

# Malaysia Economic Monitor Towards a Middle-Class Society

DECEMBER 2014

Public Disclosure Authorized

Public Disclosure Authorized

Public Disclosure Authorized





# MALAYSIA ECONOMIC MONITOR

## DECEMBER 2014

### TOWARDS A MIDDLE-CLASS SOCIETY

**Southeast Asia Country Management Unit**  
**Country Director: Ulrich Zachau**  
**Chief Economist: Sudhir Shetty**

**Comments to:**  
**Mathew A. Verghis**  
mverghis@worldbank.org  
**Frederico Gil Sander**  
fgilsander@worldbank.org

30<sup>th</sup> Floor, Siam Tower  
989 Rama I Road, Pathumwan  
Bangkok 10330, Thailand  
+66 (0) 2 686-8300  
[www.worldbank.org/my](http://www.worldbank.org/my)

#### Acknowledgements

This edition of the Malaysia Economic Monitor was prepared by Frederico Gil Sander (task team leader), Truman Packard, Ririn Salwa Purnamasari, Mauro Testaverde, Konstantin M. Wacker, Wei Aun Yap and Pui Shen Yoong, under the overall guidance of Ulrich Zachau, Sudhir Shetty, Shubham Chaudhuri and Mathew Verghis. Outstanding research assistance was provided by Marife Lou Bacate and Theepakorn Jithitikulchai. The team wishes to thank Ulrich Zachau, Mathew Verghis, Philip O'Keefe, Mark Dorfman, Ekaterine Vashakmadze and Nikola Spatafora for helpful comments, suggestions and guidance.

This report benefited from fruitful discussions, comments, and information from various sections of the Economic Planning Unit in the Prime Minister's Department, the Economics Department of Bank Negara Malaysia, the Department of Statistics Malaysia, the Ministry of Finance, the Ministry of International Trade and Industry, the Performance Management and Delivery Unit (PEMANDU), TalentCorp, Khazanah Research Institute, and other Government ministries and agencies. We also thank representatives from the Federation of Malaysian Manufacturers, the American Malaysian Chamber of Commerce, and analysts at several financial and rating institutions for helpful discussions. We wish to especially thank the EPU and the Department of Statistics for providing the preliminary data of the 2014 Household Income Survey.

We are indebted to the International Cooperation Section of Economic Planning Unit for their ongoing collaboration with the World Bank and in particular their extensive support in the launch of this report.

Paul Riskey, Anne Elicaño and Trinn Suwannapha provided excellent assistance in external relations and web production, Quo designed the cover, and Pimon Iamsripong and Angkanee Luangpenthong provided additional support.

Photo credits: Ladies buying food, tire shop assistant, and the family taking photo: Nafise Motlaq. Indian shopkeeper: Trinn ('Pong) Suwannapha.

The findings, interpretations, and conclusions expressed in this report do not necessarily reflect the views of the Executive Directors of The World Bank or the governments they represent. The report is based on information current as of December 10, 2014.

## ABBREVIATIONS

AER	American Economic Review
ALMP	Active labor market programs
ASEAN	Association of Southeast Asian Nation
BB1M	1Malaysia Book Voucher Scheme
BIS	Bank for International Settlements
BNM	Bank Negara Malaysia
BOP	Balance of payments
BOT	Bantuan Orang Tua
BR1M	Bantuan Rakyat 1Malaysia
CA	Current account
CISS	Composite Indicator of Systemic Stress
CoE	Compensation of employees
CSPS	Civil service pension scheme
DECPEG	Development Economics Research Prospects Group
DOSM	Department of Statistics Malaysia
DSW	Department of Social Welfare
E&E	Electrical and electronics
ECB	European Central Bank
EIA	Energy Information Administration
EMEs	Emerging Market Economies
EPF	Employee Provident Fund
EPU	Economic Planning Unit
ETP	Economic Transformation Programme
EU	European Union
FBM	FTSE Bursa Malaysia
FDI	Foreign direct investments
G&S	Goods and Services
GDP	Gross Domestic Product
GE	Generalized Entropy (see Annex 1)
GEMS	Graduate Employability Management
GFCF	Gross fixed capital formation
GIC	Growth Incidence Curve
GLCs	Government-Linked Companies
GNI	Gross national income
GOS	Gross Operating Surplus
GST	Goods and services tax
GTP	Government Transformation Program
HIS	Household Income Survey
HoH	Head of Household
ICT	Information and computing technology
ICU	Implementation and Coordination Unit
IEA	International Energy Agency
IFS	International Finance Statistics
IIF	Institute of International Finance
ILMIA	Institute for Labor Markets Information and Analysis
ILO	International Labour Organization
IMF	International Monetary Fund
IT	Information Technology
KLCI	Kuala Lumpur Composite Index
LEDs	Light-Emitting Displays
LICO	Low-Income Cut-Offs
LIM	Low Income Measures
LNG	Liquefied natural gas
LPG	Liquefied Petroleum Gas
MAC	Migration Advisory Committee
MBM	Market Basket Measure
MENA	Middle-East and North Africa
MGS	Malaysian Government Securities
MOF	Ministry of Finance
MoHE	Ministry of Higher Education
MOPS	Mean of Platts Singapore
MRT	Mass Rapid Transit
MWFCD	Ministry of Women, Families and Community Development
NBER	National Bureau of Economic Research
NBER	National Bureau for Economic Research

NEM	New Economic Model
NEP	New Economic Policy
NFPE	Non-Financial Public Enterprise
NGOs	Non-Governmental Organizations
NKEA	National Key Economic Area
NKRA	National Key Result Area
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum-Exporting Countries
OPR	Overnight Policy Rate
PDS	Private debt securities
PEMANDU	Performance Management and Delivery Unit
PISA	Programme for International Student Assessments
PITA	Petroleum Income Tax Act
PL	Poverty line
PMI	Purchasing Manager's Index
PMT	Proxy Means Test
PPI	Producer price index
PPP	Purchasing power parity
PRS	Private retirement schemes
R&D	Research and Development
RAPID	Refinery and Integrated Petrochemical Integrated Development
REP	Returning Expert Programme
RP-T	Resident Pass - Talent
SI	Social insurance
SME	Small and Medium Enterprises
SOC	Standard Occupational Classification
SOCSO	Social Security Organisation
SP	social protection
SPM	Sijil Pelajaran Malaysia
TFP	Total Factor Productivity
TVET	Technical and Vocational Education and Training
UK	United Kingdom
UNDP	United Nations Development Programme
UNESCO	United Nation Educational, Social and Cultural Organization
UPENA	Unit Penerbitan UiTM
US	United States
WDI	World Development Indicators
WHO	World Health Organization
WVS	World Values Survey

## TABLE OF CONTENTS

<b>Executive Summary</b> .....	<b>1</b>
<b>The Malaysian Economy in Pictures</b> .....	<b>3</b>
<b>Towards a Middle-Class Society in Pictures</b> .....	<b>4</b>
<b>1. Recent Economic Developments and Outlook</b> .....	<b>5</b>
Malaysia's economy continued to expand, led by domestic drivers .....	5
A softer tone in the external sector .....	5
The expansion in exports continued but lost some momentum .....	5
The current account surplus narrowed on weak exports and higher factor payments .....	6
The domestic economy remained robust .....	7
Equipment investment retreated, but construction and private consumption continued to expand .....	7
Strong labor markets support household consumption .....	8
Inflation edges up on higher administered prices but few signs of second-round effects .....	9
Fiscal policy in consolidation mode .....	10
Stable financial conditions despite external uncertainties .....	11
Monetary policy remains supportive of growth while watchful of imbalances .....	11
Credit growth decelerates, but housing loan growth remains steady .....	12
External flows experienced greater volatility .....	13
Near-term outlook remains positive despite tightening domestic and external conditions .....	14
Uneven global recovery constrains growth momentum .....	16
Domestic demand slows but remains a key driver of growth .....	17
Lower oil prices pose opportunities and risks to fiscal consolidation .....	18
Risks to the outlook have increased .....	19
<b>2. Selected Issue Notes</b> .....	<b>20</b>
A. Implications of lower oil prices for Malaysia's economy .....	20
Oil prices unlikely to recover significantly .....	20
Muted impact on the current account .....	22
Fiscal impact positive – if prices do not fall further .....	23
B. Flows and ebbs: capital flows to Malaysia and their macro-financial implications.....	26
Fickle capital flows pose policy challenges.....	26
Capital inflows are linked, if weakly, to higher prices for certain asset classes.....	27
If capital flows reverse, risk of asset price under-shooting gives rise to financial risks .....	28
Historically, periods of financial volatility in Malaysia were externally-driven .....	29
Systemic stress was preceded by high capital inflows and recently coincided with FX volatility .....	30
New challenges to the macro policy toolkit emerge in a changing global environment .....	32
C. Informing and prioritizing Malaysia's skills investments: Lessons from REP and RP-T.....	34
Skills deficits and labor imbalances stand in the way of Malaysia achieving its development goals .....	34
The lack of interaction between the supply and demand of labor perpetuates skills deficits .....	35
Attracting talent from abroad can help Malaysia meet its labor market needs .....	36
Skills development policies should be better informed by the demands of the economy .....	39
<b>3. Towards a Middle-Class Society</b> .....	<b>41</b>
From middle-income country to middle-class society .....	41
Moving towards a middle-class society goes hand-in-hand with reducing inequality.....	42
Reducing inequality is beneficial in its own right, but also good for growth .....	43
Despite significant progress, income inequality in Malaysia remains a challenge .....	44
Income-based policies are likely to have the largest impact on inequality .....	45
Which groups should be targeted? .....	46
The poor, while shrinking in number, remain the priority.....	48
Vulnerability to poverty is also limited and declining.....	53
A large segment of the population aspires to join the middle class .....	56
What will it take for aspirational households to join the middle class? .....	62
Increasing opportunities for higher incomes from work is the key .....	62
Expanding non-labor incomes can also play a useful role .....	72
Policy options to fulfil aspirations of joining the middle class .....	76
Boosting opportunities of income gains for the aspirational group .....	76
Enhancing the social protection system.....	79
...financed through more progressive taxation .....	84
<b>Appendix 1: Glossary</b> .....	<b>87</b>
<b>Appendix 2: Summary Statistics</b> .....	<b>88</b>
<b>References</b> .....	<b>89</b>

## BOXES

Box 1. Econometric analysis of systemic risk and capital inflows .....	31
Box 2. The Returning Expert Programme .....	38
Box 3. The Residence Pass-Talent Programme .....	38
Box 4: Using data on critical skills shortages to improve the selection procedures for REP and RP-T .....	39
Box 5: The Migration Advisory Committee's Skills Shortages List .....	40
Box 6. Perceptions of class and inequality: the World Values Survey & the Pew Global Attitudes Survey .....	45
Box 7: The Bottom 40 percent .....	48
Box 8. Should poverty in Malaysia be redefined? .....	51
Box 9: Definitions of vulnerability .....	53
Box 10. Adjusting factor shares of income .....	65
Box 11. 1AZAM – Income generation for low income households.....	81

## FIGURES

Figure 1. GDP growth slowed in the third quarter... ..	5
Figure 2. ... a pattern common to other ASEAN countries linked to slower growth in China and the US. ....	5
Figure 3. Commodity exports to China plunged while high-tech grew at a slower pace across destinations.....	6
Figure 4. The contribution from processed commodities and high-tech manufacturing declined .....	6
Figure 5. The commodity balance has been stable... ..	7
Figure 6. ... while the non-commodity balance decline was broad-based.....	7
Figure 7. The investment-to-GDP ratio stabilized in late 2013 after rising sharply in 2012.....	8
Figure 8. High income growth rate among lower-income households has supported consumption growth.....	8
Figure 9. The unemployment rate declined even as the labor force participation stabilized .....	8
Figure 10. Employment and wage growth has been in positive territory for most of 2014.....	8
Figure 11. Core inflation increased, but stabilized at around 2 percent in 2014.....	9
Figure 12. Benign supply conditions supported price moderation amid a growing output gap.....	9
Figure 13. Spending on personnel is expected to exceed the budget by less than in previous years.....	10
Figure 14. The dependency on oil-related revenues has declined .....	10
Figure 15. Real policy rates turned negative in early 2014.....	11
Figure 16. Loans expanded faster than deposits in 2014.....	11
Figure 17. Household loan growth held steady along with credit for housing and auto purchases.....	12
Figure 18. Growth in working capital loans picked up again in 2014.....	12
Figure 19. Foreigners sold Malaysian debt and equities into the fourth quarter after large purchases earlier .....	13
Figure 20. The financial account posted a negative balance in the third quarter due to portfolio outflows.....	13
Figure 21. Against main reference currencies, the Ringgit still performed relatively well .....	14
Figure 22. Reserves are declining, but remain above the levels prior to the Eurozone crisis .....	14
Figure 23. Forecasts for 2015 take into account the impact of the recent decline in oil prices .....	15
Figure 24. Inflation is expected to pick up slightly in 2015 before moderating down in 2016.....	15
Figure 25. The PMIs of the US and other G3 economies diverge in 2014 .....	16
Figure 26. World trade volumes are not expected to return to pre-crisis levels in the medium-term.....	16
Figure 27. The current account is expected to remain in surplus.....	17
Figure 28. The federal balance is expected to improve.....	18
Figure 29. Debt levels are expected to decline in 2014.....	18
Figure 30. Oil prices have been declining since June, and plummeted since October .....	20
Figure 31. Capital expenditure in the energy sector is up five-fold since 2000 .....	20
Figure 32. Shale oil production in the US has picked up and is projected to increase further in the next few years.....	20
Figure 33. The United States has emerged as the world's largest oil producer .....	20
Figure 34. Oil production is expected to exceed demand for the second consecutive year in 2015 .....	21
Figure 35. LNG prices tend to lag crude oil prices by five months.....	21
Figure 36. The trade balance in LNG is a key contributor to the current account .....	22
Figure 37. The price of palm oil has been correlated to that of crude oil and the palm oil trade balance .....	22
Figure 38. Components of the automatic pricing mechanism for RON95 in Peninsular Malaysia.....	23
Figure 39. Retail and market prices of fuel in Malaysia.....	23
Figure 40. Estimated share of PETRONAS profits and operating cash flow paid as dividends to the budget .....	24
Figure 41. Capital flows in Malaysia are on the high side of the EME-spectrum .....	26
Figure 42. Malaysian Ringgit at lowest level since February 2010 amid global portfolio re-allocations.....	26
Figure 43. House prices have increased the most among Asian countries since 2011 .....	27
Figure 44. Correlation and spread between MGS and AAA securities (5-year maturity).....	27
Figure 45. Financial volatility is high amid major global events .....	29
Figure 46. Correlation of volatility across market segments shifted .....	29
Figure 47. Systemic stress rises in quarters after large capital inflows .....	31

Figure 48. Systemic stress coincides with high FX volatility .....	31
Figure 49. The demand for labor has steadily increased .....	34
Figure 50. More workers are needed at every level of the skills spectrum .....	34
Figure 51. The labor force is becoming increasingly educated... ..	35
Figure 52. ...yet finding people with the right skills remains a challenge for firms.....	35
Figure 53: Foreign labor is steadily increasing in many developed countries.....	36
Figure 54. Most foreign labor in Malaysia is low-skilled .....	36
Figure 55. Career opportunities motivate the decision of REP applicants to relocate .....	38
Figure 56. REP applicants maintain strong professional and financial ties to their home country .....	38
Figure 57. Incomes at the bottom of the income distribution grew faster than those at the top... ..	41
Figure 58. ... leading to a reduction in inequality between 2004 and 2014. ....	41
Figure 59. Relative incomes of the Bumiputera group have been rising, though some gaps remain .....	44
Figure 60. With the exception of a few periods, growth patterns have been similarly high across groups .....	44
Figure 61. Inequality in Malaysia is lower than in other Asian countries, but higher than in advanced economies .....	44
Figure 62. Most Malaysians consider inequality a 'big problem' .....	44
Figure 63. Inequality between ethnic groups only accounts for 5 percent of overall inequality.....	46
Figure 64. The Bumiputera group is still over-represented among the poor and vulnerable groups .....	46
Figure 65. Income Distribution with Poverty, Vulnerability and the Aspirational thresholds.....	47
Figure 66. The poverty rate declined while incomes increased... ..	49
Figure 67. ... across all areas and ethnicities. ....	49
Figure 68. Pockets of poverty remain across geographical areas and socio-economic status .....	49
Figure 69. Limited access to quality housing, treated drinking water, and sanitation .....	50
Figure 70. Over 40 percent of students in rural areas live more than 5km away from the nearest secondary school. ...	51
Figure 71. Poverty Headcount index (2009) using different poverty lines .....	52
Figure 72. The relative poor face fewer deprivations compared to the poor .....	52
Figure 73. Relative poverty is highly correlated with inequality measures .....	52
Figure 74. The share of the population below 50 percent of the median has oscillated... ..	55
Figure 75. ... whereas the number of poor and vulnerable households has consistently declined .....	55
Figure 76. Incidence of vulnerability across geographical areas and socio-economic status.....	55
Figure 77. More than a quarter of vulnerable households are deprived on at least one dimension.....	56
Figure 78. Many vulnerable households face difficulties accessing basic health and education facilities .....	56
Figure 79. Malaysians tend to be relatively less satisfied with their financial position... ..	57
Figure 80. ... and are less likely to include themselves in the middle class.....	57
Figure 81. Most households have access to amenities that would be considered luxuries in other countries.....	58
Figure 82. Those who do not regard themselves as middle-class are less satisfied with their finances.....	58
Figure 83. A majority only of each of the top three deciles considers themselves middle-class. ....	59
Figure 84. Half of those who consider themselves middle-class are in the top 40 percent. ....	59
Figure 85. The share of the aspirational households is increasing and is now the largest group in society .....	59
Figure 86. Most aspirational households live in urban areas in Peninsular Malaysia .....	59
Figure 87. Post-secondary education is a key difference between the middle-class and aspirational groups .....	60
Figure 88. 83 percent of those holding a bachelor's or post-graduate degree are in the middle- or upper-class .....	60
Figure 89. Aspirational households are smaller. ....	60
Figure 90. Dependency ratio decreases with income .....	60
Figure 91. Most heads of aspirational households work in the services sector .....	61
Figure 92. Secondary schooling translates into more stable employment opportunities .....	61
Figure 93. Most aspirational households have good access to basic amenities and facilities .....	62
Figure 94. Ownership of material assets is high, and access to information/technology is more sophisticated .....	62
Figure 95. Changes in the labor share are correlated with changes in inequality .....	63
Figure 96. Compensation of employees has been increasing in Malaysia .....	63
Figure 97. Compensation of Employees, adjusting for income of the self-employed is higher... ..	63
Figure 98.... but remains lower than most high and even middle-income countries.....	63
Figure 99. There are significant differences in labor shares across sectors.....	64
Figure 100. Knowledge-intensive services pay higher wages and have higher labor shares.....	64
Figure 101. Tertiary-educated workers command middle-class wages .....	66
Figure 102. Wages of degree holders place them well into the middle-class .....	66
Figure 103. Educational attainment varies less by ethnicity... ..	66
Figure 104. ... than by socioeconomic status – especially at post-secondary levels .....	66
Figure 105. Speakers of Bahasa Malaysia perform slightly better than non-Bahasa speakers .....	67
Figure 106. Students in the top quintile perform significantly better than those in the bottom 60 percent .....	67
Figure 107. Significant disparities in educational attainment remain... ..	68
Figure 108. ... even after adjusting for household wealth .....	68



Figure 109. Over 40 percent of the bottom 60 percent would earn a Bachelor's degree...	69
Figure 110. ... if all background factors could be equalized across income groups.....	69
Figure 111. Microenterprises are four times less likely to obtain funding from commercial banks.....	72
Figure 112. Only a third of Malaysians think that they have the capabilities to start a new business .....	72
Figure 113. Most aspirational households have financial assets.....	73
Figure 114. Home ownership is high, and households across income groups own real estate wealth .....	73
Figure 115. Aspirational households have more assets than vulnerable households, but balances are low .....	73
Figure 116. Over 80 percent of EPF members have less than RM75,000 in savings.....	73
Figure 117. BR1M reaches over 90 percent of the vulnerable group .....	75
Figure 118. BR1M and welfare payments are highly progressive .....	75
Figure 119. Government income transfers reduce poverty in Malaysia .....	75
Figure 120. Raising the quality of all Malaysian schools to the 30 <sup>th</sup> percentile of Korea or Singapore would significantly improve quality.....	77
Figure 121. More schools need to be moved to Band 1 and 2, and quality standards need to be continuously elevated .....	77
Figure 122. Malaysia's pre-tax and transfer Gini coefficient is lower than Germany's.....	84
Figure 123. ... but after tax and transfers Malaysia's Gini coefficient is little changed, while Germany's drops .....	84
Figure 124. Government transfers reach many households... ..	85
Figure 125. ...reducing inequality along with income taxes .....	85
Figure 126. Malaysia's pre-tax and transfer Gini coefficient is the same as Sweden's. ....	86
Figure 127. Despite already-low taxes, Malaysians believe lower taxes will reduce inequality. ....	86

## TABLES

Table 1. GDP growth is expected to be maintained in 2014 and beyond.....	15
Table 2. ...as exports compensate for weaker domestic demand in the near term .....	15
Table 3. Analysis of the impact of lower oil prices on the fiscal position.....	24
Table 4. Probit model for systemic risk .....	32
Table 5. Malaysians in OECD countries by educational level in 1990, 2000 and 2010 .....	37
Table 6. Example of a skills shortages list.....	40
Table 7. The Poor, Vulnerable, Aspirational, and Middle- and Upper-Class households.....	47
Table 8. Selected examples of practical approaches to measuring vulnerability .....	54
Table 9. Simulations of vulnerability to poverty using price and income shocks .....	54
Table 10. Wealth-related gaps in educational attainment among 25-29 year old education completers, 2012.....	67
Table 11. Estimated wealth-related gaps in educational attainment for 19-25 year olds, adjusted for short term factors .....	69
Table 12. Estimated wealth-related gaps in educational attainment for 19-25 year olds, adjusted for differences in long-run factors .....	70
Table 13. Selected ordered Probit coefficients .....	70
Table 14. The impact of social transfers on inequality is more limited.....	76
Table 15. Regulatory Reforms to Support SMEs.....	78
Table 16. Incomes included in the analysis .....	85
Table 17. Impact of tax and transfers on the income distribution by income deciles .....	86

## EXECUTIVE SUMMARY

### RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

**Malaysia's economy expanded further in 2014, albeit unevenly.** After a strong performance in the first half of the year, GDP grew by 3.5 percent in the third quarter (q/q saar). Exports lifted growth in the first and second quarters (Q1: 5.0, Q2: 6.1 percent), but failed to maintain momentum in the third (Q3: -10.4 percent). Domestic demand remained a steady driver of growth, contributing almost 2/3 of the growth in the first nine months of the year. Overall, real GDP is expected to grow by 5.7 percent on a year-to-year basis, up from 4.7 percent in 2013.

