education. By contrast, men with secondary education tend to enter the labour force earlier; by the age of 20 – 24, the majority of men with secondary education are already working. Their labour force participation rate rises sharply from 22.0% to 96.2% between the age groups of 15 – 19 and 20 – 24.

Entry into the workforce for men with primary education comes earliest and they remain working the longest. Their labour force participation rate is 84.5% for those in the 15 – 19 age group and is consistently above 90% between the ages of 20 and 54. The rate drops to 83.1% and 62.5% for those in the 55 – 59 and 60 – 64 age groups, respectively. These figures are significantly higher compared to the corresponding rates for men with secondary or tertiary education (Chart 86).

SECTION 03

POPULATION AGEING

SECTION 3

POPULATION AGEING

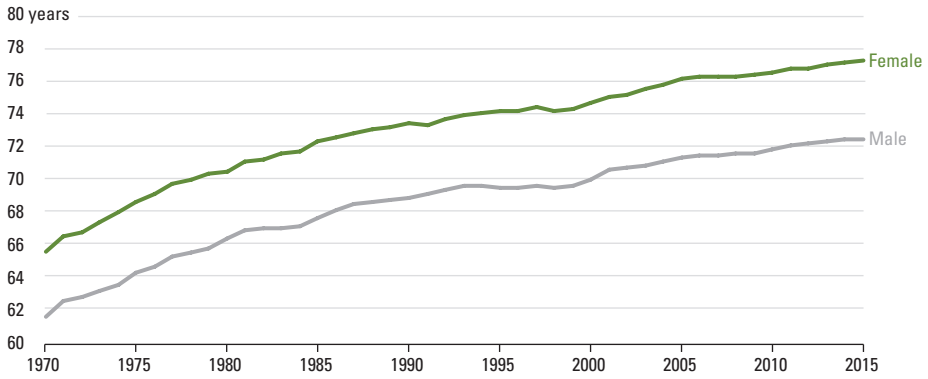
The focus of this report has been the improvements in household incomes between the 2012 HIS and the 2014 HIS. While the latest figures indicate that the state of Malaysian households has improved between the two years, in the long run, there may be emerging challenges that the nation would have to face. Population ageing represents one such challenge.

Malaysians are experiencing increased life expectancies

Over the past few decades, Malaysians have enjoyed steadily increasing life expectancies. This is illustrated in Chart 88, which shows that female babies born in 2015 are expected to live to the age of 77.4, while male babies born in the same year are expected to live to the age of 72.5. This is a vast improvement compared to 1970, when female babies born in that year were expected to only live to the age of 65.5, while their male counterparts to the age of 61.6.

Malaysians are living longer

Chart 88: Life expectancy at birth by sex, 1970 – 2015



Source: CEIC (n.d.)

Additionally, as Table 15 shows, life expectancy increases with age; an individual who makes it to one age group is more likely to survive to the next age group. As such, while the life expectancy at birth (age 0) for females in 2015 was 77.9 years, a female who reached the age of 60 in 2015 could actually expect to live to the age of 80.9. Similarly, while life expectancy at birth for males in 2015 was 72.5 years, a male who reached the age of 60 in the same year could expect to live to the age of 78.4. Longer life expectancy means that Malaysians need more savings for their retirement. For example, a female who retired at the age of 60 in 2015 should be financially prepared to live for an additional 20.9 years, and her male counterpart for an additional 18.4 years.

Life expectancy increases with age

Table 15: Life expectancies at selected ages, by gender, 2015

Age	Male	Female
0	72.5 years	77.9
50	76.2	79.5
55	77.2	80.1
60	78.4	80.9
65	79.9	81.9
70	81.5	83.0
75	83.7	84.8
≥ 80	86.1	87.0

Source: DOS (2015a)

Can Malaysians afford to live longer?

Considering the increases in life expectancy, would a person who retires at the age of 60 be able to finance himself/herself for the rest of his/her (longer) life?

Even if we take the average EPF savings of those in the 51 – 55 age groups at face value (disregarding the distortions caused by the top 1.6%), it seems that RM159,952 may not be sufficient to last the older age groups a lifetime[65]. After adjusting for both inflation and interest rates (assumed to be at 2.1% and 3.3%, respectively, based on average 2015 figures), we estimate that this amount would only last an individual 15.6 years, if they live on the current PLI of RM930 per month for urban Peninsular Malaysia. This illustrates the concern that the population may not be well-prepared to financially support themselves as they continue to live longer.

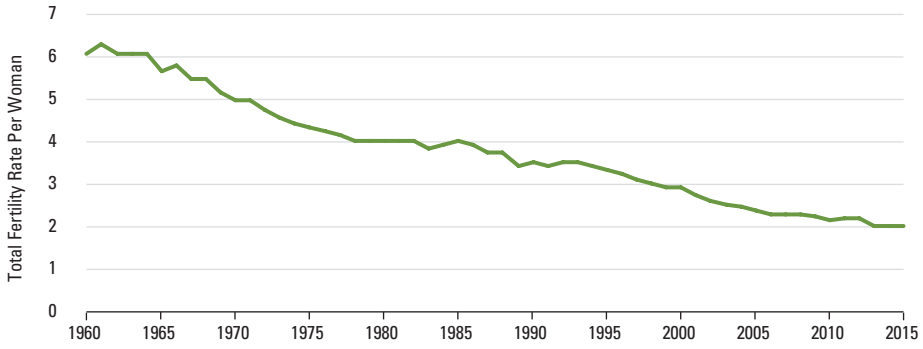
[65] EPF (2016) and KRI calculations

Malaysia's total fertility rate has been decreasing

Concurrently, fertility rates have fallen sharply, as can be seen in Chart 89. In 1960, the total fertility rate (TFR) in Malaysia was 6.0 children born per woman; this figure halved to 3.0 by 1998. In 2015, the TFR was 2.0 children per woman[66], falling below the replacement level fertility[67].

At the same time, Malaysians are having fewer children

Chart 89: Total fertility rate, 1960 – 2015



Source: CEIC (n.d.)

Decreased fertility rates, in combination with longer life expectancies, are the drivers of the phenomenon known as population ageing, defined by the United Nations (UN) as "the process by which older individuals become a proportionally larger share of the total population."[68] In 2015, DOS estimated that for the first time, the share of the Malaysian population aged 60 years and older exceeded the share of the population younger than five years old by around 0.6%[69]. This change signals the ageing of our population and its socioeconomic consequences. Furthermore, the gap between the two age groups is set to grow

66 CEIC (n.d.)

67 The replacement level fertility refers to the average number of children a woman needs to give birth to in order to replace herself and a male partner. In a theoretically ideal situation, this number is 2.0 (that is, a woman would need to give birth to two children, one female and one male, to replace herself and a male partner). However, after accounting for variables such as childhood mortality and the imbalance in the gender ratio of babies born, the replacement level is usually referred to as 2.1. Source: UN (2007)

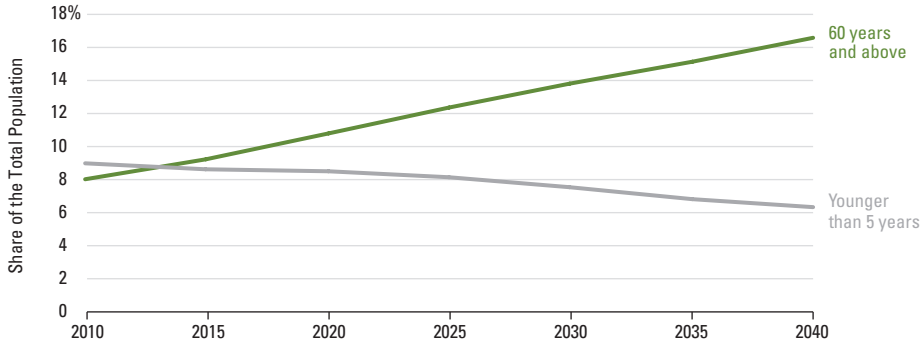
68 UN (2001)

69 DOS (n.d.c)

significantly over the next three decades, as demonstrated in Chart 90. According to the National Population and Family Development Board (LPPKN), based on projections made by DOS, Malaysia is expected to reach ageing population status by the year 2035, at which point 15% of the total population will be 60 years and older[70].

The first signs of population ageing?

Chart 90: The percentage of the Malaysian population aged 60 years old and above compared to the population younger than five years old, 2010 – 2040



Notes:
1. These are based on population estimates by DOS.
2. DOS population projections take into account a combination of factors including estimated birth rates, mortality rates, and net migration, with certain assumptions.