**Stable labor markets and growing household income supported private consumption.** Despite tighter fiscal and monetary conditions, private consumption remained buoyant, expanding by an average of 9.3 percent in the first nine months of 2014 (q/q saar). Still-robust credit growth and stable employment with continued income growth supported this trend.

**A weaker external environment and lower commodity prices led to a slowdown in export growth.** The decline of crude oil prices that started in June compounded the effect of lower commodity export demand, especially from China. Non-commodity export growth also moderated across all destinations. Electrical and electronics exports registered their smallest expansion in six quarters.

**Growth is projected to slow in 2015.** Export growth is expected to slow further to 4.1 percent in 2015 (2014: 5.4 percent). Investment in oil and gas will slow, and private consumption is also projected to moderate as consumers adjust to higher prices as the goods and services tax (GST) rolls out in April 2015 and credit moderates further. As a result of these factors and the high base in 2014, the forecast for GDP growth in 2015 has been revised to 4.7 percent.

**Lower commodity prices will result in a narrowing of the current account surplus.** Weaker exports and higher factor payments led the current account to narrow to 2.9 percent of GDP in the third quarter. As natural gas prices decline in tandem with crude oil prices and firms import to rebuild inventories, the current account is likely to narrow further to 3.1 percent of GDP in 2015 from 4.2 percent in 2014. Further declines in oil prices would put additional

pressure on the current account. Policy makers should avoid delaying productive investments such as the MRT on this account.

**Under current projections for oil prices, fiscal consolidation is on track, but risks are elevated.** Helped by fuel subsidy cuts, slower growth of personnel expenditures and underspending of the development budget, the government is likely to meet its deficit target of 3.5 percent of GDP in 2014, taking the debt-to-GDP ratio marginally lower to 53.8 percent. The removal of fuel subsidies will help the government save an estimated RM10-12 billion in 2015, offsetting losses from lower oil revenues. But further weakness in oil prices could lead to losses outweighing subsidy savings and pressures for lower dividend payments by PETRONAS, which would put the fiscal targets at risk. Tightly managing expenditures is thus critical in the medium-term.

**Monetary policy is likely to remain supportive of growth in the near term.** BNM raised the Policy Rate (OPR) by 25 basis points in July, the first rate hike in three years. BNM has since returned to a holding pattern to support domestic demand, and is likely to maintain its supportive stance on growth into 2015 given the sputtering export engine. Nevertheless, monetary policymakers remain highly watchful of financial imbalances, especially from household debt, which reached 87.1 percent as of 3Q 2014.

**Further declines in oil prices are the key risk.** Malaysia's export-dependent economy is susceptible to the uneven recovery in advanced economies and slower growth in China. Tighter monetary policy and liquidity conditions abroad are also likely to impact Malaysia. However, as evidenced by the recent depreciation of the Ringgit, the key risk is further and sustained declines in oil prices, which would put pressure on external and fiscal accounts.

**Tighter domestic conditions will constrain policy options to boost growth.** The implementation of the GST, lower oil prices and the commitment to further fiscal consolidation will constrain policy options to boost domestic demand. Ensuring continued growth will therefore be even more of a balancing act in 2015, and depend on Malaysia's ability to implement productive investments and structural reforms.

## TOWARDS A MIDDLE-CLASS SOCIETY

**Malaysia has in many ways become a success story in shared prosperity.** Shared prosperity means that all households experience income growth, but growth is higher for those households at the bottom of the distribution, a pattern that leads to lower inequality. In the past 40 years, Malaysia drew on its natural resources to nearly eradicate absolute poverty, from 49 percent in 1970 to 1 percent in 2014. The number of Malaysians vulnerable to falling into absolute poverty has also declined in this period.

**Inequality declined compared to the 1970s, but remains high compared to high-income economies.** The Gini on income declined from 55.7 in 1976 to 42.1 in 2014. Some disparities between ethnic groups remain, but the largest potential for reductions in inequality lie in efforts focused across all groups in society as inequality within ethnic groups explains 96.4 percent of total income inequality.

**Well-implemented policies that enhance equity are good economic policy.** Lower levels of inequality can reinforce and accelerate economic growth by increasing social cohesion, reducing political support for radical and distortionary policies, and creating a large consumer class that generates scale economies for local businesses. Cingano (2014) estimates that growth in Mexico and New Zealand would have been 10 percent higher over the past two decades if inequality had not risen.

**Malaysia's shared prosperity journey has entered a new phase: moving towards a middle-class society.** The transformation into a high-income nation is a means to becoming a middle-class society. Higher gross national income (GNI) generates the resources but is not enough to fulfill the needs and aspirations of Malaysian households. The distribution of growth also matters. Advanced economies not only have high levels of GNI per capita, but they also have large middle classes that enjoy a "comfortable living" afforded by the nation's high income.

**Malaysia now needs to take on the challenge of moving 'aspirational' households, now the largest group in society, to the middle class.** The first priority of any country is to reduce absolute poverty, which is characterized by deprivation of the most basic needs such as food and shelter. The second priority is to protect households that are at risk from falling into absolute poverty. Still, most Malaysian families, while no longer poor or vulnerable, aspire to more than just

meeting one's basic needs, to what may be called a "comfortable living" that is associated with the middle class. While defining a specific entry point to the middle class is necessarily subjective, the mean income may serve a reference point since aspirations depend to some extent on what others have.

**The aspirational group is largely urban and has smaller families than poor or vulnerable families, but most lack post-secondary education.** 76 percent of aspirational households live in urban areas. Only 16 percent have a post-secondary degree compared to 55 percent of the middle- and upper classes they aspire to join. Nevertheless, the aspirational group has relatively stable jobs (most are public or private employees) and enjoys good material conditions: 78 percent own cars, and 95 percent live in adequate housing conditions.

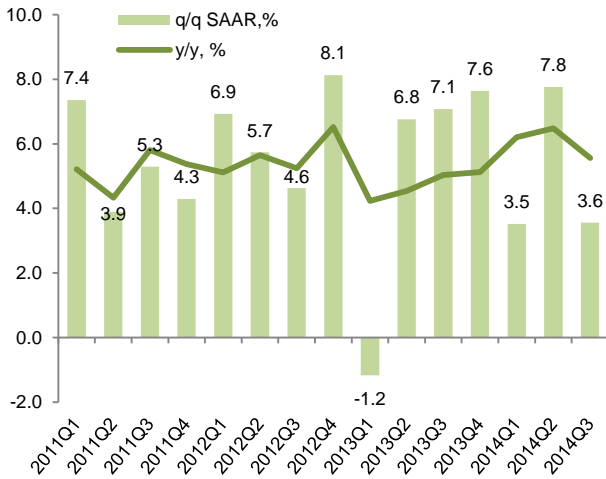
**Raising incomes of the aspirational groups requires boosting income from work, savings and transfers.** For aspirational households to move to the middle class, they require more opportunities to command higher earnings from work – especially through access to post-secondary education and training, but also entrepreneurship. Moreover, most households need more savings for retirement, which is required for households that join the middle class to stay there once they leave the labor markets. Finally, for the poor and vulnerable income transfers play an important role.

**To accelerate Malaysia's transformation into a middle-class society, Malaysia may consider prioritizing reforms that:** (i) close the educational achievement gaps at the post-secondary levels by compensating for family background, including pursuing universal pre-primary enrolment and other policies to boost the quality of the poorest-performing schools; (ii) provide more demand-driven post-secondary skills training for those already in the labor markets; (iii) create an integrated social safety net including both social insurance mechanisms to protect households against shocks and old age (for example by introducing unemployment insurance and redirecting subsidy savings to matching contributions to retirement accounts), and higher levels of social transfers (by consolidating, improving targeting, and increasing benefits of existing programs); (iv) this safety net may be financed through more progressive tax policy (for example by reviewing the top marginal personal income tax rate and expanding the number of taxpayers).

# THE MALAYSIAN ECONOMY IN PICTURES

## GDP growth decelerated in the third quarter of 2014...

Real GDP, seasonally adjusted, annualized change from last quarter, percent



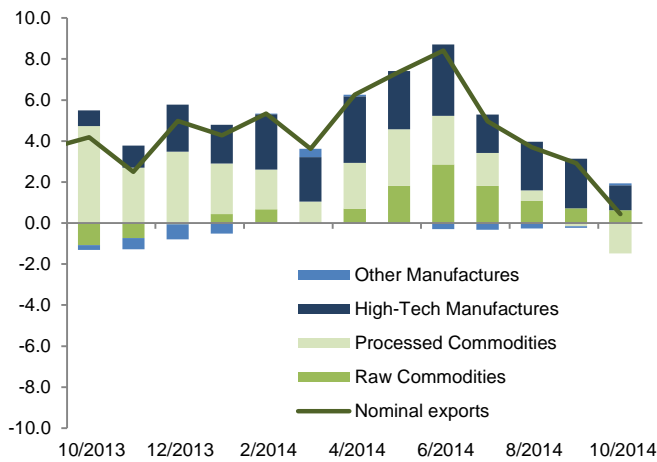
## ... but annual growth remains robust

Change from the previous year, percent



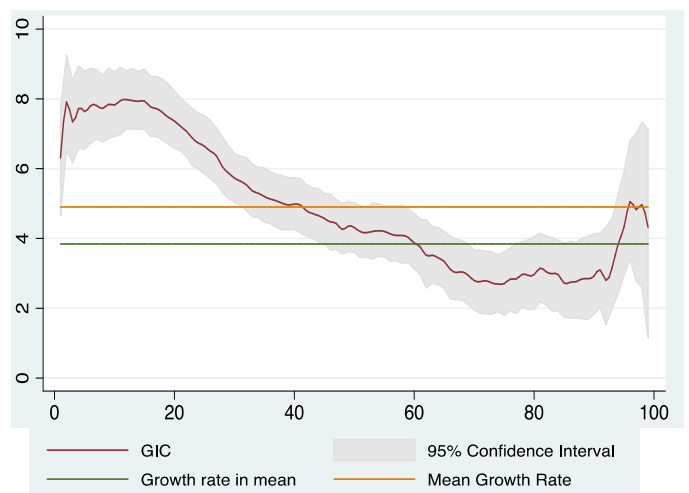
## Export growth slowed...

Change from the previous year, 3-month moving average, percent (line); contributions to growth, percentage points (bars)



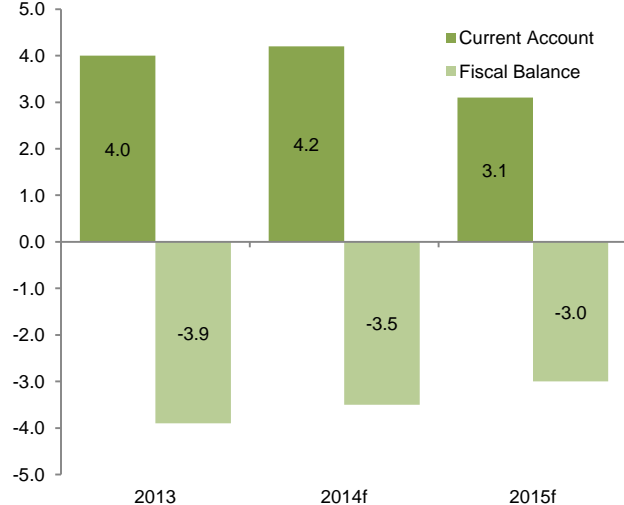
## ...but strong income growth supports consumption

Household income growth between 2012 and 2014, annualized, (y-axis) by percentile of the income distribution (x-axis), percent



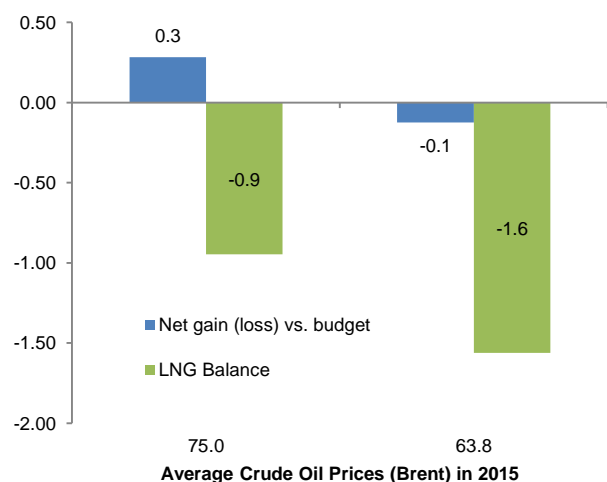
## Lower oil prices have limited negative impacts for now...

Federal Government balance and current account balance, percent of GDP



## ...but further price declines pose a significant risk

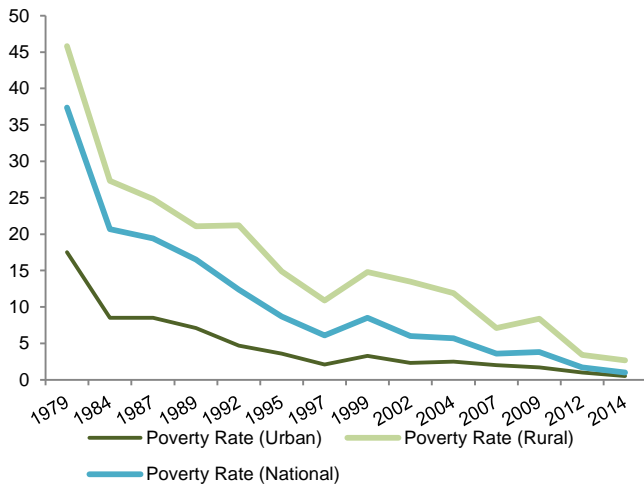
Estimated impact of lower oil prices, baseline and further 15 percent decline, comparison with previous baseline of USD 95 per barrel, in ppt of GDP



# TOWARDS A MIDDLE-CLASS SOCIETY IN PICTURES

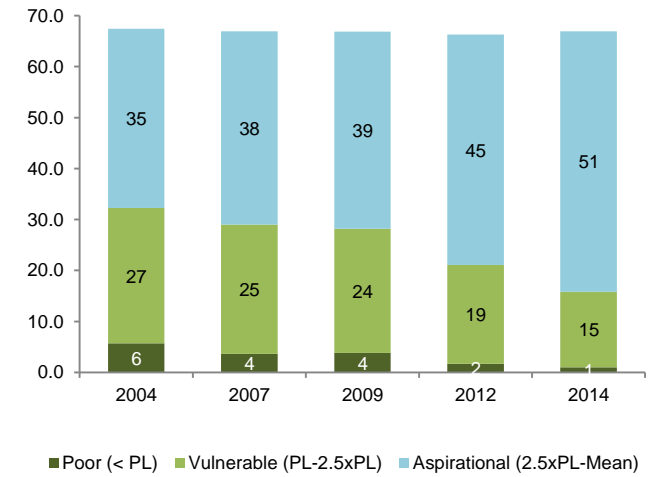
## Absolute poverty has been nearly eradicated

Share of households below the poverty line income, percent



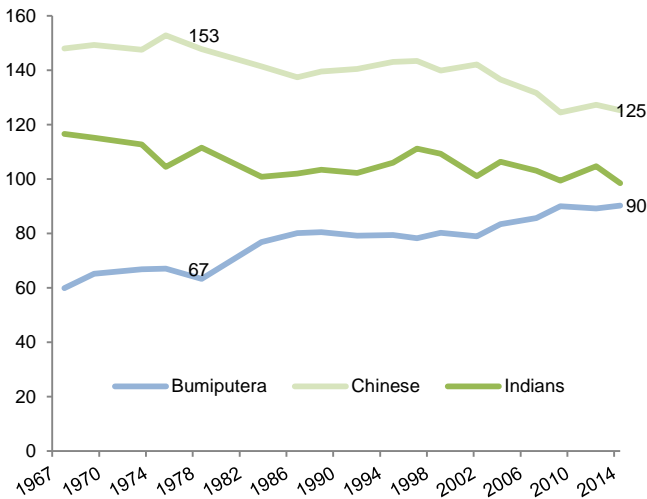
## Vulnerability declined and a large aspirational group emerged

Percent of households



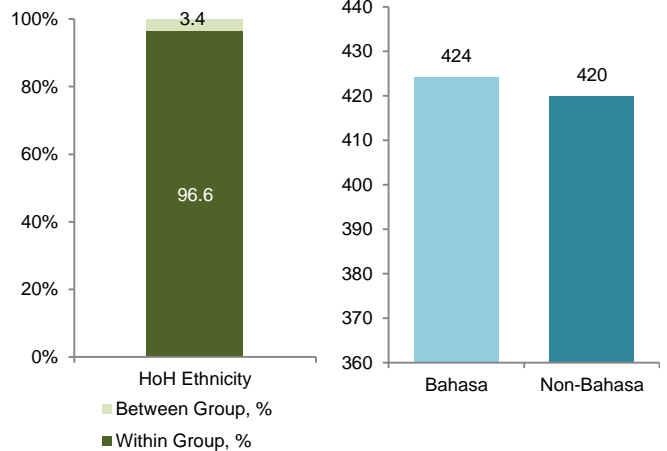
## Some income gaps remain, but they have declined...

Percent of the average income



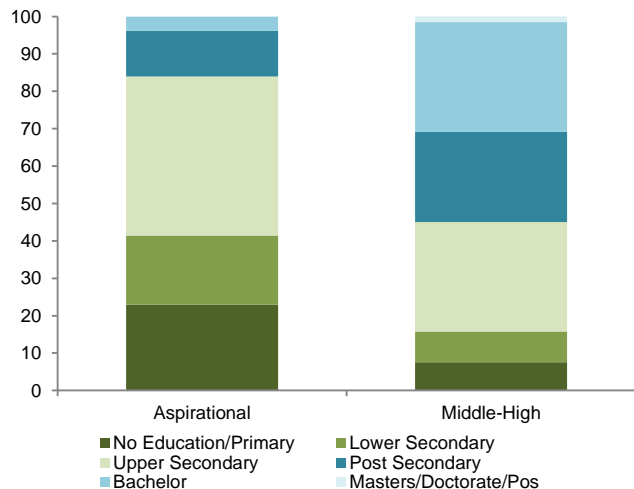
## ...and most income inequality is now within groups

Share of the Theil(0) index of income inequality attributed to between and within group inequality (LHS); PISA scores adjusting for school and student background, by language spoken at home (RHS)



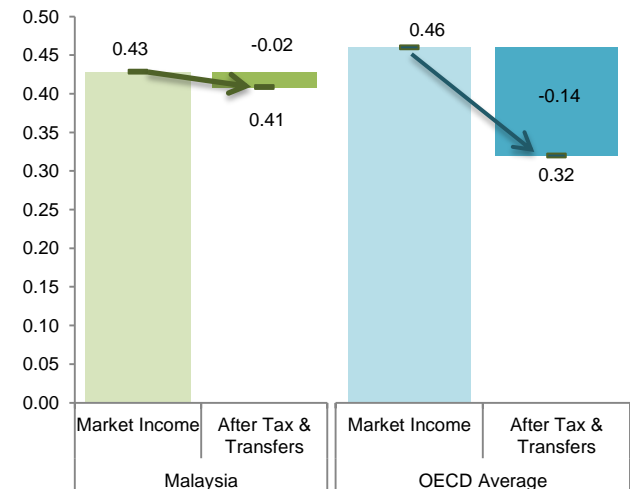
## Aspirational group lacks post-secondary education

Percent of households with a given level of education



## Transfers could be financed by a more progressive tax system

Gini coefficient on income, pre- and post-tax and transfers



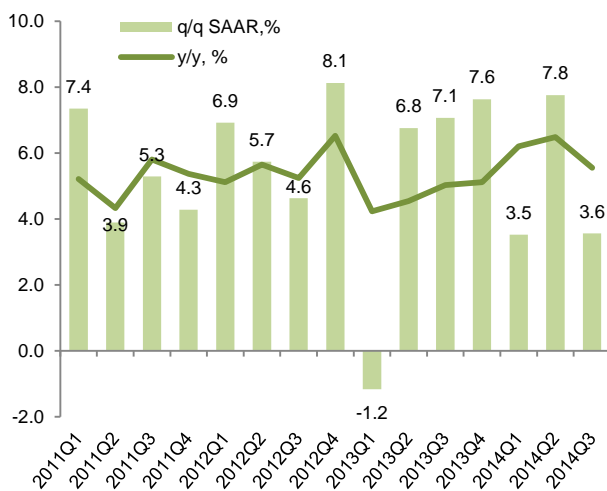
# 1. RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

## Malaysia's economy continued to expand, led by domestic drivers

**1. Malaysia posted a sixth consecutive quarter of growth in the third quarter of 2014, but the pace has been uneven.** Gross Domestic Product (GDP) expanded by 3.6 percent (quarter-on-quarter, seasonally annualized rate – q/q saar) in the third quarter, compared to 3.5 and 7.8 percent in the first and second quarters, respectively (Figure 1)<sup>1</sup>. This brought year-on-year (y-o-y) real GDP growth for the first nine months of 2014 to 6.1 percent (Q3: 5.6 percent y-o-y). This was in line with the World Bank's forecast, although domestic demand exceeded expectations while external demand disappointed. Malaysia's performance followed a pattern seen in most economies across Southeast Asia, where the slowdown in China in the third quarter correlated with lower GDP growth elsewhere (Figure 2).