Source: DOS (n.d.c)

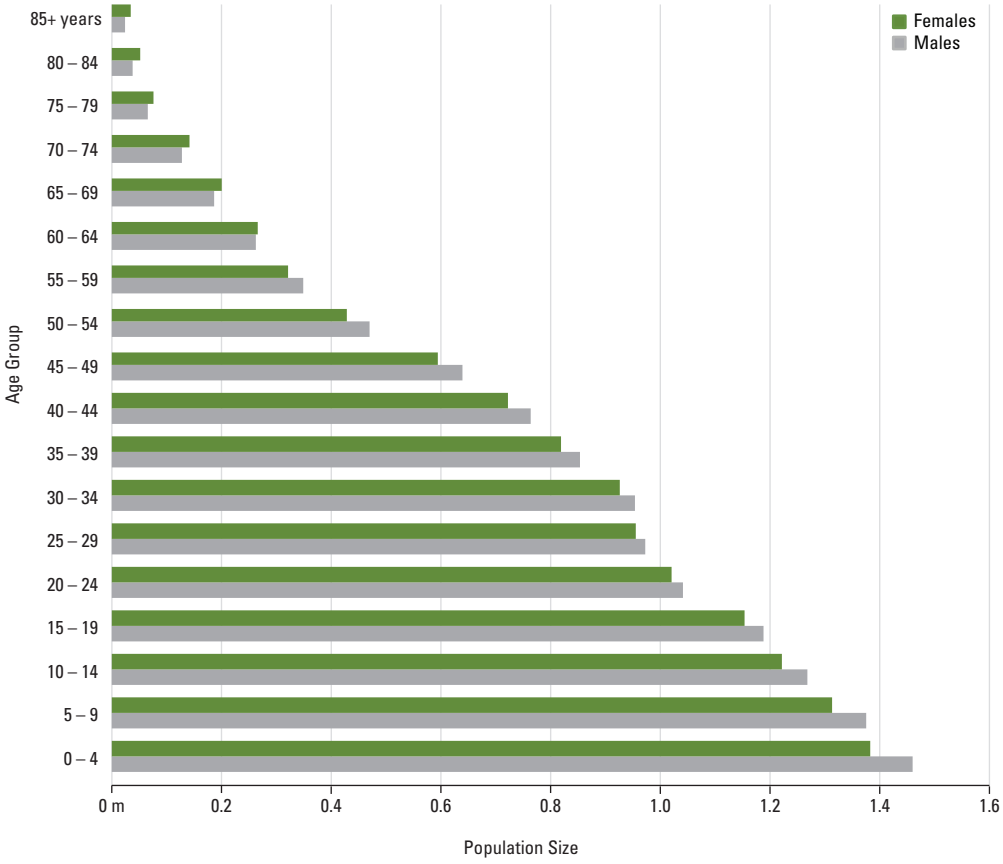
70 LPPKN (n.d.)

Demographic changes

Malaysia's population structure illustrates the demographic changes that the nation has faced and will continue to face. Chart 91 shows that in 2000, Malaysia's demographics still resembled the traditional shape of a population structure, whereby higher fertility rates and shorter life expectancy meant that there were more people being born than there were people who made it to old age. As a result, the base is the widest part of the structure, which then tapers off towards the older age groups. However, as can be seen in Chart 92, in 2015, the structure has begun to shift such that the base is no longer the widest part of the structure. This shows that the proportion of people in the younger age groups is decreasing relative to the older age groups, as fewer children are being born while older people live longer. The change in Malaysia's population structure is projected to be even more pronounced in the future, as demonstrated by Chart 93, which shows that in 2035, Malaysia's population structure will bulge towards the middle as there will be more individuals in the older age groups compared to the younger age groups.