**Figure 1. GDP growth slowed in the third quarter...**

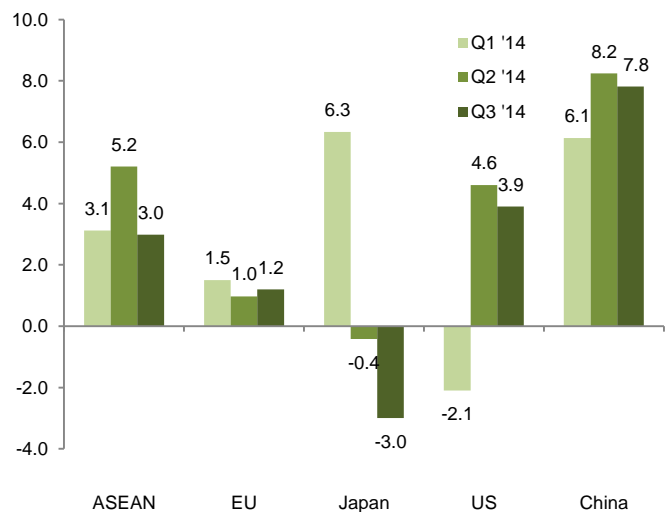
GDP adjusted for inflation and seasonal fluctuations, change from the previous quarter, annualized (bars), and from the previous year (line); percent



Source: CEIC, DOSM, World Bank staff calculations

**Figure 2. ... a pattern common to other ASEAN countries linked to slower growth in China and the US.**

GDP adjusted for inflation and seasonal fluctuations, change from the previous quarter, annualized; percent



Source: CEIC, DOSM, OECD, World Bank staff calculations  
 Note: ASEAN refers to the simple average of GDP growth in Malaysia, Singapore, Thailand, Philippines and Indonesia

**2. Sectors catering to domestic demand were the main drivers of growth.** The contribution of domestic demand (GDP less net exports) to year-on-year growth moderated to 2.0 percentage points (pp) in the second quarter, but picked up again to 4.8 pp in 3Q 2014 as the contribution from inventories turned positive (Q3: +0.2 pp vs Q2: -3.4 pp) despite continued drawdowns for the fifth consecutive quarter. The strength of domestic demand correlated with the acceleration in domestically-oriented sectors, especially services, which expanded by 10.4 percent (Q2: 4.1 percent). Growth in the services sector was sustained by the turnaround in finance and insurance (14 percent q/q saar) due to higher growth in net interest income, as well as real estate and business services (+7.4 percent q/q saar). After a negative second quarter (-22.7 percent q/q saar), the construction sector expanded by 9.1 percent from the previous quarter on continued momentum of construction investment (+12.7 percent q/q saar).

## A softer tone in the external sector

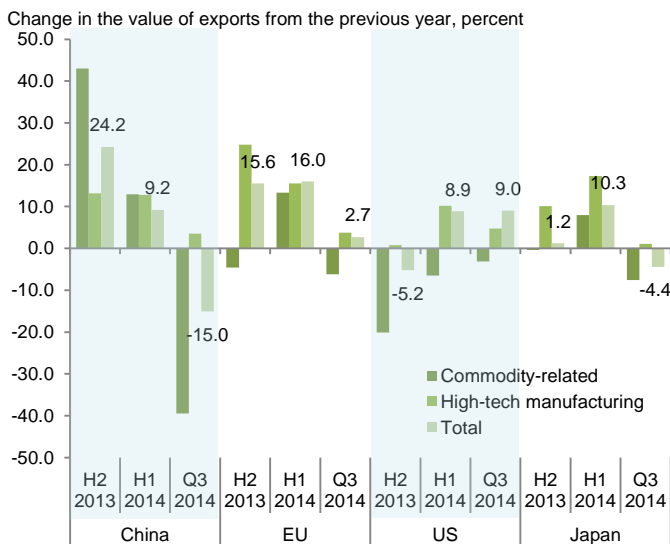
### The expansion in exports continued but lost some momentum

**3. Lower shipments to China, especially of commodities, dragged down export growth in the third quarter.** After five consecutive quarters of expansion, real exports of goods and services contracted by 10.4 percent q/q saar in the

<sup>1</sup> Unless stated otherwise, annualized quarter-on-quarter GDP figures are calculated based on the national account series seasonally adjusted by DOSM.

third quarter (Q2: 5.0 percent, Q1: 6.1 percent). The contraction was driven mainly by lower commodity exports to China, specifically copper that had been imported in the first half of 2013 and exported in the second half (Figure 3). Lower levels of LNG exports to Japan (-8.2 percent) were reflected in a 5.1 percent decline in the production of natural gas even though LNG prices were still firm at the time. Exports of other commodities were mixed. Crude oil production was flat, with export values declining on lower prices. Palm oil export volumes increased as nominal exports were up 9.9 percent in the third quarter despite a decline in prices. Rubber exports have now fallen below the level of timber exports for seven months, suggesting a diminishing economic significance of the commodity.

**Figure 3. Commodity exports to China plunged while high-tech grew at a slower pace across destinations**



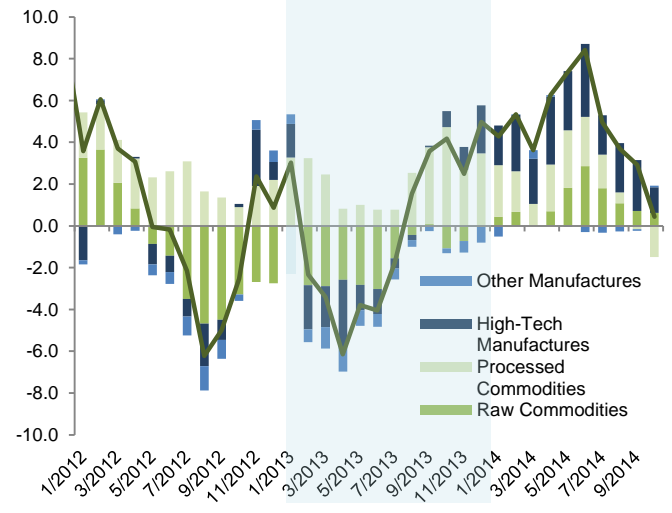
Source: CEIC, DOSM, and World Bank staff calculations

Notes: 1. "Commodity-related" includes food and live animals; beverages and tobacco; inedible crude materials; mineral fuels; animal and vegetable fats and oils; and chemicals. High-tech is approximated by machinery and transport equipment

2. Exports to the EU approximated by exports to the U.K., France, Germany and Netherlands

**Figure 4. The contribution from processed commodities and high-tech manufacturing declined**

Change of US dollar value of exports of the past three months from the previous year, percent



Source: CEIC and World Bank staff calculations

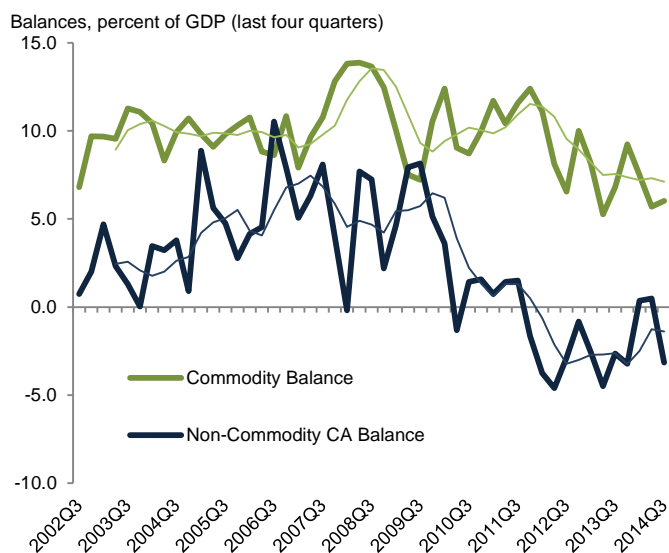
**4. Non-commodity export growth lost some momentum.** Electrical and electronics (E&E) exports continued to expand, posting 4.3 percent growth in the third quarter after expanding 6.3 percent in the first six months of the year (y-o-y). As a result, the E&E sector registered its smallest expansion in six quarters, growing by 0.3 percent q/q saar in Q3 (Q2: +3.8 percent q/q saar). Exports of other high-tech manufactures picked up, however, and manufactured exports contributed most of the overall (nominal) export growth in the third quarter (Figure 4). The deceleration of high-tech export growth across export destinations (Figure 3), including the US, where import demand continues to improve, suggests that the earlier pick-up seen in the first half of the year may not fully reflect a long-term expansion in production capacity in the sector.

### The current account surplus narrowed on weak exports and higher factor payments

**5. The goods balance remained in surplus, but the services deficit widened.** In light of declining demand and ample supply, prices of petroleum and palm oil declined by 18.8 and 16.5 percent year to date until October. However, the price effect had been less pronounced until the third quarter, leading to only a modest decline in the value of commodity exports compared to the second quarter. On the import side, goods imports came down only slightly from a record high in the second quarter. Imports of intermediate goods imports increased on higher imports of parts and components as firms rebuilt inventories, but capital goods imports decelerated along with equipment investment. On aggregate, the goods balance remained in surplus (RM28.7 billion in the third quarter) but embarked on a downward trajectory that continued into October. The services deficit continued to widen, as the transportation deficit increased by 9.1 percent year-to-date compared to 2013. This led to a deterioration of the non-commodity balance to a deficit in the third quarter (Figure 5).

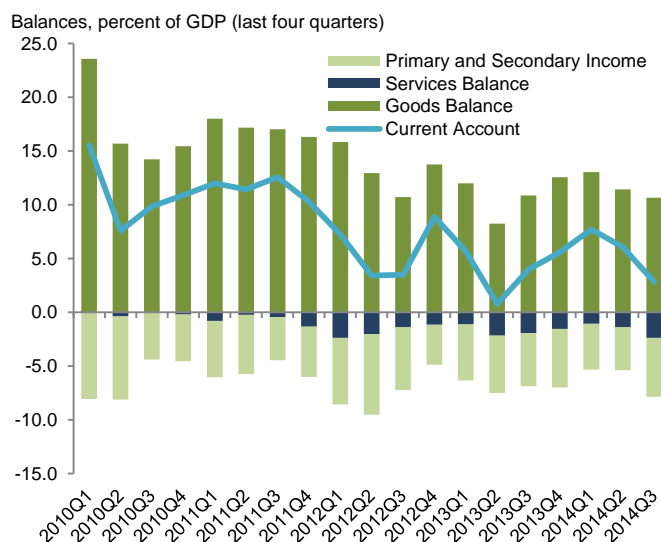
**6. Overall, the current account surplus shrank to 2.9 percent of GDP on account of several factors beyond commodity prices.** Income payments weighed on this surplus as primary income payments amounted to a net deficit of RM 9.4 billion. This position mainly reflects an increase in profit remittances from foreign direct investments in Malaysia. The net deficit on secondary income (payments without quid pro quo) also rose to RM 5.3 billion following a one-off surge of inward transfers in the second quarter. After averaging surpluses of 4.1 and 7.0 percent of GDP over 2013 and the first half of 2014, respectively, Malaysia's current account thus narrowed to 2.9 percent of GDP (RM7.6 billion) in the third quarter, the smallest surplus since 2013Q2 (Figure 6). As outlined, this deterioration is broadly based and does not yet reflect lower energy prices (see Issue Note A below). From a macroeconomic perspective, the shrinking current account implies that Malaysia's rate of net saving (i.e. savings minus investment) declined, reflecting continued consumption and investment growth amid lower export income.

**Figure 5. The commodity balance has been stable...**



Source: CEIC and World Bank staff calculations  
 Notes: Commodity-related exports include food, beverages & tobacco; mineral fuels & lubricants; chemicals; animal and vegetable oils and fats

**Figure 6. ... while the non-commodity balance decline was broad-based.**



Source: CEIC and World Bank staff calculations

## The domestic economy remained robust

### Equipment investment retreated, but construction and private consumption continued to expand

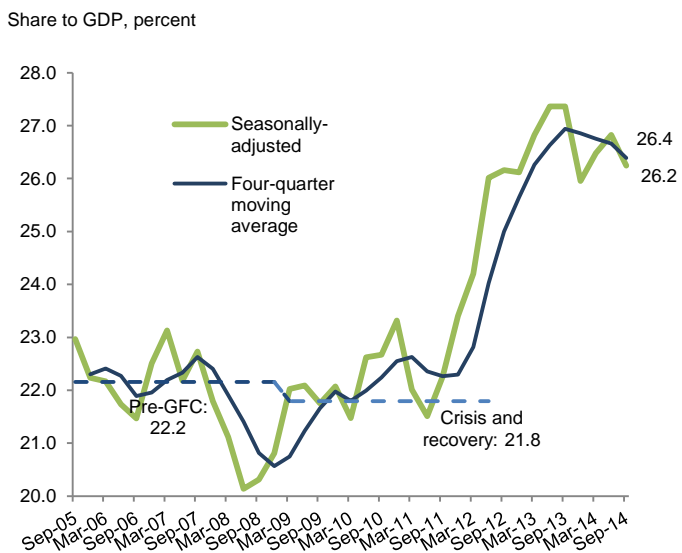
**7. Investment moderated further as public investment continued to slump.** After a vigorous start in 2014, gross fixed capital formation contracted by 6.1 percent q/q saar in the third quarter (Q1: 12.4 percent, Q2: 5.5 percent). Public investment remained sluggish, contracting for the fourth consecutive quarter by 6.8 percent q/q saar due to slower disbursements of the development budget and the near completion of several projects by public enterprises (Q2 2014: -1.5 percent, Q1 2014: -9.8 percent). Private investment grew by 4.0 percent over the previous quarter. This was due to an expansion in construction investment as purchases of equipment contracted by 27.7 percent due to a nearly 50 percent decline (year-on-year) in imports of lumpy industrial transport equipment such as aircraft and rolling stock in the third quarter. The share of investment to GDP declined to 26.2 percent, slightly lower than the previous figure of 26.7 percent (Figure 7) but still well-above levels prevailing prior to 2012.

**8. Private consumption was unhampered by declining agricultural commodity prices, tighter credit and the prospect of higher fuel prices.** Overall, private consumption remains a major and steady driver of growth. Despite softer commodity prices (and attendant implications for smallholder households whose income is tied to palm oil and rubber prices), tighter credit conditions, and mild inflationary pressures from adjustments to managed prices, household consumption showed few signs of waning in mid-2014 amid rising income at the bottom of the income distribution (Figure 8). Bolstered by festivities, private consumption expanded by 12.4 percent in the third quarter



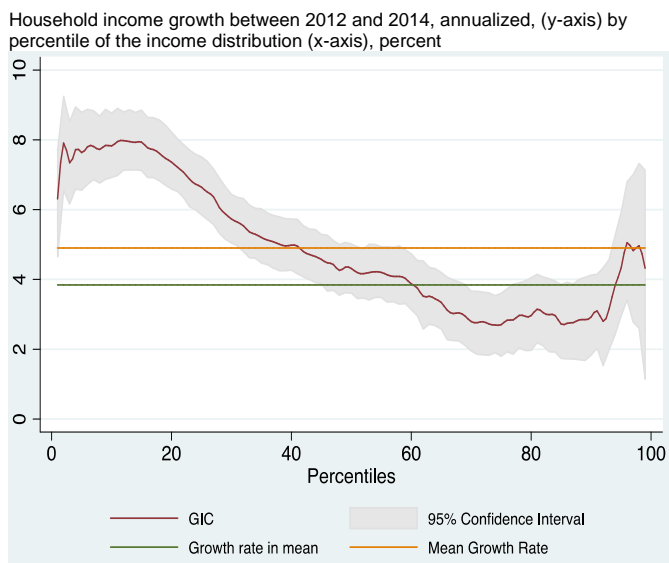
compared to the previous quarter, accelerating from 8.7 percent q/q saar previously. Government consumption was volatile, registering positive growth of 14.2 percent in the third quarter due to higher spending on supplies and services (Q2: -12.6 percent). Consumption of domestic value-added (World Bank estimate) expanded by 7.0 percent year-on-year in the third quarter and contributed an average of 3.7 percentage points to GDP growth in the first three quarters of 2014 (2013: 3.9 pp).

**Figure 7. The investment-to-GDP ratio stabilized in late 2013 after rising sharply in 2012**



Source: CEIC, DOSM, World Bank staff calculations

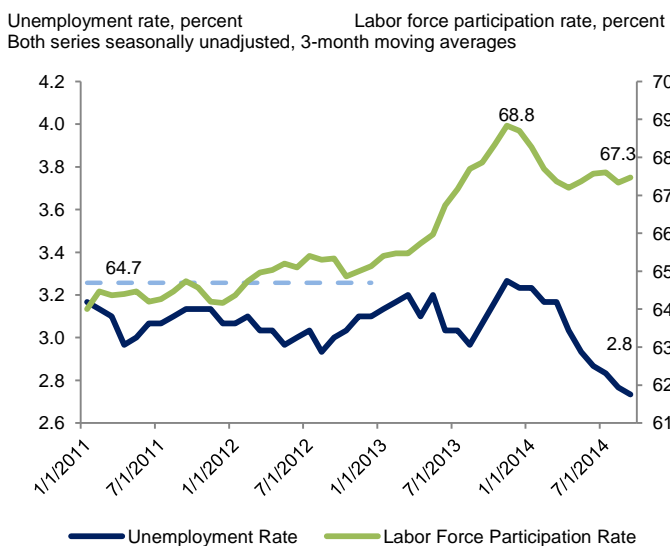
**Figure 8. High income growth rate among lower-income households has supported consumption growth**



Source: HIS 2014 (preliminary), DOSM and World Bank staff calculations

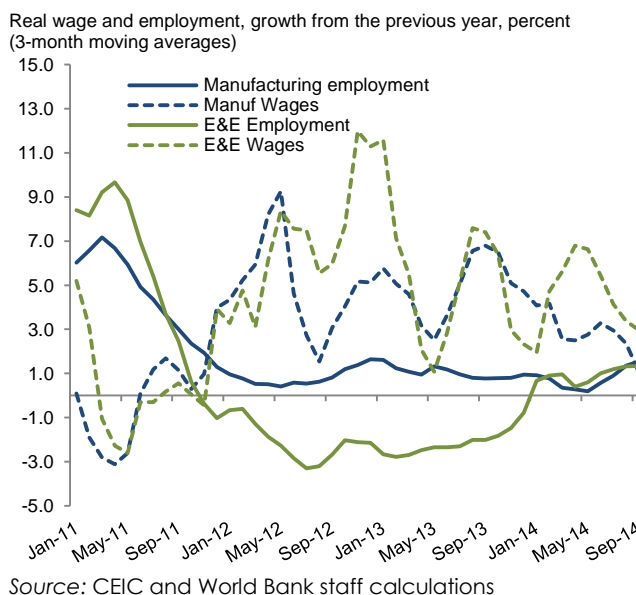
### Strong labor markets support household consumption

**Figure 9. The unemployment rate declined even as the labor force participation stabilized**



Source: CEIC and World Bank staff calculations

**Figure 10. Employment and wage growth has been in positive territory for most of 2014**



Source: CEIC and World Bank staff calculations

**9. Stable employment growth and fewer entrants into the labor market drove the unemployment rate to new lows.** The number of jobs in the economy grew by 1.4 percent from September 2013 to September 2014, compared to 10 percent over the same period in the previous two years. Yet the unemployment rate declined throughout 2014 and stabilized at 2.7 percent in the third quarter (Figure 9). The decline was initially driven by a moderation of the labor

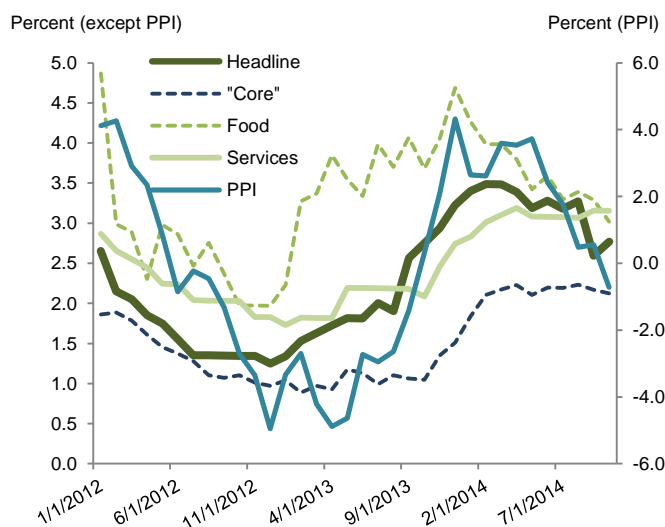
force participation rate came down from its peak of 69.6 percent last September to 67.5 percent in September 2014. Over this period, the number of Malaysians employed or looking for a job grew by 1.4 percent, compared to the increase of 1.5 percent in the working-age population and an increase of 1.4 percent in the number of jobs. Combined, these developments reflected stable employment. There were few changes in the contribution of the manufacturing sector, which expanded by 0.8 percent or approximately 12,000 jobs, as employment in the E&E sector remained largely stable (Figure 10).

**10. Wage gains have started to slow.** As external demand slowed in the third quarter, wage growth in the manufacturing sector decelerated as well, driven largely by external-oriented sectors. Real average manufacturing wages expanded by 1.3 percent in the first nine months of 2014 compared to 2013, down from 4.9 percent in the previous year. A pick-up in E&E activity early in the year led real average wages to increase by 2.7 percent over the same period, but wage gains appear to be slowing given the sector's weaker performance in the second half of 2014 (Figure 10).

### Inflation edges up on higher administered prices but few signs of second-round effects

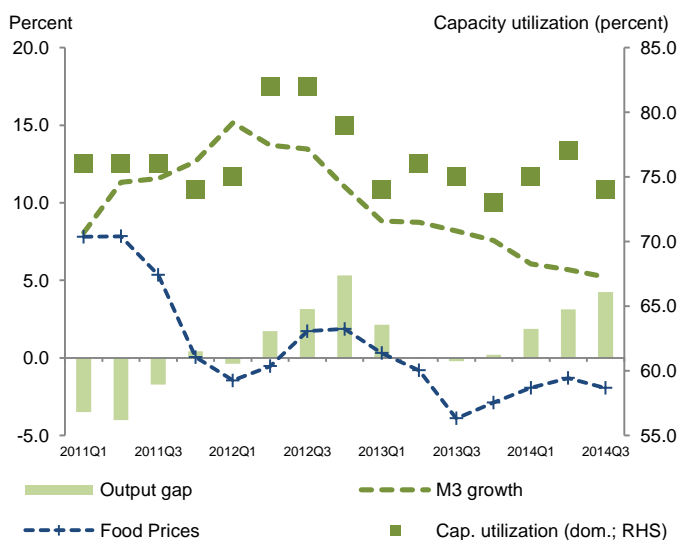
**11. Despite the backdrop of low unemployment and strong domestic demand, inflation remained relatively stable.** Consumer price inflation picked up modestly from 2.1 percent in 2013 to an average of 3.2 percent in the first ten months of the year. Due to base effects from fuel subsidy cuts a year ago, inflation moderated down to 2.6 percent in September, only to pick up again in October to 2.8 percent following a second round of fuel subsidy cuts in early October (Figure 11). In tandem with declining global food prices, domestic food prices decelerated throughout 2014 to reach an average of 3.2 percent from July to October (2013: 3.6 percent). Excluding food, beverages and energy, 'core' inflation (World Bank estimate) increased slightly from an average of 1.1 percent in 2013 to 2.1 percent in the first 10 months of 2014. After reaching a peak of 3.7 percent in May, the producer price index fell throughout the second half of 2014 to 0.6 percent in September, pointing to benign supply conditions.

**Figure 11. Core inflation increased, but stabilized at around 2 percent in 2014**



Source: CEIC, DOSM, BNM and World Bank staff calculations  
 Note: Core inflation is World Bank estimate

**Figure 12. Benign supply conditions supported price moderation amid a growing output gap**



Source: CEIC, DOSM, BNM and World Bank staff calculations  
 Note: Output gap and capacity utilization rates for domestic oriented sectors. Output gap calculated using the Hodrick-Prescott filter to estimate potential GDP

**12. Inflationary pressures have been building up, but remain mild thanks to favorable supply conditions.** Strong domestic demand and higher capacity utilization in the second quarter of 2014 would have suggested more significant pressure on inflation, but credit growth continued to decelerate (Figure 12). Capacity utilization also came down, suggesting that the earlier surge in investments may have increased domestic capacity and raised potential output. Services inflation – which may be expected to reflect labor market pressures on prices – has remained stable

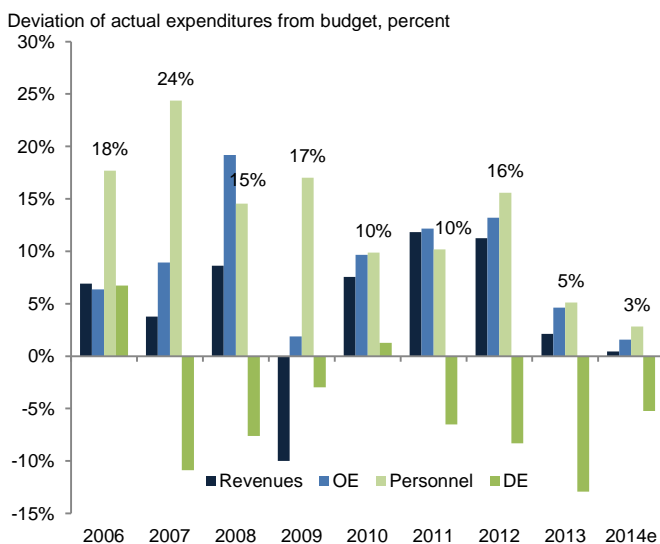
at 3.2 percent in October. Supply-side factors such as declining global prices of food and crude oil also kept inflation relatively stable throughout the second half of the year.

### Fiscal policy in consolidation mode

**13. The 2014 deficit target of the Federal Government is likely to be met thanks to greater restraint on current expenditures.** The Government reaffirmed the commitment to meeting the Federal Government's deficit target of 3.5 percent of GDP in 2014 (2013 actual: 3.9 percent). Deviations from the budget are expected to come in at their lowest levels in years, with current expenditures projected to exceed their original allocation by RM3.5 billion or 1.6 percent (2013: 4.6 percent, 2012: 13.2 percent). Although emoluments, pensions and gratuities continued to grow, they are expected to exceed the budgeted amount by only 3 percent, significantly less than in the past (Figure 13). The government will need to rely less on raising additional revenues to meet the deficit target than in the past, although shortfalls in development expenditure will continue to help the fiscal position.

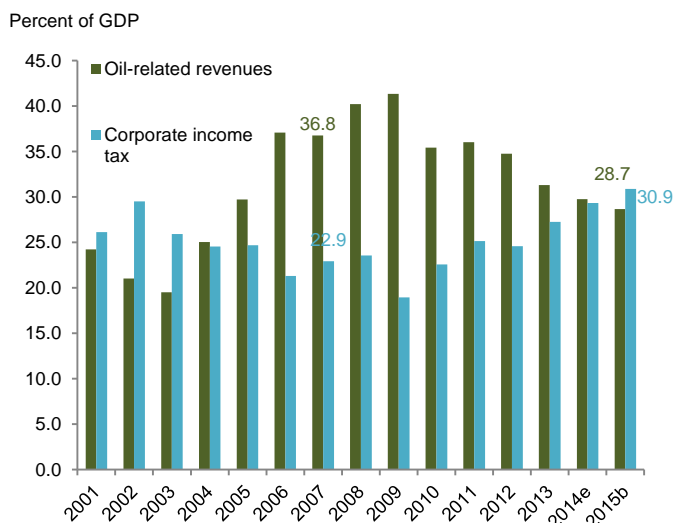
**14. Recent cuts in fuel subsidies will support deficit reduction.** In October, the Government reduced subsidies for RON95 and diesel by RM0.20 per liter. Due to falling crude oil prices, these fuel subsidies have been completely eliminated as of December 1 in favor of a 'managed float' (see Issue Note A). These developments will help the government save an upwards of RM1 billion for the rest of 2014, further helping it to meet the deficit target. Underspending on BR1M transfers, included in the allocation for fuel subsidies, also helped to reduce subsidy spending. In 2014, the government disbursed a total of RM3.6 billion to 6.9 million recipients under the scheme, instead of RM4.6 billion to 7.9 million recipients as previously estimated.

**Figure 13. Spending on personnel is expected to exceed the budget by less than in previous years.**



Source: CEIC, MoF, and World Bank staff calculations  
 Note: 'Personnel' includes emoluments, pensions and gratuities

**Figure 14. The dependency on oil-related revenues has declined**



Source: CEIC, MoF and World Bank staff calculations  
 Note: Oil-related revenues include Petroleum Income Tax, export duties on crude oil, petroleum royalties, the PETRONAS dividend, income from the Joint Malaysia-Thailand Development Area and petroleum permits

**15. Higher corporate income tax collections and weaker oil prices will help to reduce the dependency on oil-related revenues.** Total oil-related revenues are expected to decline slightly from 31.2 percent of overall revenues in 2013 to 29.7 percent in 2014, or 5.9 percent of nominal GDP (Figure 14). Despite a higher than expected dividend from PETRONAS of RM29 billion, Petroleum Income Tax (PITA) collection is likely to underperform on the account of weaker crude oil prices in the fourth quarter. Since this estimate is based on oil prices of USD110 per barrel, actual revenues from PITA are likely to be lower, further dampening the proportion of oil-related revenues. Nonetheless, collections of

corporate income tax are expected to continue to demonstrate buoyancy<sup>2</sup>, growing at a rate of 16.3 percent compared to 9.6 percent for nominal GDP. Despite the expectation that personal taxes will underperform by RM2 billion in 2014, personal and corporate income taxes are expected to account for 8.7 percent of GDP, close to 2001-2002 levels of 8.8 percent of GDP.

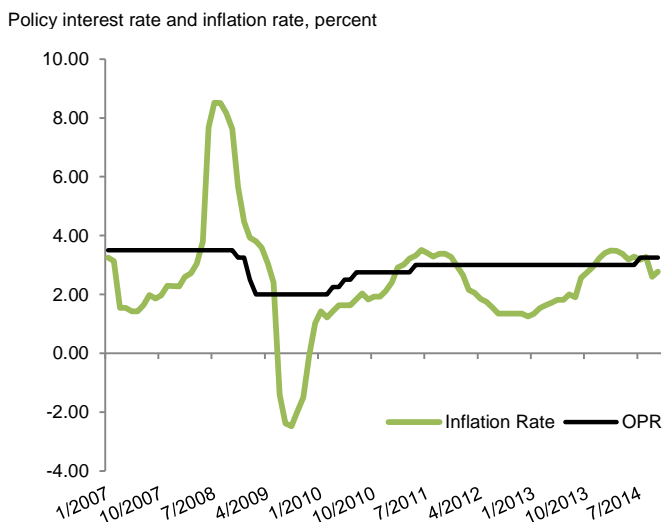
**16. Investments by NFPEs continue to outpace disbursements in the development budget and will lead to a higher deficit of the consolidated public sector.** Development expenditures are expected to come in RM2.3 billion (5.2 percent) under budget, falling for the fourth consecutive year. This was an improvement over previous years (2013: -12.9 percent, 2012: -8.0 percent). By contrast, development expenditure by NFPEs is estimated to reach RM103.5 billion this year, double the amount spent by the federal government. Major infrastructure projects such as the Pengerang Integrated Petroleum Complex and the MRT are underway. Several of these projects are partially financed by government-guaranteed debt, which stood at 15.1 percent of GDP at end-September 2014, a slight decrease from 15.9 percent at end-2013. As a result of these large investments by NFPEs, the consolidated public sector deficit is estimated to increase to 6.7 percent of GDP, up from 3.9 percent last year. Nonetheless, the surge in NFPE investment may not fully materialize (actual NFPE investment in 2013 turned out to be 35 percent lower than the estimate in the 2013 Economic Report).

## Stable financial conditions despite external uncertainties

### Monetary policy remains supportive of growth while watchful of imbalances

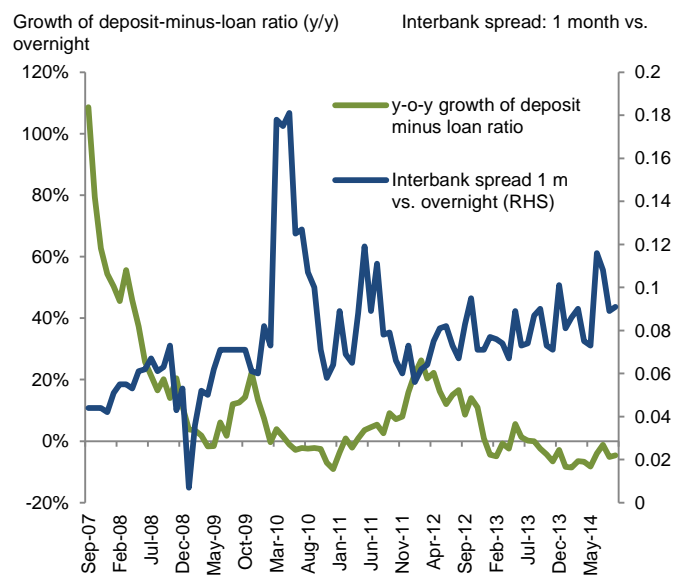
**17. Monetary policy tightened for the first time in three years in July.** Bank Negara Malaysia (BNM) hiked its benchmark interest rate (the overnight policy rate, OPR) by 25 basis points to 3.25 percent in July 2014 after holding it steady for three years. Citing the need to mitigate the risk of financial imbalances that could undermine the growth prospects of the economy, BNM's decision was linked to concerns about financial imbalances, including those that could emerge from negative real interest rates (Figure 15). But by November the tightening cycle was put on hold. This could be attributed to three related developments since July: first, inflation had started to come down, allaying fears of second-round impacts from fuel subsidy cuts in late 2013; second, oil prices declined significantly starting in September, putting additional downside pressure on inflation but also on Malaysia's exports; and finally, the global recovery remained uneven and growth forecasts, while still positive, were trimmed.

**Figure 15. Real policy rates turned negative in early 2014**



Source: CEIC, DOSM, BNM

**Figure 16. Loans expanded faster than deposits in 2014**



Source: Haver and World Bank staff calculations

<sup>2</sup> Growth rate of income taxes exceeds the growth rate of nominal GDP.

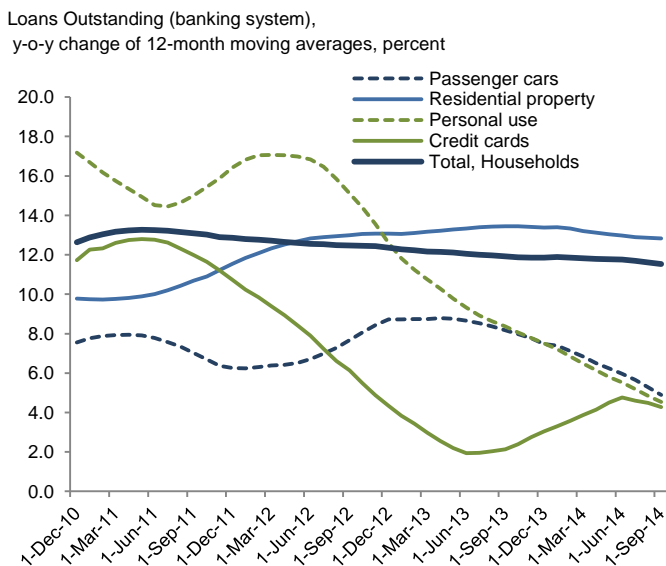
## Credit growth decelerates, but housing loan growth remains steady

**18. Liquidity conditions in the banking sector are tightening, partly due to changes in depositor behavior.** The excess liquidity of banks (measured as loans less deposits) has been shrinking for the most part of 2013 and 2014. The reduction in liquidity was also reflected in an increasing spread of the interbank rate (Figure 16). The business survey for future tendencies suggests a continued faster expansion of loans than for deposits going forward. This tendency might reflect receding global liquidity, anticipated reforms of the Basel III regulation on Liquidity Coverage Ratios becoming effective 2015, and potential changes in depositor behavior. For example, over the course of 2014, a moderation in fixed domestic deposits has been noticeable, while foreign exchange deposits picked up.

**19. Notwithstanding tighter liquidity, the Malaysian banking sector remains well capitalized.** Banks' Tier 1 capital ratio stood at 13.5 percent and total capital ratio at 15.5 percent as of end-September 2014, above levels required by national authorities and Basel III standards. Tier 1 capital comprised 87.2 percent of total capital. Asset quality was stable with the ratio of non-performing loans holding steady at 1.3 percent as of September 2014, similar to the ratio at end-September 2013. The volume of impaired loans contracted substantially by 3 percent in September from the previous year, suggesting an improvement in the quality of assets in the banking sector.

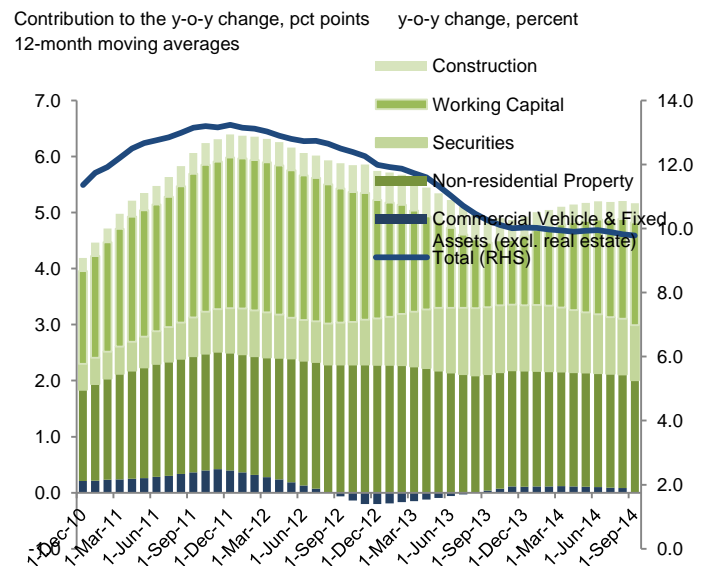
**20. Household borrowing expanded at slowest pace in five years, except for property purchases.** Outstanding household loan growth from the banking system remained stable at 11.5 percent (y/y, as at end-September 2014), slightly down from 11.9 percent a year earlier. Despite the moderation in growth of loans for personal use, credit cards and cars, the overall growth of household loans has been stable due to persistently higher growth in loans for the purchase of residential property, which is the largest category of loans and constitutes 42.2 percent of outstanding household loans (up from 40.2 percent a year before; Figure 17). Since interest rates on mortgage loans are generally tied indirectly to the policy rate, the increase in the stock of mortgage debt held by households (36 percent of GDP as of September 2014 compared to 31 percent as of September 2008) poses additional challenges for monetary policy, as rate hikes are likely to have a relatively larger impact on household budgets than in the past.

**Figure 17. Household loan growth held steady along with credit for housing and auto purchases**



Source: BNM and World Bank staff calculations

**Figure 18. Growth in working capital loans picked up again in 2014**



Source: BNM and World Bank staff calculations

**21. The boom in housing prices may be cooling off.** Starting in 2009, house prices in Malaysia started to rise at an unprecedented rate among ASEAN economies (see Issue Note B). This boom started to cool off in early 2013, with house price increases down from a peak of 12.2 percent (y/y) in 2012Q4 to a four-year-low of 6.6 percent in 2014Q2.

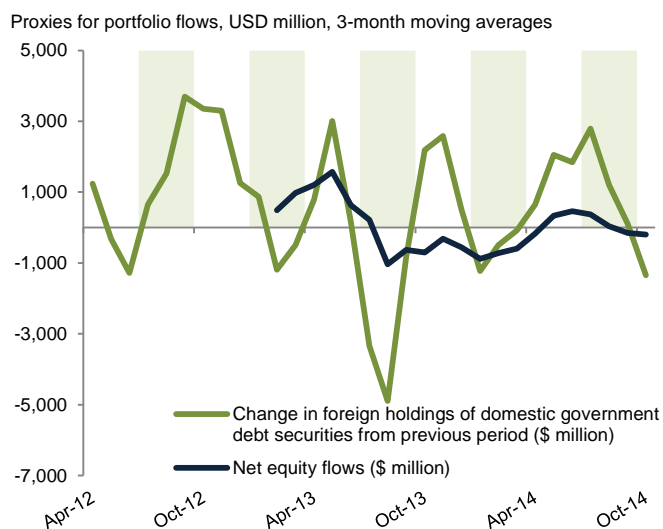
**22. Credit growth to businesses moderated, but issuance of private debt securities picked up.** Total loans outstanding grew by 9.8 percent as at end-September 2014 compared to 10.3 percent a year earlier (12-month moving average):

see Figure 18). This was mainly driven by a continued moderation of outstanding business loans which was relatively broad-based, with only loans for working capital and construction picking up slightly. Overall, growth of banking system loans to businesses decelerated to 7.3 percent (as of end-September 2014, compared to 8.6 percent a year earlier). New issuances of private debt securities amounted to RM63.9 billion in the first three quarters of 2014, an increase of 34 percent compared to the same period in 2013. Total financing extended through the banking system and private debt securities market to the business sector expanded by 8.9 percent as of end-September 2014, compared to 6.8 percent as of end-September 2013.

**23. Increased global risk aversion weighed on stock prices and firms' equity financing.** The FTSE Bursa Malaysia Kuala Lumpur Composite Index (FBM KLCI) stock price index first increased in the first half of 2014 but reversed thereafter, with downturns occurring between October and December. The decline in equities largely reflects global investors' increased risk aversion and portfolio reallocation, which can also be seen from the fact that small cap stocks underperformed relative to blue chips.<sup>3</sup> Accordingly, stock market capitalization increased by just 3.6 percent y/y (as of November), the slowest growth since June 2012.