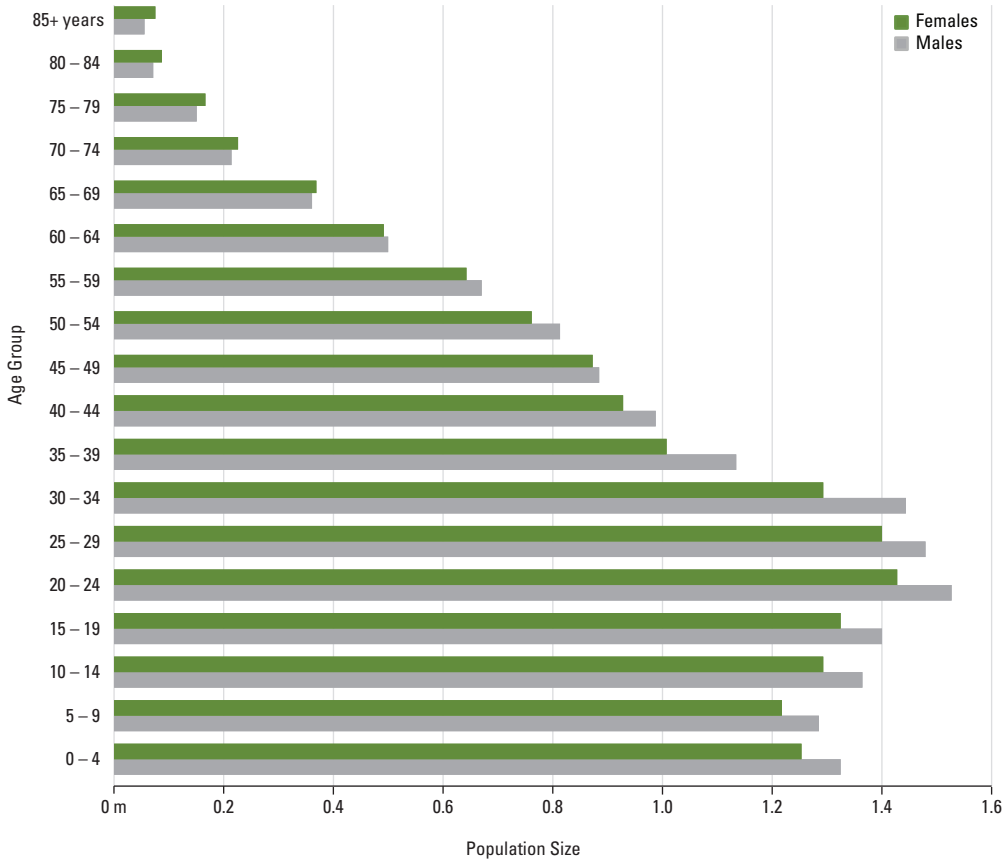
Malaysia's population structure is bulging upwards

Chart 91: Malaysia's population structure in 2000



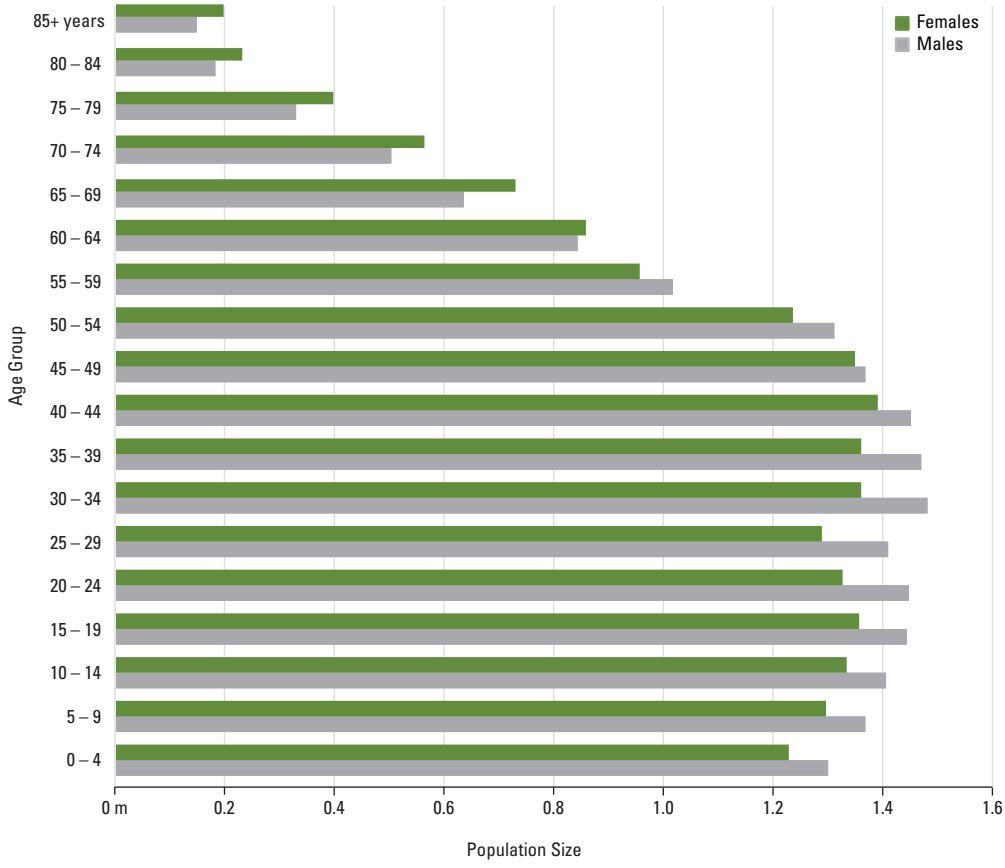
Source: DOS (n.d.c)

Chart 92: Malaysia's population structure in 2015



Source: DOS (n.d.c)

Chart 93: Malaysia's population structure in 2035



Source: DOS (n.d.c)

Implications of population ageing

As can be seen from the population structures, one of the defining traits of population ageing is that there are more people in the older age groups. This is partly as a result of longer life expectancy, which is generally considered to be a positive outcome; after all, keeping people living for longer is one of the main purposes of medicine. However, when coupled with a decreased fertility rate, this raises some concern over the potential socioeconomic implications of an ageing population.