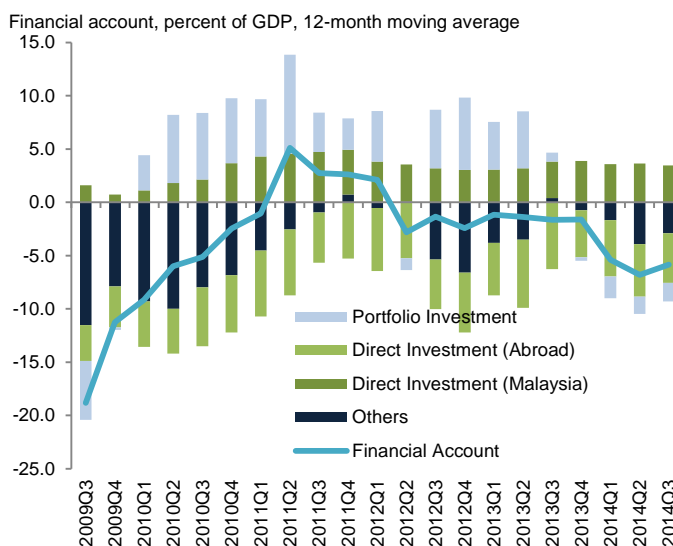
### External flows experienced greater volatility

**Figure 19. Foreigners sold Malaysian debt and equities into the fourth quarter after large purchases earlier**



Source: CEIC, MIDF and World Bank staff calculations

**Figure 20. The financial account posted a negative balance in the third quarter due to portfolio outflows**



Source: CEIC and World Bank staff calculations

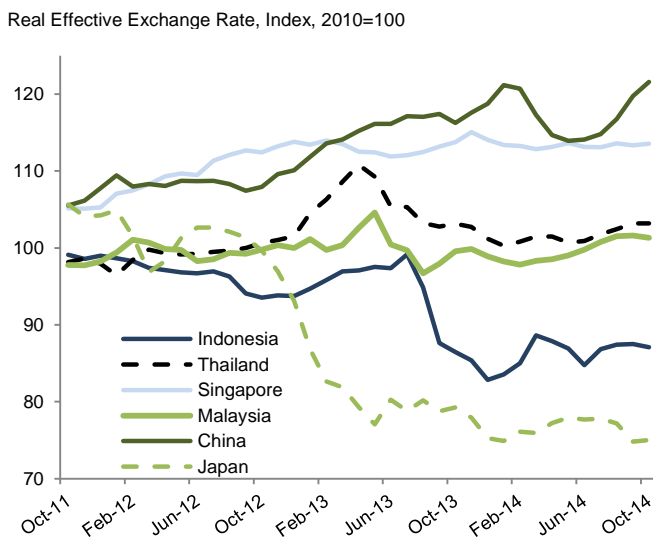
**24. Significant outflows in portfolio investment kept the financial account in a negative balance.** Expectations of monetary tightening in the United States contributed to reallocation of global portfolios and capital flow volatility throughout 2014. Portfolio outflows amounting to RM11 billion in the third quarter followed inflows of RM6.9 billion and outflows of RM13.4 billion in the second and first quarter of the year, respectively. Portfolio outflows were mainly driven by residents, reflecting continued acquisition of foreign portfolio assets by local institutional investors. Non-residents continued to register net inflows for the year as a whole, despite volatility in the capital markets and bouts of capital reversals. Non-resident holdings of Government debt securities show a marginal decline, reflecting continued purchases of conventional MGS in 3Q 2014, which was offset by outflows due to maturing Islamic instruments (Figure 19). Foreign equity investments were also volatile, with outflows recorded in the first and third quarters of 2014. Direct investment recorded a small net inflow of RM2.1 billion in the third quarter (Q2: net outflow of RM4.4 billion) as direct investment of Malaysian companies abroad moderated. Other investments also turned positive after four consecutive quarters of net outflows due to higher inflows from the banking sector. These developments partially offset portfolio outflows, but overall the financial account retained a negative balance of 1.0 percent of GDP in the third quarter (Q2: -4.5 percent, Q1: -14.9 percent; Figure 20). Significant errors and omissions amounted to -RM11.5

<sup>3</sup> Similarly, increased risk aversion was reflected in rising spreads of the 10-year government bond yields vis-à-vis US Treasuries.

billion (Q2: -RM5.2 billion), partly reflecting foreign exchange revaluation losses on international reserves. As a result, the overall balance of payments registered a deficit of 2.5 percent of GDP in the third quarter (Q2: 0.4 percent).

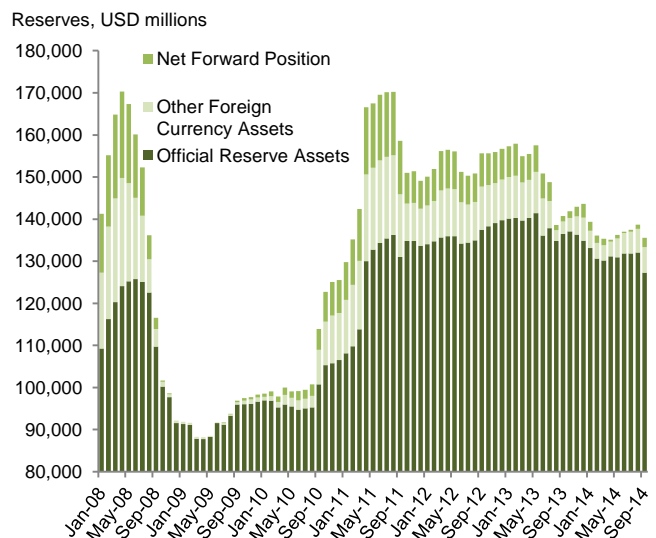
**25. Capital outflows led to the lowest level of the Ringgit against the US dollar since February 2010.** As portfolio flows have been the marginal driver of the financial account in recent years (see also Issue Note B), their rebalancing also caused a sharp depreciation of the exchange rate against the US dollar. Until December, 1, the Ringgit lost 4.9 percent against the dollar in 2014, 4.7 pp thereof during the last three months, and reached its lowest level since February 2010. However, many key emerging market currencies also depreciated against the dollar over the second half of the year, especially those of commodity exporters.<sup>4</sup> Looking at a broader basket of reference currencies weighted by trading partners, the Ringgit thus still performed relatively well (Figure 21). Compared to regional peers over the last years, it saw fewer fluctuations and did not exhibit a strong tendency to appreciate or depreciate.

**Figure 21. Against main reference currencies, the Ringgit still performed relatively well**



Source: Bank for International Settlements  
 Note: Increases in the index denote appreciation of the currency

**Figure 22. Reserves are declining, but remain above the levels prior to the Eurozone crisis**



Source: IMF  
 Note: Net Forward Position represents aggregate short and long positions in forwards and futures in foreign currencies vis-à-vis the domestic currency (incl. the forward leg of currency swaps)

**26. Net capital outflows lead to a marginal depletion of official reserves.** The deterioration in the current account balance, continued outflows in the financial account and large errors and omissions led to overall capital outflows for a fourth consecutive quarter. To accommodate outflows, BNM first unwound its net forward position, but in September and October resorted to using official reserve assets, which declined to USD128.1 billion as of end-October 2014 (Figure 22) compared to USD137.1 billion as of end-October 2013. This trend is in line with other countries in the region as foreign exchange reserve accumulation recently slowed considerably in Korea, Indonesia and India and declined in other ASEAN countries. At this stage, Malaysia's current reserve level is sufficient to finance 8.8 months of retained imports<sup>5</sup> and equals 120 percent of short-term external debt.

**Near-term outlook remains positive despite tightening domestic and external conditions**

**27. Malaysia's economic performance in 2015 and 2016 is expected to remain solid, despite risks from the weakening global environment and tightening fiscal and monetary conditions at home.** The outlook for the Malaysian economy is underpinned by three trends: (i) significantly lower crude oil prices, (ii) tighter domestic conditions as policy makers at home and abroad gradually withdraw fiscal and monetary policy support; and (iii) slower momentum in non-

<sup>4</sup> Until December, 1, examples include the Colombian Peso (-16.1 percent year-to-date, -11.8 percent over three months), Peru (-4.0 and -1.0 percent, respectively), and Mexico (-6.2 and -3.6 percent, respectively).  
<sup>5</sup> Retained imports are gross imports less re-exports.

commodity exports reflecting both lower strength of demand and possible supply constraints. These developments constrain the key drivers in Malaysia's growth to some extent, although the underlying growth story remains solid.

**28. On a year-on-year basis Malaysia is expected to register real GDP growth of 5.7 percent in 2014, decelerating to 4.7 percent in 2015 before normalizing to 5.1 percent in 2016.** As consumers adjust to the implementation of the GST and the elimination of fuel subsidies, as well as further moderation in credit growth, private consumption will slow somewhat. Fixed investment will expand at a moderate pace due to the decline in commodity prices that is likely to reduce capital expenditures in the oil and gas industry. Exports will continue to expand in line with the gradual global recovery, but the contribution of external demand will return to negative territory especially as firms import parts and components to rebuild inventories depleted in 2013 and 2014. Domestic demand is expected to contribute 5.7 and 5.5 percentage points to GDP growth in 2014 and 2015, down from 5.8 percentage points in 2013. Finally, the higher base masks a similar pace of growth in both periods (2014: 4.8 percent q/q saar average; 2015: 4.9 percent). The World Bank's forecast for 2014 is in line with the median consensus forecast and that for 2015 somewhat below the median estimate (Figure 23). Table 1 and Table 2 present a summary of the forecasts.

**Table 1. GDP growth is expected to be maintained in 2014 and beyond...**

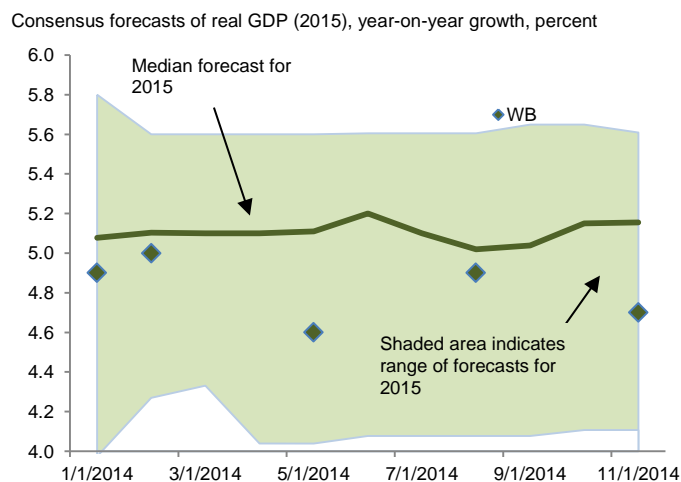
Year-on-Year Growth Rates, percent	Year-on-Year Growth Rates, percent			
	2013	2014f	2015f	2016f
GDP	4.7	5.7	4.7	5.1
Domestic demand	6.4	6.1	5.9	6.4
Final consumption	7.0	6.6	5.7	6.1
Private sector	7.2	6.9	5.9	6.5
Public sector	6.3	5.6	4.7	4.7
GFCF	8.5	6.0	5.9	6.6
External demand	-12.6	0.9	-11.6	-17.1
Exports of G&S	0.6	5.4	4.2	5.3
Imports of G&S	2.0	5.8	5.5	6.8

**Table 2. ...as exports compensate for weaker domestic demand in the near term**

Contributions to GDP Growth, percentage points	Contributions to GDP Growth, percentage points			
	2013	2014f	2015f	2016f
GDP	4.7	5.7	4.7	5.1
Domestic demand	5.8	5.7	5.5	6.1
Final consumption	4.5	4.3	3.7	4.1
Private sector	3.6	3.6	3.1	3.5
Public sector	0.8	0.7	0.6	0.6
GFCF	2.3	1.6	1.6	1.8
Change in Stocks	-0.9	-0.3	0.1	0.1
External demand	-1.1	0.1	-0.8	-1.0
Exports of G&S	0.6	4.9	3.8	4.7
Imports of G&S	-1.7	-4.8	-4.6	-5.7

Source: CEIC, DOSM, World Bank staff calculations and projections; f=forecast

**Figure 23. Forecasts for 2015 take into account the impact of the recent decline in oil prices**



Source: Consensus Economics, World Bank staff calculations and projections

**Figure 24. Inflation is expected to pick up slightly in 2015 before moderating down in 2016**



Source: CEIC, DOSM, World Bank staff projections

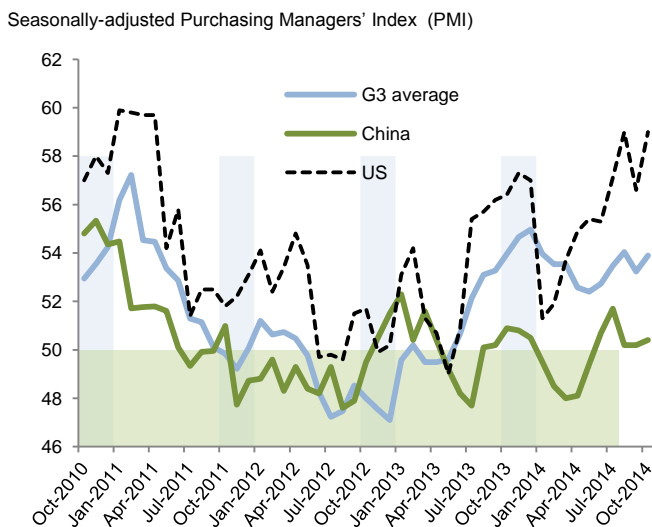


**29. The introduction of the GST is expected to lead to a slight pick-up in inflation in 2015.** Malaysia's headline inflation rate is projected to increase from an estimated 3.2 percent in 2014 to 3.8 percent in 2015, before moderating to 2.8 percent in 2016 (Figure 24). The forecast has been revised downwards for 2014 due to the delay in fuel subsidy cuts, which only took place in October and were followed by lower commodity prices. In 2014-2016, the projected inflation rate is higher than the average rate observed during the 2002-2007 period (2.2 percent) due to the implementation of the GST and the elimination of fuel subsidies in late 2013 and 2014.

### Uneven global recovery constrains growth momentum

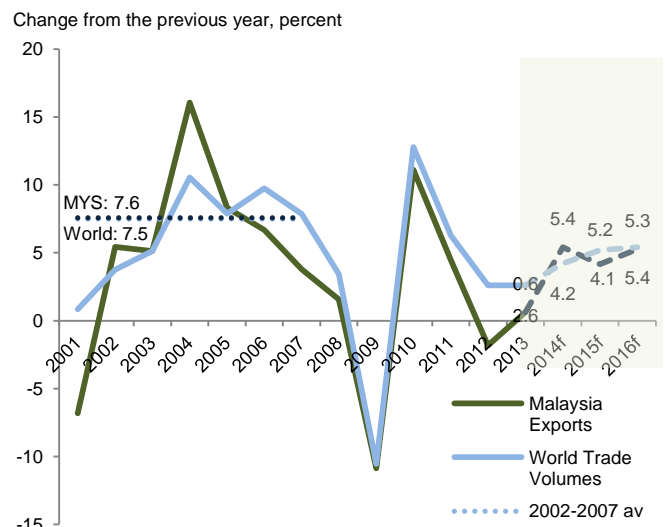
**30. The uneven and gradual recovery in advanced economies increases the downside risks to global growth and to the Malaysian economy.** On average, Purchasing Managers' Indices (PMIs) in the G3 economies remained largely in growth territory, but masked diverging trends (Figure 25). While the US showed moderate signs of expansion (3Q 2014: +3.5 percent q/q saar) and is expected to grow steadily (+1.8 percent in 2014 and 2.8 percent in 2015)<sup>6</sup>, momentum has weakened in the Euro area and Japan. In the Euro area, GDP is projected to grow by 1.1 percent in 2014 and 1.4 percent in 2015 (2013: -0.4 percent). Though expected to expand by 1.7 percent in 2014 and 1.4 percent in 2015, Japan's economy shrank for the last two consecutive quarters. This performance in G3 economies is occurring in tandem with a structural slowdown in China and change in its import patterns. China's PMI declined to near-negative territory in the third quarter (Figure 25), and despite the recent cut of interest rates, growth is expected to slow down to 7.7 percent in 2014 and 7.5 percent in 2015 (+11.6 percent average in 2003-07). Prospects in the large ASEAN economies remain muted, and as a result, the difference in the average growth rate between developing and advanced economies is expected to narrow to 3.1 percentage points in 2014 and 2015, compared to 4.3 pp in 2011.

**Figure 25. The PMIs of the US and other G3 economies diverge in 2014**



Source: Bloomberg (Japan, Euro area), HSBC (China), CEIC (US)  
 Note: Simple average of PMIs for US, Euro area and Japan.  
 Scores above 50 reflect expansion

**Figure 26. World trade volumes are not expected to return to pre-crisis levels in the medium-term**



Source: CEIC, World Bank DECPG and World Bank staff calculations  
 Note: World Bank forecasts as of June 2014

**31. The export recovery will continue but at a more moderate pace.** Commodity exports are likely to remain sluggish, as the price of palm oil is not expected to pick up while prices of LNG should follow crude oil prices lower. Volumes of LNG exports to Japan are however expected to remain stable, given that the country has yet to reactivate its nuclear capacity. Although Malaysia's E&E sector may have resumed growth thanks to the restructuring of labor costs in Singapore, joining Chinese supply chains, and higher demand for LEDs, exports of E&E will be hard-pressed to experience high growth in 2015 as most additional investment in the sector appears to be expansion of existing firms. Overall, exports of goods and services are expected to grow by 4.1 percent in 2015 compared to 2014, down from 5.2 percent this year. This compares with a 2011-2013 average export growth rate of 1.1 percent. Exports are

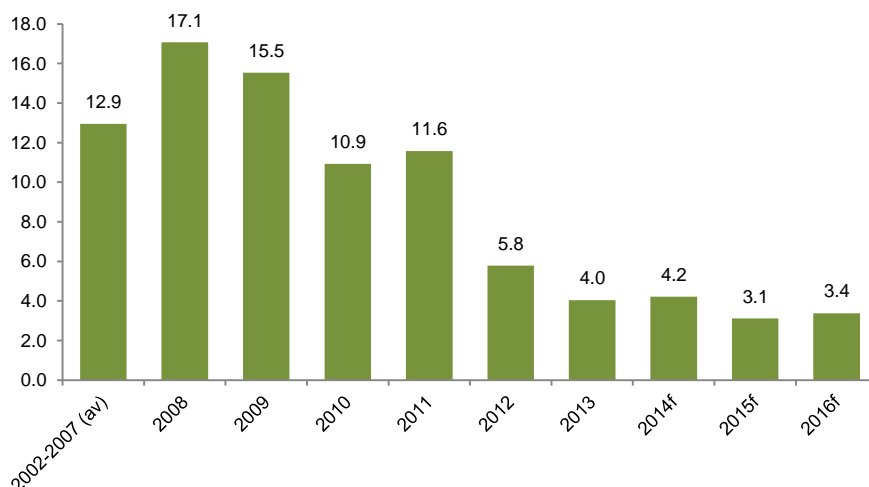
<sup>6</sup> Unless noted otherwise, all GDP forecasts are from the June 2014 Global Economic Prospects (World Bank 2014).

expected to converge to the global trade average by 2016 (Figure 26). Upsides to this forecast would largely depend on the trajectory of advanced economies and on the pace with which new export-oriented investments in mining, E&E and services start to come online.

**32. The current account is expected to remain in surplus, albeit a dwindling one.** The current account surplus is expected to narrow from 4.2 percent in 2014 to 3.1 percent of GDP in 2015 due to the decline in commodity prices amid continued growth in investments and firms' rebuilding inventories, picking up slightly to 3.4 percent in 2016 (Figure 27). Moderate external demand and a continuing weakness of oil and gas prices suggest a decline in the trade balance. This will be somewhat balanced by domestic demand moderation. Over a longer period, a strong investment pipeline (including large-scale investment projects as under the RAPID program) will continue to exercise pressures on the current account. Although policy makers have in the past mulled stretching out some projects with high import content, current account concerns should not delay productive investments such as the MRT. Factor payments, which contributed a considerable part to the recent current account decline, are more difficult to predict. However, large domestic funds play an important role in foreign investment and could step in to prevent primary income payments from further deterioration. A weakening exchange rate may also create incentives for profit repatriation and associated uptakes in foreign investment income in the short run.

**Figure 27. The current account is expected to remain in surplus**

Current account balance, as a percent of GDP



Source: CEIC, DOSM, and World Bank staff projections

### Domestic demand slows but remains a key driver of growth

**33. Gross fixed capital formation will stabilize as higher import prices and low commodity prices exert downward pressure.** As the end of the 10<sup>th</sup> Malaysia Plan approaches in mid-2015 and work proceeds on mega projects such as the new MRT lines, gross fixed capital formation should continue to make an important contribution to growth. Nonetheless, the unfavorable exchange rate is likely to put pressure on machinery investment, and declining oil prices is likely to delay some energy-related investments. Meanwhile, construction is likely to maintain a stable contribution to growth, and overall private investment growth is likely to moderate slightly to 5.9 percent, from 6.0 percent in 2014.

**34. Private consumption will moderate in response to the GST implementation, softer commodity prices and moderately tighter credit.** The implementation of the GST in April 2015 is widely expected to exert some inflationary pressure on the goods basket. Despite the long list of exempted and zero-rated items, households are expected to ramp up spending in the first quarter and adjust to new price realities during the rest of the year. In addition, the muted prospects for agricultural commodity prices will limit the incomes and purchasing power of smallholder households that have high marginal propensity to consume. Finally, credit growth should continue to moderate due to macro-financial measures put in place in the past years and tighter liquidity conditions. Labor markets remain strong and the Government has increased the amount of cash transfers to BR1M-eligible households, which will partly mitigate these effects. Moreover, monetary policy is likely to remain supportive into next year, limiting the

deceleration of credit growth. Overall, private consumption is expected to expand by 5.9 percent in 2015 and contribute 3.1 percentage points to growth.

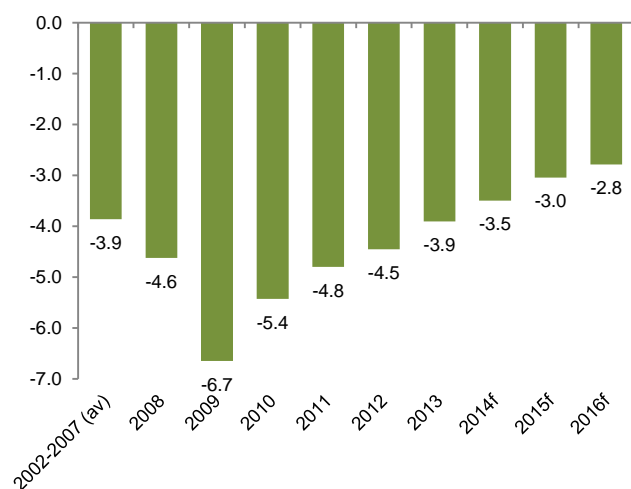
### Lower oil prices pose opportunities and risks to fiscal consolidation

**35. Falling global oil prices initially provide more fiscal space to the government, but revenues may decline more than expenditures if prices do not recover somewhat from mid-December levels.** Oil-related revenues in 2015 will be constrained by a new normal of lower crude oil prices and are very likely to come in below budget estimates. However, lower oil prices will also reduce the expenses in subsidizing LPG and diesel for public transportation, and most importantly made possible the removal of gasoline subsidies beginning December 1<sup>st</sup>. These developments are estimated to save the government RM10 – 12 billion, which, assuming PETRONAS will not change its dividend policy, is more than the estimated revenue loss in a baseline scenario where oil averages USD75 per barrel in 2015 (vs. USD61 per barrel on December 15, 2014). Accordingly, under current assumptions the government is well-placed to meet its 2015 target of 3.0 percent of GDP (Figure 28), though the outlook for further consolidation in 2016 has become more challenging. Issue Note A considers the implications of lower oil prices and highlights the risks of further price declines.

**36. The 2015 budget promises further consolidation of expenditures, but overly optimistic expenditure targets on emoluments threaten recent gains in budget credibility.** The government reaffirmed its commitment to achieving a budget deficit of 3.0 percent of GDP in 2015, in line with its target for a balanced budget by 2020. This is premised on the higher growth of revenues (4.5 percent) relative to current expenditures (1.1 percent). While the Government is assumed to meet its headline target, the projected growth in personnel spending of 0.5 percent is unrealistic, since bonuses to civil servants announced in the budget speech were not included in the budget estimates. The government will need to maintain a tight rein over emolument expenditure, or risk eroding the budget credibility built up over the past two years.

**Figure 28. The federal balance is expected to improve**

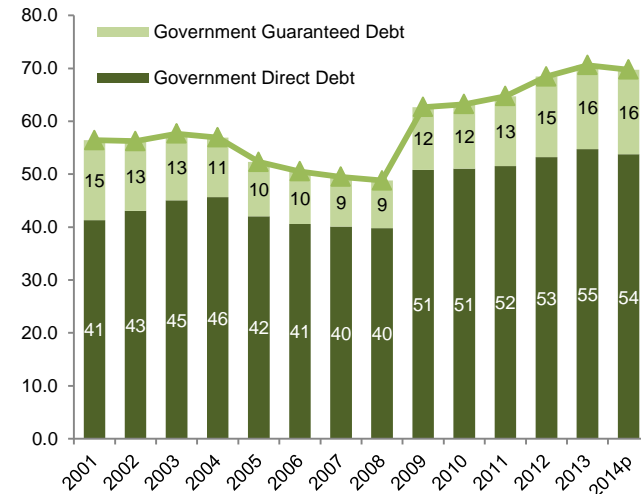
Balance of the Federal Government, percent of GDP



Source: CEIC, MoF, and World Bank staff calculations and projections

**Figure 29. Debt levels are expected to decline in 2014**

Ratio to GDP, percent



Source: CEIC, MoF, World Bank staff projections

**37. There is limited potential for upsides to revenues despite the introduction of the GST.** Introduced to broaden the tax base and diversify the sources of government revenue away from oil-related sources, the implementation of the GST in April 2015 is expected to bring in additional revenues of only RM690 million in its first 9 months, due to the long list of exemptions and zero-rated items and other offsets. Significant upside to other tax revenues is unlikely considering lower oil prices and additional personal and corporate income tax breaks coming online. The revenue-to-GDP ratio is in fact projected to decline to 20.0 percent in 2015 from 21.6 percent in 2013. Meeting the deficit target therefore will have to come from expenditure restraint.

**38. As a result of consolidation, debt levels are expected to decline.** Declining deficit levels are expected to lead to a reduction in the ratio of federal government debt to GDP from 54.7 to 53.7 percent, while contingent liabilities are also expected to decrease modestly (Figure 29). Long-term fiscal sustainability will require continuing on the path of consolidation, while carefully monitoring and managing contingent liabilities and other sources of fiscal risk.<sup>7</sup>

### Risks to the outlook have increased

**39. The balance of risks to Malaysia's growth outlook remains on the downside, as a more challenging year lies ahead.** Although the overall global growth outlook remains positive, more pronounced slowdowns in China and the EU, as well as further declines in commodity prices are key risks going forward. Domestically, additional delays and scaling down of investment projects due to a weaker ringgit, lower commodity prices and concerns about keeping the current account in surplus cannot be ruled out and would have an effect of further slowing growth. Moreover, the fiscal and monetary policy space to react to a growth slowdown is constrained by government's commitment to fiscal consolidation and the need to manage financial risks.

**40. The full impact of normalization of US monetary policy on Malaysian financial markets is yet to be felt and simultaneous deleveraging across households and the corporate sector is a significant risk.** Malaysia has enjoyed a large presence of foreign investors in its bond market as well as access to low-cost external funding to its banks, which supported domestic credit growth. Abrupt movements in capital flows driven by normalization of US monetary policy are bound to be disruptive, as discussed in Issue Note B.

**41. Bank Negara has signaled that monetary policy will remain accommodative of growth but monetary policy tools to address downside risks to growth are constrained by narrowing interest rate differentials and the need to manage domestic financial imbalances.** Barring higher than expected inflationary pressures and financial imbalances, the Central Bank is likely to maintain its accommodative stance on growth into 2015. Nonetheless, the central bank must remain vigilant on financial imbalances, especially given that household debt remains at a high 87.1 percent of GDP as of the third quarter of 2014. As loans for residential property has been the fastest growing segment of household credits over the last years, an outright property price slump might put household balance sheets under pressure. Moreover, as advanced economies move towards normalizing their interest rates, the resulting narrowing of the interest rate differential puts pressure for higher rates in Malaysia as well to balance capital flows.

---

<sup>7</sup> Contingent liabilities include contingent commitments under PPPs and government guarantees, among others. Non-debt liabilities include unfunded pension liabilities and non-contingent commitments under PPPs such as capital leases.

## 2. SELECTED ISSUE NOTES

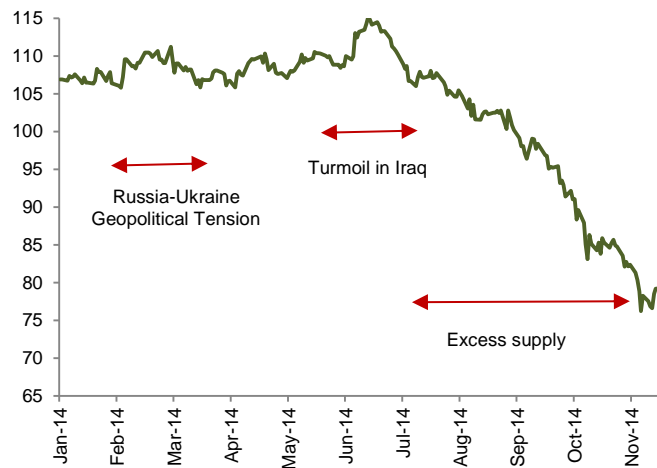
### A. Implications of lower oil prices for Malaysia's economy

#### Oil prices unlikely to recover significantly

**42. Global oil prices have edged lower since June and plummeted since October.** After supply disruptions amid geopolitical tension in the MENA region and Eastern Europe, global oil prices started a downward trajectory in June (Figure 30). The decline in oil prices accelerated in October, and by early December prices had dropped by more than 40 percent, from USD115 per barrel in June to USD65 per barrel in early December.

**Figure 30. Oil prices have been declining since June, and plummeted since October**

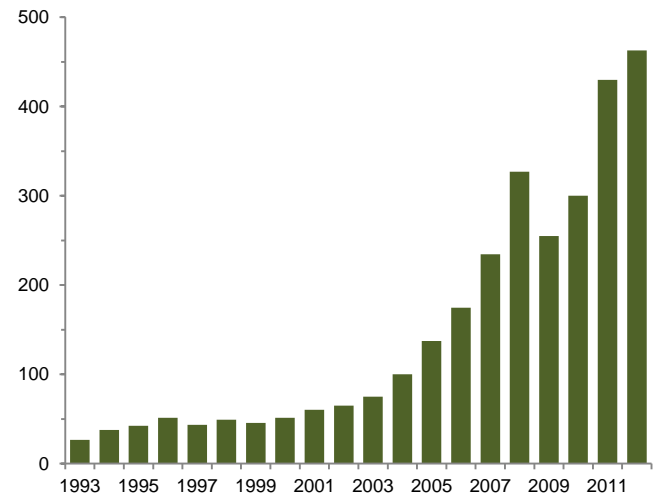
Brent crude oil prices, USD per barrel



Source: Bloomberg

**Figure 31. Capital expenditure in the energy sector is up five-fold since 2000**

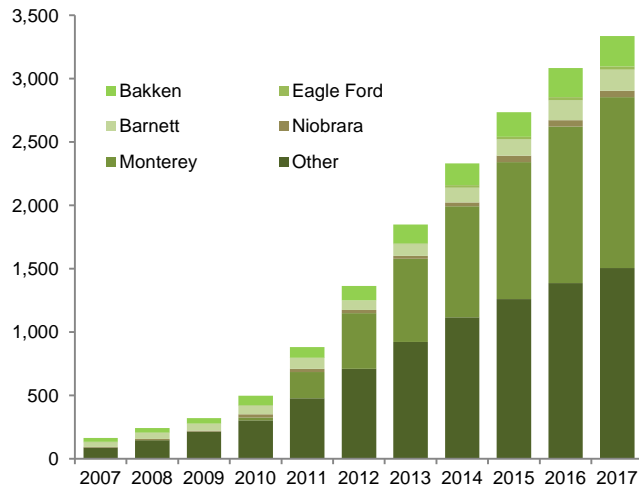
Crude oil exploration and production spending, USD billion



Source: World Bank 2013

**Figure 32. Shale oil production in the US has picked up and is projected to increase further in the next few years**

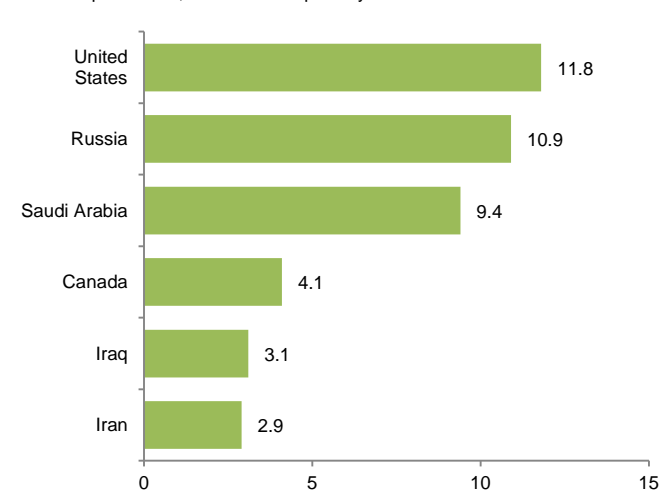
Shale oil production, thousand barrels per day



Source: US Energy Information Administration (EIA)

**Figure 33. The United States has emerged as the world's largest oil producer**

Crude oil production, billion barrels per day

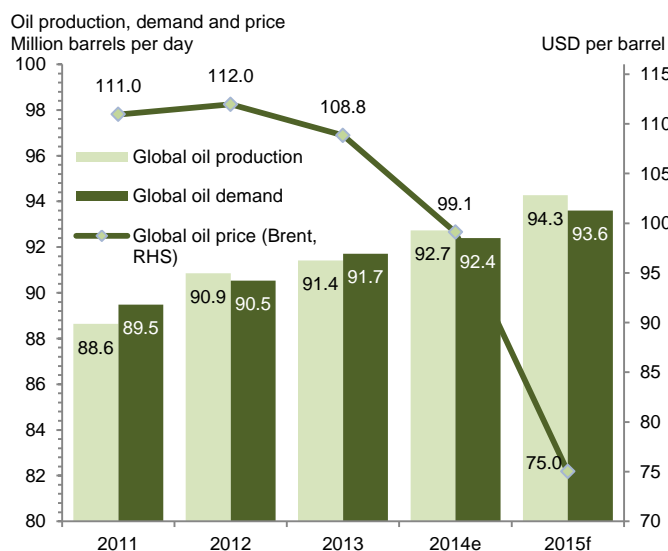


Source: International Energy Agency

**43. The decline in global oil prices was at least partly due to fundamental supply and demand factors.** High prices in the past have prompted innovative exploration techniques and the adoption of new extractive technologies to increase the output from existing wells. This is reflected in a significant ramp up in capital expenditures in exploration

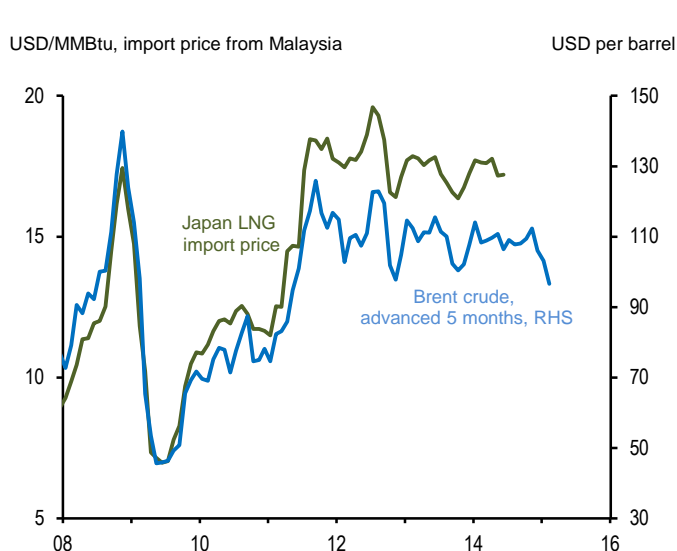
and production since the mid-2000s (Figure 31). As a result of these investments, there is a strong supply growth in oil-producing countries, particularly in the US. Thanks to the exploration of large shale oil deposits, the US has emerged as the world's largest oil producer and has since reduced its oil imports by about 4 million barrels per day (Figure 32 and Figure 33). Moreover, higher-than-expected production in countries laden with geopolitical tension, particularly Libya, has also contributed to the supply glut. As a result, EIA reported that total oil production increased by 710,000 barrels per day in 2014, which is the largest increase in three years. On the other hand, the weaker actual and anticipated global demand as well as moderation in growth in emerging market economies, coupled with reduced US oil imports is expected to result in a decline in oil demand (Figure 34).

**Figure 34. Oil production is expected to exceed demand for the second consecutive year in 2015**



Source: Bloomberg, International Energy Agency  
 Note: 2014 price is year-to-date (end-November 2014) and 2015 price is average of future prices as of end-November 2014

**Figure 35. LNG prices tend to lag crude oil prices by five months**



Source: International Energy Agency, JP Morgan

**44. Gas prices lag crude oil prices by about five months.** This is in particular the case of the Japanese Crude Cocktail that drives the pricing of liquefied natural gas in Malaysia and most of Asia (Figure 35). Therefore the impact of the recent sharp decline is only starting to be seen. This lag is due to the long-term nature of gas contracts, which contain provisions to manage volatility but are ultimately tied to crude oil prices.

**45. Although current levels may reflect a degree of overshooting and some recovery is expected in 2015, oil prices are likely to remain well below the levels registered in the past three years.** This analysis assumes oil prices to average USD75 per barrel in 2015, a decline of 25 percent from an average of USD97-100 for 2014. Citibank projects a range of USD 70-90 for the coming years. These projections reflect expectations that production from non-OPEC countries (especially the US and Canada) will increase further, while production in OPEC countries remains stable given the decision during the OPEC oil ministers meeting in November to maintain production ceilings of 30 million barrels per day. Demand for oil is expected to increase more slowly than the increase in oil supply due to the weak economic recovery in advanced economies outside the US (which is relying increasingly on domestic sources of energy), and China's structural slowdown. In addition, demand will be further dampened by the rise of highly efficient vehicles, such as hybrid and electrically-powered vehicles, as well as switching from gasoline to natural gas in transportation.

**46. Risks to the current forecast are on the downside.** The forecast used in this analysis faces downside risks as futures markets point to prices not exceeding USD70 in 2015. Further declines cannot be ruled out given diminished impact of geopolitical risks, the realization of the full impact of OPEC's reluctance to take action (which some have suggested are part of a price war for market share), and weaker than expected growth in advanced and emerging economies. On the other hand, shale oil production and deep water explorations may cease to be profitable in a low price environment (observers point to break-even points between USD40 and 70 per barrel), and the return of geopolitical risks and better-than-expected growth in China or the EU could also lead to a pick-up in prices.

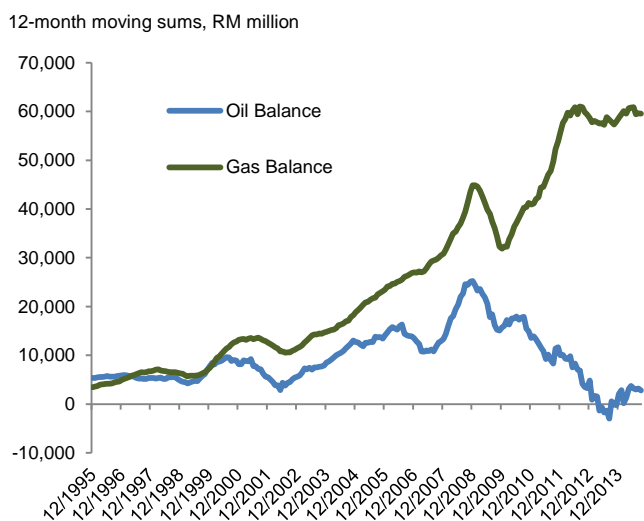
## Muted impact on the current account

**47. Lower global oil prices are likely to have a limited impact on current account.** On the one hand, as a net exporter of commodities, Malaysia stands to lose from lower prices for energy commodities. On the other hand, lower oil prices may ultimately support global demand through higher discretionary incomes. In addition, the real effective exchange rate may weaken compared to trading partners given the negative terms-of-trade shock of lower oil prices. Both of these factors would provide a boost to manufactured exports, which correspond to slightly more than 70 percent of total trade.

**48. With respect to energy trade, it is important to first note that Malaysia's surplus in crude oil trade is close to zero** (Figure 36). Therefore, changes in oil prices are in principle unlikely to have a material impact on the crude oil trade balance. Moreover, PETRONAS recently announced plans to increase production at its Gumusut-Kakap oilfield, with a report by Nomura suggesting that production could increase by about ten percent of current production levels (currently about 560,000 barrels per day). Thus next year's surplus in crude oil is likely to be somewhat higher.

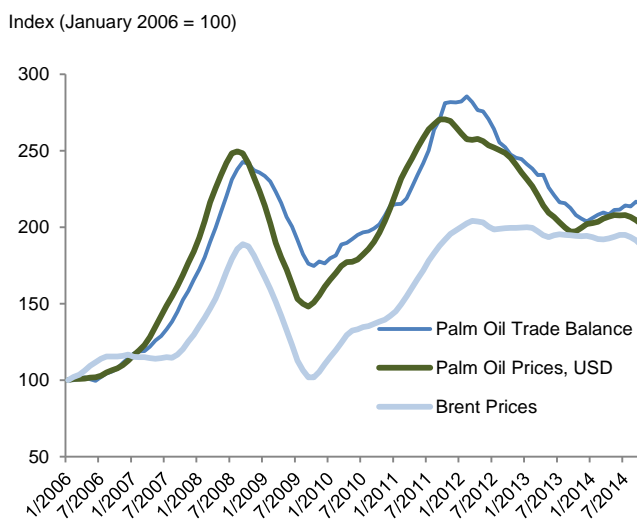
**49. On the other hand, the gas balance contributed about RM60 billion to Malaysia's trade surplus in the previous 12 months.** A 25 percent decline in prices compared to the average for 2014, which is expected given the high correlation between LNG and crude oil prices (see Figure 35 above) would therefore be expected to reduce the LNG trade surplus by about RM15 billion. Recent investments may also lead to higher volumes of production in LNG in 2015 and 2016, thus partly offsetting the negative impact on prices.

**Figure 36. The trade balance in LNG is a key contributor to the current account**



Source: CEIC, World Bank staff calculations

**Figure 37. The price of palm oil has been correlated to that of crude oil and the palm oil trade balance**



Source: CEIC, Bloomberg

**50. Palm oil prices, and the palm oil trade balance, are correlated with crude oil prices** (Figure 37). Baffes and Dennis (2013) find that palm oil is the food crop whose price is most closely linked to crude oil prices. The authors estimate that on average, a 10 percent increase in the price of crude oil is associated with a 5 percent increase in the price of crude palm oil. In 2014, prices have been declining from a high of about RM2,800 to a low of RM2,059 in September, stabilizing around RM 2,179 per ton as of October. The decline has been caused mainly by higher production in Indonesia and stagnant demand in consuming countries, but these cyclical factors have masked structural issues besetting the industry, which is the ongoing regional competition. The palm oil surplus contributes about RM46 billion to the current account. Considering that palm oil prices started coming down before crude oil prices and that the relationship between palm oil prices and crude oil prices is likely to be diminished at low levels, a 25 percent decline in crude oil prices in 2015 would translate into a 8-10 percent decline in palm oil prices, or a decline of up to RM4.6 billion in the trade balance.

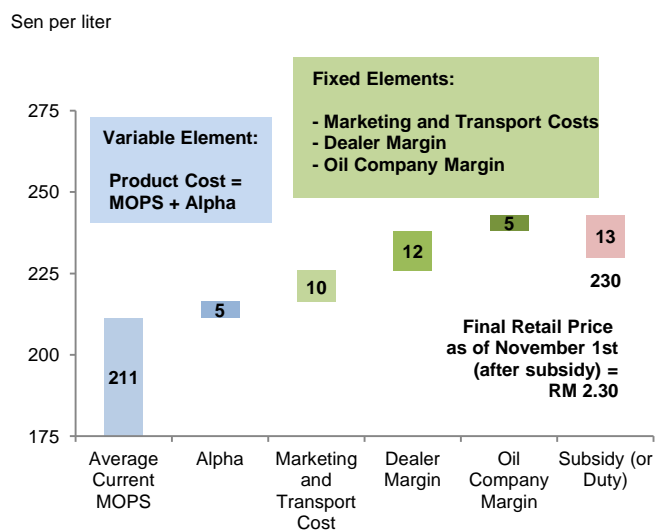
51. Therefore, the declines in LNG and palm oil trade balances suggest a comfortable estimate for the negative impact of lower commodity prices of RM20 billion or 1.7 percent of projected 2015 GDP. This compares with a projected current account balance before the decline in oil prices of about 4 percent of GDP. Therefore, even if the impact of lower oil prices fully materializes and is not offset by higher exports of manufactured goods, higher volumes of energy exports, or lower levels of imports, the current account is still likely to remain in surplus in 2015. The World Bank's current account projection of 3.1 percent of GDP for 2015 assumes modest volume growth in oil and natural gas exports, and slower imports of capital goods as investments in the oil and gas sector respond to lower prices, and investments in other parts of the economy respond to the weaker exchange rate. Given these levels, the scenario where there is a risk of the current account falling into deficit includes both even larger declines in commodity prices, but also higher levels of investment (and attendant higher imports of capital goods) than currently anticipated.