Such concerns include the loss of our demographic dividend and the increased financial pressure on the healthcare system.

The end of the demographic dividend?

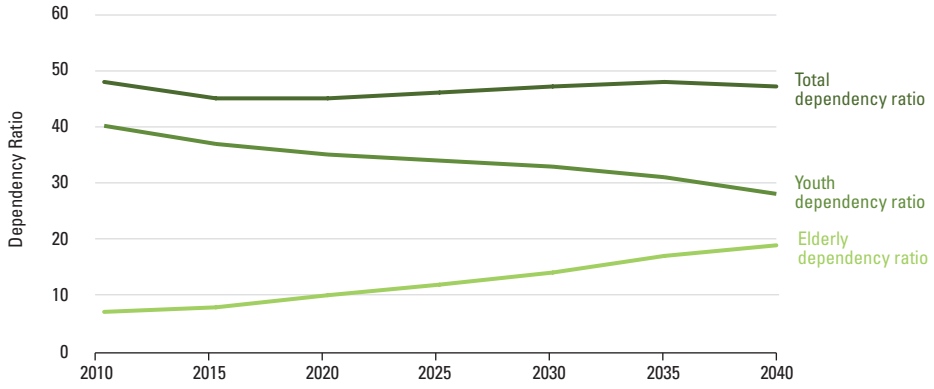
In general, as a country becomes more industrialised, there is a tendency for it to experience an occurrence known as a 'demographic transition'. This describes a phenomenon whereby a population shifts from being a predominantly rural agriculture-based society with high fertility and high mortality rates to a more urban industrial-based society with lower fertility and lower mortality rates[71]. In the early decades where the transition is taking place, birth rates continue to remain high while mortality rates decrease. As such, the number of people of working age (between the ages of 15 and 64) temporarily grows while the number of people who are dependent on the workforce shrinks. During this period, the country may experience a 'demographic dividend', where there may be greater economic growth and productivity as the share of the productive population (ie the working age population) exceeds the share of the non-productive population (ie the non-working age population)[72].

71 Lee and Mason (2006)
72 UNFPA (n.d.)

The share of the working age population compared to the share of the non-working age population is commonly referred to as the total dependency ratio (TDR). In 2015, Malaysia's TDR was at 45%, which signifies that there were 45 dependents for every 100 working-age individuals. Chart 94 shows that Malaysia's TDR is set to remain relatively constant for the next few decades, as falling fertility rates means that the youth dependency ratio[73] is projected to offset the rise in the elderly dependency ratio[74]. However, as Malaysia continues to progress in its demographic transition, the TDR will rise as the share of the elderly population grows in comparison to the younger population, thus resulting in the end of the demographic dividend.

Unpacking the TDR

Chart 94: The dependency ratios for the Malaysian population, 2010 – 2040



Note: These are based on population estimates by DOS.
Source: DOS (n.d.c)

73 The youth dependency ratio refers to the share of those under 15 years old compared to the share of the working age population.

74 The elderly dependency ratio refers to the share of those over the age of 64 compared to the share of the working age population.

A high TDR would indicate that the productive population faces a greater burden to provide for the needs of the non-productive population. As the population ages and the fertility rate declines, the elderly dependency ratio increases while the productive population shrinks. Thus, at this stage, the productive population faces increasing pressures in supporting the needs of the elderly, non-productive population.

It is worth noting that there are many limitations to using the dependency ratio. One of the criticisms that has been put forward is that its assumptions are not necessarily accurate. For example, the dependency ratio by definition assumes that all those who are aged over 64 are dependent, which may not necessarily be true. Likewise, it may also be inaccurate to assume that all those of working age are independent.

Increased financial pressure on the healthcare system

An ageing society may also exert financial pressure on the healthcare system. To date, healthcare systems have focused on getting people to live longer; less focus has been placed on getting people to live longer well. Although deaths due to infectious diseases have declined in recent decades, there has been a rise in the number of people living with chronic non-communicable diseases such as hypertension and cancer. In addition, diseases of the circulatory (including heart disease) and respiratory (including lung cancer) systems caused almost half of the deaths in Malaysian hospitals in 2013[75]. Apart from being associated with old age, they are also associated with high cost of care, as they tend to require life-long treatment. For example, a study conducted by the Economist Intelligence Unit (EIU) looking into the trends in cancer cases globally estimated that there were 13m new cancer cases worldwide in 2009, with a minimum associated cost of USD286b, of which Asia accounted for 15%[76]. Thus, a higher number of older individuals may put additional financial pressure on the health system, government finances, and the national economy.