### Fiscal impact positive – if prices do not fall further

#### Lower oil prices allowed the elimination of subsidies

52. Until recently Malaysia had spent significant amounts in fuel subsidies. Malaysia was estimated to spend 1.7 percent of GDP in energy subsidies, most of it on oil (IEA, 2014)<sup>8</sup>. The overall subsidy bill, including cash transfers, in 2014 accounted for RM40.6 billion or 18 percent of total operating expenditure. For 2015, the government had allocated RM37.7 billion for subsidies of all kinds and BR1M cash assistance estimated at about RM5 billion. Of the remaining amount, RM10-14 billion are estimated to have been allocated towards fuel subsidies.

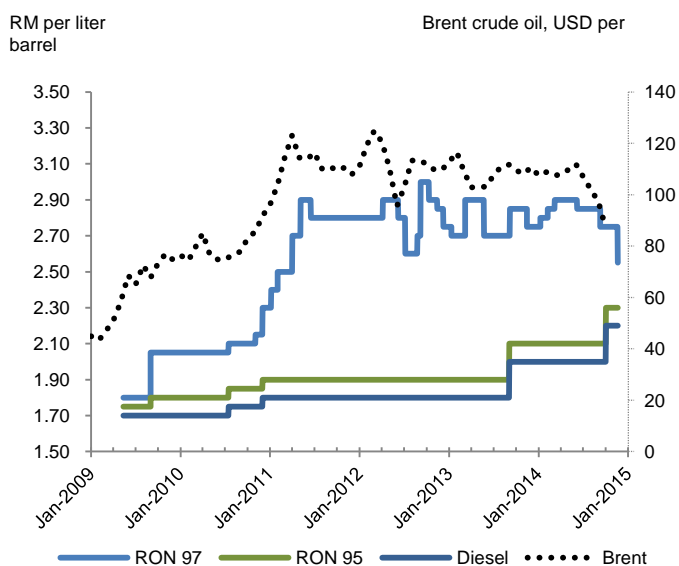
Figure 38. Components of the automatic pricing mechanism for RON95 in Peninsular Malaysia



Source: Authors, based on the Ministry of Domestic Trade and Consumer Affairs

Note: MOPS refers to the Mean of Platts Singapore, the daily average of all trading transactions between buyers and sellers of petroleum products. Alpha refers to the difference between MOPS and the actual purchase price by oil retailers

Figure 39. Retail and market prices of fuel in Malaysia



Source: World Bank staff calculations, DECPG

53. Malaysia seized the opportunity of the decline in oil prices to completely abolish blanket subsidies for fuel without having to make any adjustment to retail pump prices. Malaysia abolished subsidies for RON95 motor gasoline and diesel beginning December 1<sup>st</sup> and opted for a managed float system reflecting market prices. Under the new structure, the ministry will monitor average fuel prices (based on MOPS refinery prices) for the first 19 days of each month (Figure 38). If there is a material change in prices from the previous period, the pump price will be revised for the following month. Pricing for RON97 has been set in this manner since January 2010. Based on average prices from

<sup>8</sup> International Energy Agency (IEA) Online Database. Available at <http://www.iea.org/subsidy/index.html>



November 1-19, the price of RON95 dropped by 4 cents to RM2.26/liter beginning December 1st, while diesel increased by 3 cents to RM2.23/liter. RON97 prices declined by 9 cents to RM2.46/liter (Figure 39).

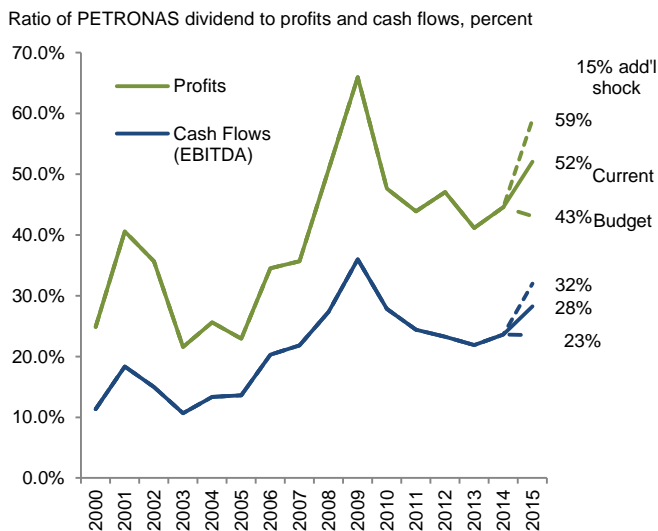
**54. The Ministry of Finance has stated that it may re-introduce some form of fuel subsidy if global oil prices rise above USD80.<sup>9</sup>** However, new subsidies would be more targeted and may be based on income levels. Prior to abolishing the subsidies completely, the government was expected to introduce such an income-based tiered subsidy system.

**55. For now, subsidies remain for LPG (Liquefied Petroleum Gas) and diesel for public transport and fishermen.** Nevertheless the Government has indicated that it will gradually reduce these subsidies as well. Estimates based on the fiscal savings from the previous round of subsidy cuts in 2013 suggest the subsidies to LPG and diesel for transport could amount to RM2-4 billion.

**56. Overall, expenditures are expected to be reduced by RM 10 – 12 billion in 2015 due to lower oil prices.** Based on overall energy subsidies of approximately RM12-14 billion, earlier estimates of savings from subsidy cuts and the impact of lower oil prices on the remaining LPG and diesel subsidies, it is estimated that savings could be in the order of RM10-12 billion in 2015. This analysis uses the mid-point of the RM10-12 billion – RM 11 billion – as a baseline estimate. This amount is lower for example than CIMB's estimate of RM12 billion. It assumes that the entire amount of fuel subsidies will be saved, as well as lower expenditure on LPG and diesel subsidies.

*Fixed PETRONAS dividend limits revenue losses in the short run*

**Figure 40. Estimated share of PETRONAS profits and operating cash flow paid as dividends to the budget**



Source: PETRONAS financial statements, MoF (dividend), World Bank staff calculations and projections  
 Note: From 2000 to 2010, years correspond to PETRONAS' previous financial year. For 2011-2013, years correspond to calendar years

**Table 3. Analysis of the impact of lower oil prices on the fiscal position**

RM million, except as indicated

	2015 (Budget)	2015 (Current)	2015 (Additional shock)
Fuel subsidies (RM)	11,000	-	-
Oil revenues (RM)	62,414	54,465	50,080
PETRONAS dividend (RM)	27,000	27,000	27,000
Net gain (loss) vs. budget (RM)	-	3,051	(1,334)
Oil Price Assumption (Brent, USD/bbl)	95	75	64
PETRONAS Dividend (% of profits)	43	50	59
Oil Price Assumption (Tapis, USD/bbl)	105	83	74

Source: CIMB, MoF, World Bank DECPG, World Bank staff calculations and projections  
 Note: Current price is December 2015 future as of November 28, 2014. Additional shock is a further reduction of 10 percent

**57. Low oil prices would also have an adverse impact on government revenues, given that close to 30 percent of total revenues are oil-related.** Because the dividend from national oil company PETRONAS (which is estimated to account for over 40 percent of oil revenues in 2015) is fixed as a matter of policy, the elasticity of oil revenues to oil prices tends to be lower compared to oil-related expenditures (a 10 percent decline in oil prices is estimated to lead to a 3 percent drop in oil revenues, based on a simple econometric estimation). As PETRONAS' net income is depends on oil prices, maintaining the current dividend level of RM27 billion would take the ratio of dividends to profits well above

<sup>9</sup> Deputy Finance Ministers Datuk Ahmad Maslan and Datuk Chua Tee Hong were quoted saying the Government may introduce some form of fuel subsidy under a targeted scheme if global oil price rises above USD80 a barrel. See <http://www.themalaymailonline.com/malaysia/article/fuel-subsidies-could-return-if-oil-goes-over-us80-deputy-minister-says> and <http://themalaysianreserve.com/main/news/corporate-malaysia/7795-fuel-subsidy-to-return-if-crude-oil-prices-soar>

the target of 30 percent (Figure 40) and possibly affect investment decisions.<sup>10</sup> Moreover, in practice there is a correlation of 0.75 between global oil price and PETRONAS dividend to the government, suggesting that even this component could be adjusted if oil prices remain at current levels or decline further.

**58. Assuming prices of approximately USD75 per barrel of Brent crude oil in 2015, oil revenues are expected to decline by approximately RM8 billion.**<sup>11</sup> Applying the implicit 21 percent reduction in oil prices vis-à-vis budget estimates to the portion of oil revenues other than PETRONAS dividends yields an estimate of revenue losses around RM8 billion. This estimate is conservative, as it likely exaggerates the impact of oil prices on oil-related tax revenues by assuming an elasticity of one between oil prices and the reduction of oil-related revenues, except for the PETRONAS dividend.

*Deficit reduction still safe for now, but risks are elevated*

**59. The baseline scenario suggests that, based on current forecasts, lower oil prices are a small net positive development for the fiscal position.** Subtracting the RM8 billion losses from savings of RM 10 - 12 billion from fuel subsidies, the net impact on the fiscal position based on current prices is positive at around RM 2-4 billion or 0.2 percent of GDP (Table 3). This provides a small but important buffer to allow the government to achieve its target deficit of 3.0 percent of GDP in 2015.

**60. The risks of a further decline in oil prices – and related fiscal slippages – cannot be ruled out.** Spot prices were at USD65 per barrel as of early December, and if these prices were to persist or decline further rather than recover as in the baseline assumptions, the fiscal implications may be negative. An estimate of the implications of a decline of oil prices to USD64 per barrel (a 15 percent decline from baseline) suggests that revenues can fall by an additional RM 4.5 billion, erasing any fiscal savings and leading to a net negative outcome (Table 3). Further declines would also put further pressure on PETRONAS by elevating the share of profits paid as dividends to close to 60 percent (Figure 40).

---

<sup>10</sup> PETRONAS president and Group CEO Tan Sri Shamsul Azhar Abbas said PETRONAS is looking to cut as much as 15 -20 percent of its capital expenditure (capex) budget for next year and was quoted as saying that "If we are to maintain our dividend contribution or higher, it would significantly impact our growth plans." (The Star, 29 November 2014)

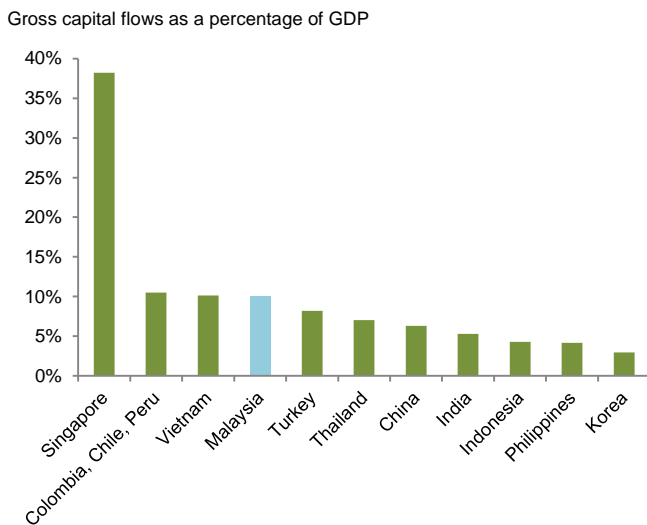
<sup>11</sup> In the 2015 budget, the Government assumed a decline in Tapis crude oil prices of approximately 5 percent, from USD110 per barrel in 2014 to USD105 per barrel in 2015 (Estimates of Federal Government's Revenues, p. 23). Considering the correlation between Tapis and Brent prices, this implied a price for Brent of about USD 95 per barrel in 2015. Given the projection of USD 75 per barrel used here, this is 21 percent lower.

## B. Flows and ebbs: capital flows to Malaysia and their macro-financial implications

### Fickle capital flows pose policy challenges

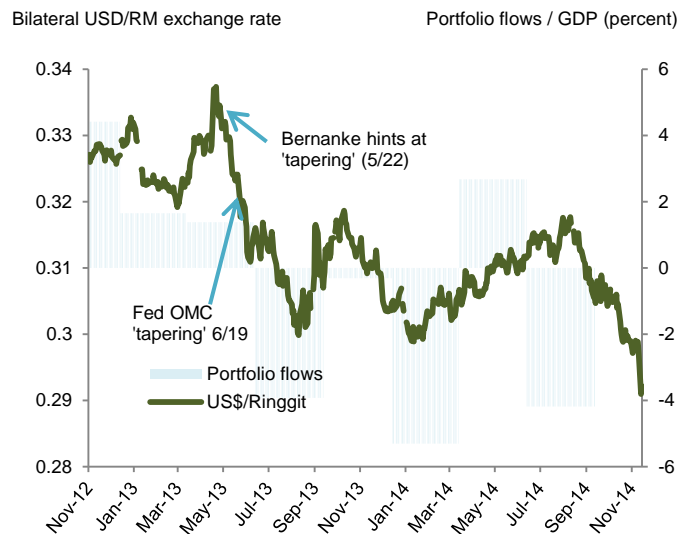
**61. As a financially integrated economy, Malaysia is influenced by developments in global capital markets.** Malaysia receives substantial capital inflows from the rest of the world (see Figure 41). Although it has been an exporter of capital on a net basis for most of the early 2000s, reflecting the surplus in the current account, strong portfolio inflows after 2009 essentially led to a balanced net financial account. Portfolio flows have thus increasingly driven swings in overall capital flows, reflecting that they are more volatile than FDI, which has historically been the mainstay of capital flows to Malaysia.<sup>12</sup> About a third of the USD 180 billion in outstanding portfolio liabilities are held by US investors, who considerably increased their holdings in early 2013 in view of QE3.<sup>13</sup> The latter was announced by the US Federal Reserve in September 2012 with the goal to raise prices of safe domestic assets, thereby pushing investors into more risky asset classes in search for higher yield.<sup>14</sup> While such external “push” factors thus influence capital flows and associated liquidity in Malaysia, domestic “pull” factors such as high financial openness, the depth of the domestic financial system and strong macroeconomic management are attractive as well.

**Figure 41. Capital flows in Malaysia are on the high side of the EME-spectrum**



Source: World Bank staff calculations based on IFS and Haver.  
Note: Colombia, Chile, Peru refers to the average of the three countries

**Figure 42. Malaysian Ringgit at lowest level since February 2010 amid global portfolio re-allocations**



Source: CEIC, Haver Analytics, World Bank staff calculations

**62. Global financial developments have recently led to episodes of portfolio outflows and associated drops in the exchange rate against the US dollar.** Anticipated interest rate spreads between Malaysia and advanced economies, as well as perceived risk, are key factors driving investors' portfolio allocation. As the Fed signaled a tapering of asset purchases under QE3 in mid-2013, a portfolio re-allocation towards the US followed, along with a drop in the Ringgit/USD exchange rate (Figure 42). The recent fall in crude oil prices and the attendant shock to terms of trade, along with further signs of strength in the US economy that would keep the Fed on a path towards normalizing monetary policy, led to the most recent decline in the Ringgit.

<sup>12</sup> Within portfolio flows, especially debt flows exhibit cyclical patterns. See Levechenko and Mauro (2007) on the issue.

<sup>13</sup> Data from the IMF Coordinated Portfolio Investment Survey.

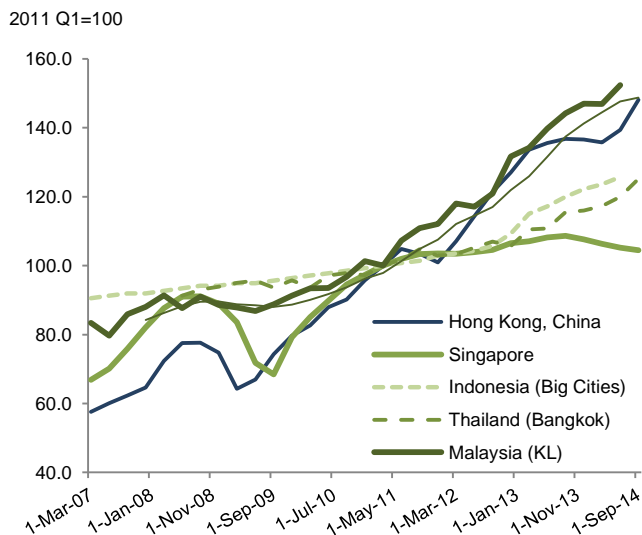
<sup>14</sup> During QE1 and QE2, the share of US portfolio holdings in Malaysia was slightly declining (while still increasing in absolute size). QE3 differed from these programs in the sense that the Fed committed to a pace of asset purchases, as opposed to a total quantity ("QE infinity") and that purchases of long-term treasuries would no longer be sterilized by sales of short-term treasuries, hence increasing the monetary base, overall liquidity and the risk premium by lowering yields of the "risk free" asset. See also Fawley and Neely (2013).

**63. Volatility is likely to persist as the US normalizes its monetary policy, posing new policy challenges that call for a better understanding how macro-financial volatilities interact in Malaysia.** This note reviews key results of previous studies on the topic and constructs vulnerability measures for financial market segments. It then explores how these vulnerabilities interact across markets and over time. Special emphasis is put on the co-movement of such vulnerabilities, which has been interpreted as “systemic stress” in the international finance literature. We finally explore how these co-movements relate to previous episodes of capital inflows. While our results are only a first step to a deeper understanding of macro-financial linkages in Malaysia, they suggest that financial volatilities have historically peaked against the background of major global events and their co-movements were often preceded by large capital inflows. Finally, we discuss policy options and challenges in such an environment.

**Capital inflows are linked, if weakly, to higher prices for certain asset classes**

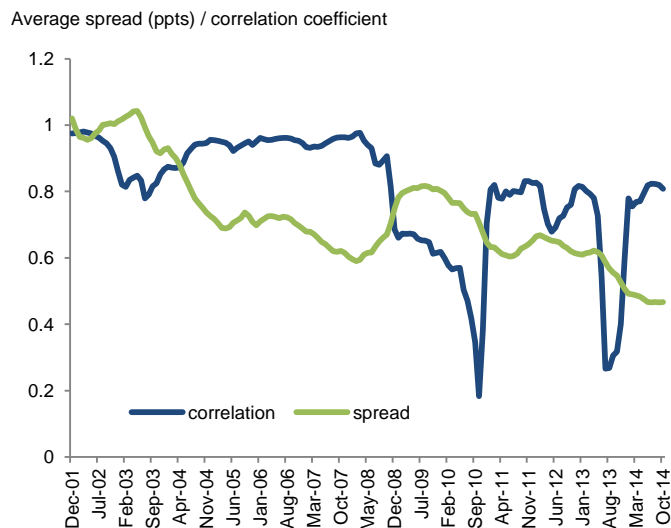
**64. Capital inflows may have put some upward pressure on house prices in Malaysia at the margin.** Capital tends to flow into specific asset classes, potentially leading to price increases in these targeted assets that go beyond levels justified by economic fundamentals. Given the rapid rate of increase in housing prices in Malaysia (Figure 43), it is natural to ask whether capital flows played a role. Recent academic research found that shocks to capital inflows, i.e. unexpected increases in foreign push factors, are found to account for 10-15 percent of overall house price changes in East Asia after 2000<sup>15</sup>. However, the effect is found to be smaller for Malaysia than for other economies such as Hong Kong, Singapore, or Korea. Moreover, Malaysia has implemented several prudential policies to curb excessive property leverage<sup>16</sup> and foreigners only constitute a small share of property transactions. Nevertheless, the effect might also operate through an indirect credit channel as capital flows to Malaysia are mostly intermediated through financial institutions which might then be willing to lend this liquidity for property purchases. In fact, residential property loans are the only household loan category recently accelerating, growing at a pace above 13 percent p.a. Similarly, non-residential property loans are the fastest growing segment of business loans.

**Figure 43. House prices have increased the most among Asian countries since 2011**



Source: Bank for International Settlements and World Bank staff estimates

**Figure 44. Correlation and spread between MGS and AAA securities (5-year maturity)**



Source: World Bank staff calculations based on BNM  
 Note: The correlation coefficient is estimated based on monthly data over a 2-year window. The spread is the average over the same time

<sup>15</sup> See Tillmann (2013), who provides the most thorough evidence on this effect. Similarly, Kim and Yang (2006, 2011) found that capital inflows do have an impact, though of limited magnitude, on domestic asset prices in Korea and four other emerging Asian economies, including Malaysia. Results from Bracke and Fidora (2008) imply that monetary policy shocks (and associated ample international liquidity) explain a large part of asset price fluctuations in the seven emerging Asian economies studied.

<sup>16</sup> Examples include increasing loan-to-value ratios, curbing the maximum tenure for mortgages, and prohibiting the offering of developer investment bond schemes.