[75] MOH (2014a)
[76] EIU (2009)

Options for policy responses

There are several options for short term and long term policy responses to the challenges of an ageing population, which merit further study.

Redefining old age

Malaysia may soon find it necessary to reconsider what is defined as old age, particularly retirement age, taking into account the longer life expectancies. As of 2013, the minimum retirement age in Malaysia was set at 60 years old, which was increased from the previous 55 years[77]. As we continue to see longer life expectancies, it may be prudent to further increase the minimum retirement age. For example, Japan, a country that is facing advanced population ageing, introduced the Act on the Stabilisation of Employment of Elderly Persons 2012. This Act requires employers to implement one of the following: (a) increase the minimum retirement age from 60 to 65; (b) provide employees with the option to continue working until the age of 65; or (c) abolish the mandatory retirement age at firm level[78]. In Greece and Norway, countries that are also facing advanced population ageing, the mandatory retirement age is set at 67 years[79]. While Malaysia may not yet follow in the footsteps of the Greeks and the Norwegians, the Japanese approach might be a suitable model for Malaysia to consider adopting in the future.

Ensuring the financial sustainability of old age

Reducing the financial burden faced by older age groups may require a number of reforms. Some options for reforms are:

- Develop annuities, issued either by the public or private sector, which guarantee inflation-adjusted income throughout a person's life. Like insurance, longevity risk will then be spread over many people; and
- Develop reverse mortgages or similar products, so that people can draw against the equity in their property.

77 MOHR (n.d.)
78 World Bank (2016a)
79 O'Dempsey and Beale (2011)

Both of these options require adequate consumer protection laws and regulations and a supervisory authority. Unfortunately, these options would only work if people have enough savings to begin with, so that they could buy the annuity or property. Thus, ultimately, there is still a need to increase incomes, as discussed earlier in this report.

In the meantime, to ensure that the existing retired population is cared for, it may be necessary to provide social protection through safety net programmes targeted to the older and poorer population. One form of such a programme would be means-tested government transfers to retirees. Singapore, for example, has introduced the Silver Support Scheme, which aims to supplement the incomes of the low-income elderly, targeting those at the bottom 20% of Singaporeans aged 65 and above[80]. Malaysia may also consider developing a similar programme to support its retired population.

Reorienting the health system towards strengthening preventative health measures

As described previously, we are facing higher burdens of non-communicable diseases, which incur high medical cost, particularly for chronic conditions such as hypertension and diabetes; the burden is likely to become greater with increasing proportions of older age groups. To address this issue, Malaysia may need to reorient the healthcare system towards a more public health approach with greater focus on implementing preventative health measures, as opposed to a hospital-centric approach which is focused on curative care. For example, measures focusing on encouraging healthier lifestyles may reduce the burden of non-communicable diseases. Such measures would ensure that the population lives not only longer but lives longer in good health.

[80] MOM (n.d.)

Other policy considerations: balancing between the needs of the elderly and the needs of the youth

Some of the policy responses to address the needs of the growing elderly population may come at the expense of the younger populations. For example, while increasing the retirement age may allow an older individual to earn an income for longer, it may result in one fewer potential job for a younger person, thus exacerbating existing youth unemployment concerns. On the other hand, it is worth noting that in OECD countries, it has been observed that prolonging the older population's participation in the workforce does not necessarily have a negative effect on the younger people's employment. However, the impact of higher elderly employment rates on youth unemployment in developing Asian countries are not yet known[81].

Similarly, some may raise the question of "fairness" in terms of diverting government funding to meet the needs of specific age groups away from others. For example, while providing social safety net programmes to help financially support poor individuals in the older age groups may have obvious benefits, the funds used for such a programme perhaps could have been used to finance education for the younger age groups instead. Should the government prioritise the needs of one age group over another, and if so, how?

81 World Bank (2016a)

CONCLUSION

CONCLUSION

Household incomes expanded impressively between the 2012 HIS and the 2014 HIS, with both average and median household incomes growing faster than GDP per person during the same period. The progress in household incomes in turn drove the reduction in the poverty rate, which in 2014 stood at 0.6% compared to 1.7% in 2012. More significantly, hardcore poverty has very nearly been eradicated. The expansion in household incomes was also accompanied by improvements in income distribution, leading to a reduction in the Gini coefficient, signifying that Malaysia's income distribution has become more equal.

On the other hand, growth in household incomes did not seem to be driven by an accompanying expansion in salaries and wages, from which more than 60% of household incomes are sourced. In addition, paid employment fell as a source of income for the top 60% of households, which have become slightly more reliant on income from current transfers as well as property and investments. The latter may have expanded due to rising valuations in housing prices, thereby potentially overestimating incomes due to imputed rent. Nonetheless, in order to draw conclusions regarding the drivers of household incomes, analysis of more detailed data is required than what is currently publicly available from the HIS. Such an investigation would also be useful in examining the impact of current transfers such as BR1M on household incomes, given that BR1M receipts were included in the calculation of household incomes for the first time in the 2014 HIS.

The availability of more granular statistics would also be useful in analysing the relationship between household income and expenditure, savings, and debt. Currently, the HES does not take into account instalment payments on loans, including those for housing and automobiles. Improvements in household incomes have not translated into stronger financial security, as Malaysian households remain highly indebted, with low savings. Predictably, it is lower income households that are the most financially insecure.

Lower-income households, which spend proportionately more of their income on food compared to those with higher incomes, are also less able to afford nutritious food. Food in Malaysia continues to be more expensive, belying in some cases, trends in global food prices. There are also instances where anomalies in the prices of certain food items such as vegetables, milk, and chicken, indicate that further investigations into the structure and competitive practices of the markets for these foods are warranted.

Meanwhile, the stagnation in salaries and wage growth—which only grew by 1% in real terms between 2012 and 2014 (at CAGR)—may be explained by relatively low labour productivity growth, which has trended below wage growth over the past five years. Indeed, the stagnation in wage growth could negatively affect household incomes in the run-up to the next HIS, scheduled for 2016. Households may also see reductions in their incomes in the future, should the unemployment rate worsen in the face of falling commodities prices and continuingly dismal global economic environment.

In the longer term, one of the impending challenges for Malaysian households is the ageing population, due to the effect of longer life expectancies in addition to decreasing fertility rates. Population ageing poses a challenge to the Malaysian economy in terms of the end of the demographic dividend, but also for Malaysian households, which on the whole may not be able to afford longer life expectancies without policy interventions. Options for such measures may include redefining the age of retirement (which needs to be counterbalanced with considerations for the overall employment structure), financial reforms to ensure financial sustainability into old age, and reorienting the health system towards preventative rather than curative measures to reduce potential financial pressure on the system.

Hence, while Malaysian households have benefited significantly from the nation's relatively robust economic growth, developments since 2014—in addition to longer term challenges—suggest that safeguarding the well-being of its households require significant structural measures.

APPENDICES & REFERENCES

APPENDICES

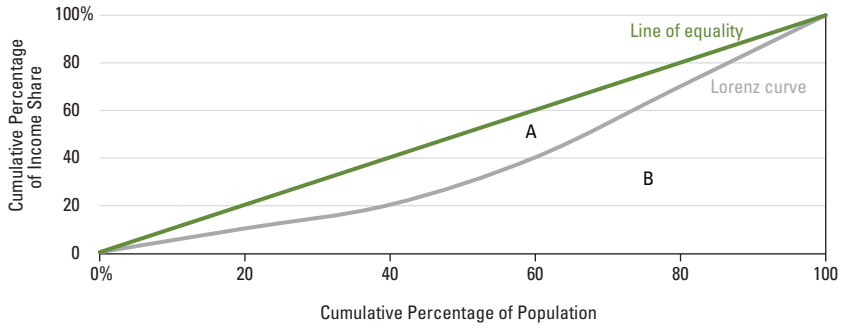
APPENDIX I:

MEASURING INEQUALITY THROUGH THE GINI COEFFICIENT

There are a number of measures of income inequality. One of the most widely used is the Gini coefficient[82]. The Gini coefficient ranges from 0, which indicates total equality, to 1, which reflects total inequality[83]. The Gini coefficient can be represented graphically, as in Chart 95, The Lorenz curve graphs the cumulative percentage of income share on the y-axis against the cumulative percentage of population on the x-axis. Referring to the chart, the Lorenz curve shows that 20.0% of the population owns 10.0% of total income. Meanwhile, the line of equality indicates the income distribution curve if each person had the same income.

The Gini coefficient is calculated from dividing area A, which is the gap between the line of equality and the Lorenz curve, by the sum of areas A and B, which is the gap between the line of equality and the x-axis.

Chart 95: Graphical representation of the Gini coefficient



Source: World Bank (n.d.)

If each person had the same income, the Lorenz curve and the line of equality would merge, resulting in a Gini coefficient of zero. If one individual receives all the income, the Lorenz curve would be flat up to the x-value of 100.0%, whereby the y-value would also be 100.0%. Areas A and B would be similar, resulting in a Gini coefficient of one.

It should be noted that according to DOS, the Gini coefficient can be presented as a percentage. For example, 0.382 is equivalent to 38.2%[84].

82 World Bank (n.d.)
83 Ibid.
84 DOS (2015e)

APPENDIX 2:

COST OF NUTRITIOUS FOOD

A discussion on household incomes and food prices brings into question the affordability of a healthy diet: does the average Malaysian household earn enough to follow a diet that meets the recommended nutritional intake?

To answer this question, we estimated the monthly food expenses for a model household to purchase a basket of food items issued by the MOH that conforms to the MDG[85].

The model household is made up of five members, with the same composition as the model household used to calculate the food poverty line income for DOS's 2012 HIS[86]. The recommended daily calorie intakes that reflect the gender and age for the model household's members are shown in Table 16.

Table 16: Household make-up and recommended daily calorie intake

Household member	Recommended daily calorie intake
Adult male (30 – 50 years old)	2,460
Adult female (30 – 50 years old)	2,180
Male child (7 – 9 years old)	1,800
Female child (4 – 6 years old)	1,300
Child (1 – 3 years old)	1,000
Total	**8,740**

Source: MOH (2005) and MOH (2014b)

The MDG-recommended daily servings from each major food group for the household were then used to calculate the quantities of items required for the household's monthly food basket.

85 The calculations do not take into account the cost of transportation or storage and preparation (for example, refrigerators, stoves, gas). It is also assumed that the household only consumes food prepared at home, and there is no additional spending on condiments, snacks, and other food items.

86 EPU (2012)

APPENDIX 2:
COST OF NUTRITIOUS FOOD

The price of the food basket in seven cities across the country was sourced from the MDTCC's *1Pengguna* website, which lists prices by state and locale. Because the objective is to determine the lowest price for the food basket, in instances of multiple prices listed from the same locale, the lowest price of each food item was chosen for our calculations. Table 17 shows the monthly and daily food basket for the average household. All items in the food basket are in accordance with the Recommended Dietary Allowance (RDA) provided in the MDG, apart from onions and cooking oil, which, for the purposes of this report, we consider necessary for cooking.

Table 17: Monthly food basket per household

Food item	Monthly quantity per household	Daily quantity per household
Rice	25.0 kg	800 g
Bread	300 slices	10 slices
Chicken	9.5 kg	312.5 g (around 0.25 of a chicken)
Eggs	150 eggs	5 eggs
Fish	16.2 kg	540 g (around 5 *kembung*)
Legumes	30 kg	1 kg (eg dhal)
Milk	2.3 kg	77 g powdered milk
Fruit	47.7 kg	1.6 kg (eg papaya)
Vegetables	35.1 kg	1.2 kg (eg *kangkung*)
Cooking oil	5.0 kg	160 g
Onions	6.0 kg	Around 2 onions

Source: KRI calculations

APPENDIX 3:

MEASURING GROSS HOUSEHOLD SAVINGS AS A PERCENTAGE OF ADJUSTED DISPOSABLE INCOME

Household savings is an important measurement of household well-being. For this report, the proportion of gross household savings to adjusted disposable income was calculated using the following formula:

$$\text{Gross household savings as a percentage of household income} = \frac{\text{Gross savings}}{\text{Adjusted disposable income}}$$

According to DOS' Distribution and Use of Income Accounts and Capital Accounts 2013, disposable income (income for final consumption expenditure and saving) is transformed to adjusted disposable income by the receipt and payment of social transfers in kind including social benefits. Social transfers in kind include transfers of individual non-market goods and services produced for resident households by the government sector and non-profit institutions serving households (NPISHs) and social benefits in kind.

Gross savings is calculated by deducting actual final consumption from adjusted disposable income, after adjusting for pension funds. This adjustment indicates that contributions to pension funds such as the EPF have been captured.

Using data from DOS' Distribution and Use of Income Accounts and Capital Accounts 2013, gross household savings as a percentage of household income was calculated. The adjusted disposable income for NPISHs in 2013 was RM543,681m. To calculate gross savings, the positive net change in net equity of households on pension funds (+RM38,178m) was added and the actual final consumption (–RM574,229m) was deducted, resulting in gross savings of RM7,629m. Using the formula above, the gross household savings as a percentage of household income in 2013 was 1.4%.

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