**65. Capital inflows influence prices of securities, but pass-through from the sovereign to the private market is limited in Malaysia during stress periods.** Foreign investors play a significant role in Malaysia's government securities market. About 60 percent of the RM249 billion foreign holdings in public and private debt securities (conventional and sukuk) are MGS, another 31 percent are BNM monetary notes (incl. Islamic ones). Kuang (2008) accordingly shows a negative correlation between portfolio inflows and short-term yields. Usually, one would expect that this price increase is at least to some extent intermediated to private debt securities (PDS). But the exact pass-through of shocks to MGS to PDS is apparently limited during foreign-induced shocks in Malaysia: while the overall correlation coefficient between 5 year MGS and AAA PDS of the same maturity is 0.91, the correlation considerably broke down during major stress events in the last years. This can be seen from Figure 44 from the onset of the financial crisis and again during the US taper talk. Potential reasons for this pattern include liquidity and credit risk considerations: as MGS are considerably more liquid in secondary markets than PDS and have lower credit risk, the latter might not be a strong substitute for the former (especially for foreign investors). Furthermore, most business financing takes place through the banking system, where the monetary policy stance plays a key role. To the extent this is transmitted into the PDS market (with equity being a financing substitute for debt), other factors influence the PDS market, hence lowering its correlation to MGS.

**66. Equity prices also correlate with capital inflows but the linkage is again not straightforward.** In principle, capital inflows can also give rise to equity booms. However, over the last years, stock market developments in Malaysia were more modest than in other EMEs in the region. While equity prices strongly co-move with capital flows (correlation coefficient around 0.5), this does not necessarily imply a strong causal impact running from the latter to the former, despite the fact that recent capital outflows coincided with drops in equities.

### **If capital flows reverse, risk of asset price under-shooting gives rise to financial risks**

**67. Boom and bust externalities from capital flows raised concerns of researchers and policy makers.** If capital inflows increase asset prices, households and firms can borrow more by taking these assets as collateral. This leverage might become problematic if capital flows revert, assets lose some of their value and debtors cannot quickly deleverage (or have to take losses on fire-sales). This finance externality is not priced in by private investors and has been studied by recent academic research,<sup>17</sup> which has also given rise to renewed emphasis on macro-prudential policies among key policy makers, especially in emerging economies and at the IMF (2012).

**68. Several factors limit such boom-bust cycles in Malaysia.** As the transmission from foreign MGS investment to other segments of Malaysia's financial market is limited, the risk in foreign-induced booms in collateral asset prices seems less of a concern than in other emerging economies. Furthermore, BNM has demonstrated in the past that it is willing to accept considerable downturns of the exchange rate (despite certain stabilizing interventions). As long as there is no outright panic, this puts a limit to the sell-off of domestic assets as the drop in the exchange rate also brings down the revenue of an asset sale (in terms of foreign currency) for foreign investors. With limited borrowing in foreign currency,<sup>18</sup> these temporary exchange rate dips also do not weigh heavily on domestic firms' balance sheets exposure and the latest depreciation against the US dollar in late November / early December thus has not suspended financial intermediation or real economic activity. Finally, domestic funds (notably the employee provident fund) often mop up large foreign asset sales, thus helping to stabilize their prices.

**69. But high household debt, accelerating property loans and elevated property prices raise risks.** Despite this stabilizing policy mix, other factors raise some concern about financial stability. The level of household indebtedness is relatively high, currently approaching 90 percent of GDP and thus the highest in Asia (World Bank, 2014b). Households continue to borrow for property purchases at an accelerating pace. Real estate prices are already at an elevated level, despite price increases slowing down recently. This raises the risk that a downward correction in property prices could leave some households overleveraged. The low foreign participation in the real estate market makes it less

---

<sup>17</sup> See for example Kim and Zhang (2009), Jeanne and Korinek (2010), Korinek (2010), Bianchi (2011).

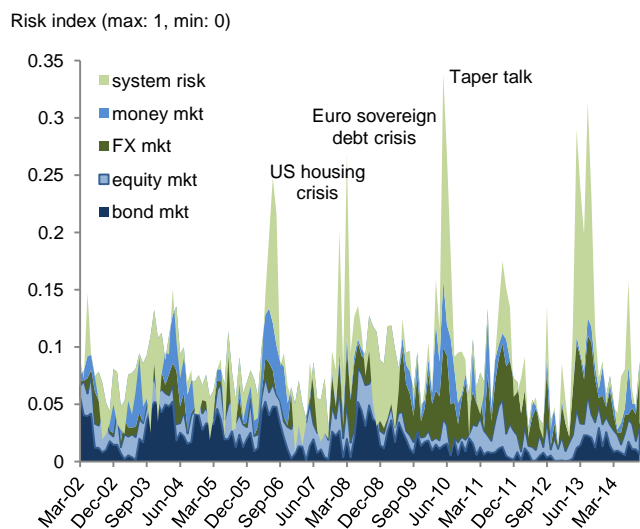
<sup>18</sup> For example, 97 percent of outstanding federal debt were denominated in Ringgit in early 2014 (Haver). For private debt securities, the latest available record for foreign currency denomination dates back to February 2011 and amounted to a negligible share of foreign holdings in debt securities (BNM).

likely that capital flow reversals will directly cause a large property price correction. However, they could kick off such a correction either directly or because capital retrenchments lead to liquidity concerns in other parts of the financial sector which will then try to liquidize property assets or mortgage loans, potentially leading to a downward spiral as households loan-to-property-values increase.

### Historically, periods of financial volatility in Malaysia were externally-driven

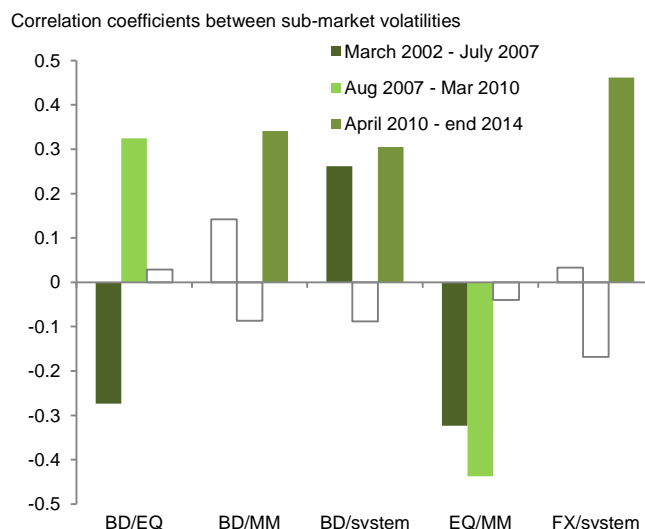
**70. One concern with capital flow volatility is the risk of contagion between financial markets.** To better understand how financial shocks might be transmitted in Malaysia, we construct a summary index for volatilities and spreads in the following financial sub-markets: the money market, sovereign bonds, equities, and the foreign exchange market (Figure 45). The measures follow the methodology of recent advancements in measuring financial vulnerabilities that have been inspired by portfolio theory.<sup>19</sup> In line with this literature, we also construct a “systemic risk” index that captures the co-movements (i.e. correlations) across the above-mentioned sub-indices. This reflects the fact that stress in one financial market segment is not necessarily of high macroeconomic concern as long as functioning financial markets can substitute away into other markets (see Holló et al, 2012; and Wacker, 2013).

**Figure 45. Financial volatility is high amid major global events**



Source: World Bank staff calculations based on Haver Analytics

**Figure 46. Correlation of volatility across market segments shifted**



Source: World Bank staff calculations

Note: Correlation coefficients that are not significantly different from 0 (at the 10 percent level of statistical significance) are depicted in white with grey contour

**71. Volatility periods in financial submarkets coincide with systemic vulnerability.** A general pattern that stands out from the vulnerability measures in Figure 45 is that whenever accumulated volatility was high, peaks were driven or potentiated by the “systemic risk” component. This highlights that extreme events in Malaysia, as a financially integrated economy, rarely happen in isolated markets but are indeed of systemic nature, often coinciding with global events. Over the last decade, we observe several peaks of financial volatility in Malaysia. First, a buildup in bond and money market volatility, potentiated by “systemic risk” in mid-2006. At this time, investors anticipated a synchronized tightening by major central banks, leading to less risk appetite, a sell-off in EMEs, and increased market volatility.<sup>20</sup> The spike in the “system risk” measure thus appropriately captures this global effect. Second, a prolonged period of elevated (but not extremely high) financial volatility can be seen over the course of the US financial crisis in

<sup>19</sup> See Holló et al. (2012) and the more recent application of this method to Colombia by Cabrera et al. (2014). The precise methodology and data is explained in Wacker (2013). The main difference to the indicator proposed by Holló et al. (2012) is the equal weight given to all sub-categories instead of constructing weights from past data. This does not require the assumption that linkages between the real and financial sector are stable over time.

<sup>20</sup> See e.g. IMF (2006) and BIS (2006).

2007/2008 where vulnerabilities remained very systemic despite a moderation of individual market volatilities (end 2008/early 2009). Third, a clear peak is visible at the Greek record-bailout in May 2010 and the height of the sovereign debt crisis in the Euro area in late 2011. And finally, volatilities peaked again when the Fed announced the tapering of its unconventional stimulus program.

**72. Correlations of volatilities across markets shifted over various episodes, showing dynamic patterns of macro-financial linkages.** To better understand the patterns of financial linkages in Malaysia, we look at correlations of our volatility indices across market segments across three sub-periods.<sup>21</sup> Sub-indices that show a statistically significant correlation for at least one of these periods are depicted in Figure 46. One observation from Figure 46 is that relatively few sub-indices show a significant correlation with each other,<sup>22</sup> in line with previous results for other countries in the literature.<sup>23</sup> In fact, for some market volatilities we would rather expect a slight negative correlation, as for bond and equity market volatilities during our first depicted period: in such “normal” times, investors can diversify and substitute their risk across different markets (“de-coupling”). However, as soon as volatilities become more systemic, as during the global financial crisis, this substitution becomes more difficult and these two asset classes start to co-move in terms of volatility (“re-coupling”).<sup>24</sup> Another finding is the spike in correlations between FX volatility and “systemic risk” during the most recent period of large portfolio flows. The overall negative correlation between volatilities in the equity and money market hints at macroeconomic policy effects as in a bank-based financial system the central bank would usually inject liquidity during downturns. In this context, the increasing correlation between money market volatilities and equity/bond volatilities over the most recent period raises the question of the continued effectiveness of monetary policy which might be worth exploring in future analysis.

### Systemic stress was preceded by high capital inflows and recently coincided with FX volatility

**73. Systemic risk increases in periods following large capital inflows.** To the extent that capital flows drive asset prices, a surge foreign capital in domestic markets might give rise to potential volatilities. In line with this reasoning, we find that the “systemic risk” measure significantly rises in periods after capital inflows (Figure 47 and Box 1). The correlation coefficient is somewhat higher for gross flows than for net flows and generally more relevant for portfolio inflows than for FDI flows: looking at Figure 47, one can see a significant correlation of several lags of portfolio flows with systemic risk, while the latter is only significantly correlated to the contemporaneous and one-quarter lagged FDI inflow. On the other hand, when aggregating all five volatility measures, they show a negative correlation with contemporaneous gross capital flows. This may be because capital is more likely to flow in when stress is low, further lowering spreads, yields, or liquidity shortages. Overall, these findings suggest that while capital inflows might improve liquidity conditions in some markets, they also increase the co-movements across domestic financial markets.

**74. A principal component analysis suggests a largely effective macroeconomic policy mix in Malaysia to date.** We perform a principal component analysis for the five volatility measures over the whole sample period. This exercise weights these measures according to their degree of co-movement.<sup>25</sup> The according weights (for two dimensions) are depicted in Figure 48 and show that while “systemic risk” and FX volatility strongly move in line with each other (both get positive weights on the first component/horizontal axis), this potentially reflects the fact that once “systemic risk” materializes amid capital flow reversals the latter leads to volatility of the exchange rate that operates as the

---

<sup>21</sup> Looking at the correlation across the entire sample period potentially masks shifts in financial linkages that are important to capture over time. We thus disaggregate our sample in three periods: The first covers the time span until the US housing market crisis in mid-2007. We chose May 2007 as a cut-off as this is the month where the US Financial Conditions Index recently developed by Wacker et al. (2014) turned negative, indicating tighter financial conditions than the historical average. The second period runs from there to spring 2010 as US financial conditions normalized in the course of QE1. The third period runs from there until late 2014 and coincides with relatively loose financial conditions in the US and relatively high portfolio inflows to Malaysia.

<sup>22</sup> Note that for 5 indices, 10 pairwise combinations are possible.

<sup>23</sup> Holló et al. (2012) find for their indices that high correlations are historically the exception, rather than the rule, “with the period in the aftermath of the collapse of Lehman Brothers clearly standing out in this regard.”

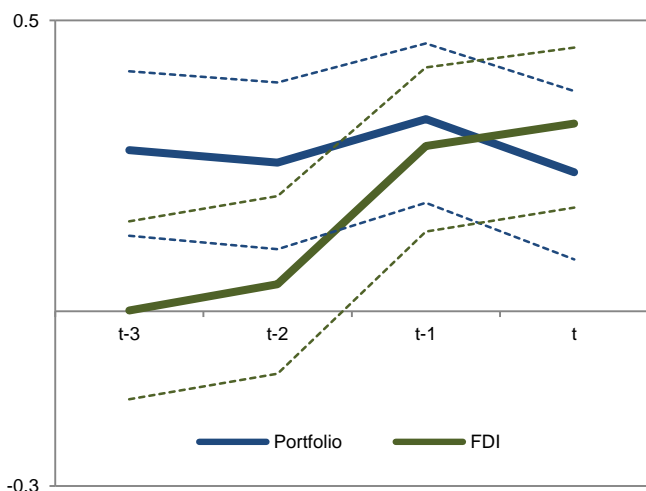
<sup>24</sup> Similar to the finding of Holló et al. (2012) that sub-correlations in their indices increased during the financial crisis, Contessi et al. (2013) find that pairwise correlations between 11 US fixed income spreads were systematically higher during the 2007-2009 crisis.

<sup>25</sup> More precisely, focusing on the first two principal components, this method reveals the importance of each volatility measure for overall financial volatility (i.e. the system of all five measures) in two dimensions that are uncorrelated (i.e. orthogonal) to each other. Principal component analysis is robust to changing correlation patterns over time, as long as the change is relatively slow moving (see Stock and Watson, 2002).

main risk absorber. Volatilities in bond markets and in the money market move in the opposite direction to FX volatility and “systemic risk”,<sup>26</sup> consistent with the response of major domestic funds stepping into the bond market to counter downward pressures on their prices. During such episodes the natural policy response would also counter liquidity concerns (which explains why money market risk mainly moves opposite to systemic and FX risk but in line with bond market stress). Taken together, this suggests that Malaysia has thus far conducted a successful policy mix of a flexible exchange rate, comfortable reserve coverage that allows for intervention where appropriate, macro-prudential measures to control credit growth and domestic funds that can step into markets facing falling asset prices amid foreign investors' portfolio re-allocation.

**Figure 47. Systemic stress rises in quarters after large capital inflows**

Correlation coefficient (incl. standard errors) between systemic risk and lagged capital flows

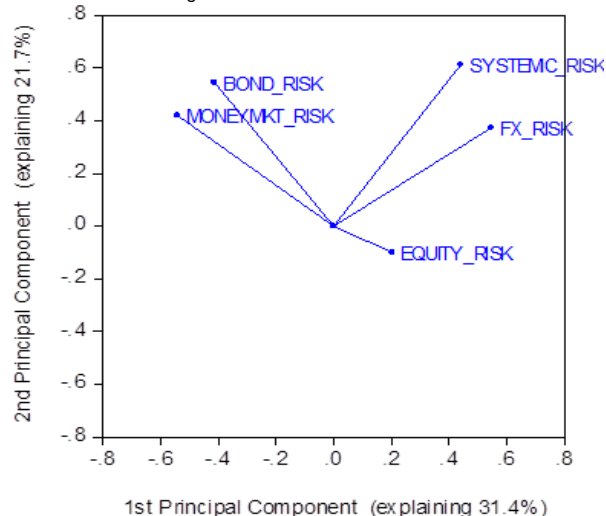


Source: World Bank staff calculations

Note: Flows are gross. Thin dashed lines depict a one-standard error interval around the correlation coefficient (calculated using the Fisher transformation)

**Figure 48. Systemic stress coincides with high FX volatility**

Orthonormal factor loadings



Source: World Bank staff calculations

Note: Locations (relative to the middle of the plane) show how strong individual risk indicators co-move over time. Sub-indices that are “close” to each other tend to move together

**Box 1. Econometric analysis of systemic risk and capital inflows**

An econometric exercise supports the notion that highly elevated “systemic risk” is more likely in periods after large capital inflows. Table 4 presents the results of a simple probit model, where the dependent variable is an indicator for an extreme realization of our “systemic risk” measure. More precisely, this variable equals 1 if the “systemic risk” measure falls in the highest 10 percent of realizations and 0 otherwise. We then regress this indicator on lagged capital inflows, house price developments, credit growth, and equity price growth. While we do not find statistically significant results for the latter control variables, extreme realizations of the “systemic risk” measure are more likely in quarters after larger capital inflows. This is true no matter if one looks at gross, net, or portfolio flows, but not true for FDI flows. Results are similar if other variables than capital flows are excluded (although net flows are at the borderline of statistical significance, p-value 0.104). On the other hand, we do not find statistically significant results when using extreme realizations of the aggregated five volatility measures as a dependent variable. These findings are again consistent with the view that while capital flows might help alleviate tightness and potential stress in certain market segments, they increase the overall “systemic risk” component, e.g. by pushing up volatility and co-movement across several market segments.

<sup>26</sup> This applies to the first, main, principal component. On the second component, all these indices move together. A possible explanation for this pattern is that the second component reflects broad market movements (as from a financial market perspective we would expect a positive correlation between all risk categories), whereas the first component captures macroeconomic policy responses.



**Table 4. Probit model for systemic risk**

	Dependent Variable: Systemic risk (top 10 % realization)			
Gross flows (-1)	9.39E-05* (5.12E-05)			
Net flows (-1) <sup>1/</sup>		-8.32E-05* (5.05E-05)		
Portfolio (-1)			0.000110* (6.35E-05)	
FDI (-1)				0.000148 (0.000167)
House price growth (-1)	-1.22E+01 (1.061084)	-8.67942 (7.987082)	-11.5189 (8.481334)	-7.1379 (7.888497)
Credit growth (-1)	14.34133 (4.850373)	18.77598 (13.56956)	14.8857 (13.58334)	14.0753 (14.05518)
Equity price growth (-1)	2.903211 (13.87981)	4.605726 (4.671153)	2.581064 (4.802497)	5.873079 (4.567668)
Constant	-2.15449* (8.61E+00)	-2.13024** (1.037603)	-2.06235** (1.05196)	-2.24536** (1.084024)
Observations	49	49	49	49
Mc Fadden R-squared	0.137470	0.121956	0.128136	0.070239

Source: World Bank staff calculations. Standard errors in parentheses.

1/ Note that net capital inflows are recorded in the BOP with a negative prefix.

Source: Authors

**75. In line with this reasoning, FX volatility and “systemic risk” move together, pointing to the stabilizing role of exchange rate flexibility.** Our findings suggest that episodes of high capital inflows lead to a building up of “systemic stress” in Malaysia’s financial system, in line with the above-cited literature on capital flow externalities. Under a flexible exchange rate regime, the systematic unwinding of such volatilities should be reflected in FX volatility: capital flows influence the exchange rate and if they target assets on a broad basis (or are intermediated through the domestic financial system) this will lead to correlations in asset price movements (that are captured in our “systemic risk” measure). Accordingly, it should not be too surprising that FX volatility is strongly correlated with “systemic risk” over the most recent period in Figure 46. What is more surprising is that this is a more recent phenomenon, hinting at the possibility that the exchange rate was more capable of accommodating shocks in past episodes.

### New challenges to the macro policy toolkit emerge in a changing global environment

**76. Changing terms-of-trade may limit the effectiveness of the exchange rate as a main shock amid normalizing US monetary policy.** So far, the flexible exchange rate has played an important role as a line of first response in this policy mix: even as the Ringgit depreciated sharply in late November / early December, financial intermediation and real activity remained steady. But with the most recent decline widely seen to have been driven by a terms-of-trade shock in the form of lower energy prices that are expected to persist to some extent, the scope for further depreciation as a shock absorber to capital flow reversals becomes more limited. With interest rate differentials decreasing, investors are more likely to transfer capital towards the US, putting further downward pressure on the Ringgit. Although the effective exchange rate level is more comfortable, a further or protracted weakening versus the US dollar might put pressure on the current account as foreign demand patterns are not fully flexible and imports invoiced in US dollars will become more expensive while exports may not immediately benefit from higher price competitiveness. Furthermore, export partners like Japan and the Euro area are expected to loosen monetary policies further, with depreciating effects on their own currencies. Such a sharp divergence in main central banks’ monetary policy has not existed over the last decade.

**77. Monetary policy may need to dig deeper into its toolkit.** To the extent that real and especially financial cycles were globally synchronized in the past,<sup>27</sup> monetary policy responses were as well. This led to 'deceptive coincidence' of monetary policy effectiveness for many EMEs since it seemed that focusing on inflation was largely sufficient for conducting monetary policy as interest rate differentials between countries did not create considerable scope for concern. Malaysia is already ahead to some extent given its mandate to safeguard financial as well as price stability and the extent of tools at its disposal. Nevertheless, the year ahead promises to be challenging. While reserves could be used to bolster at least temporary exchange rate swings, it is difficult to imagine this would give full independence to the policy rate. As the latter still has to maintain a meaningful interest rate differential to the US, concerns over pressures on household budgets emerge since mortgage debt is high, with rates tied to the policy rate. Operating at a 'lower bound' environment defined by the interest rate differential to the US would call for non-standard measures of monetary loosening to remain accommodative, which creates financial stability concerns. This 'dilemma' highlights the limits to the effectiveness of monetary policy under capital flows (see Rey, 2013). While BNM's switch to a base rate policy framework (as opposed to the current base lending rate framework) in January is expected to improve monetary policy effectiveness, it does not solve this dilemma per se.

**78. Fiscal and debt policy can also play a role in helping Malaysia cope with greater volatility.** Fiscal and debt policy can be supportive of macro-financial stability in at least two ways. First, by reducing the call on domestic liquidity through more effective spending that leads to lower deficits and financing needs; and through a rebalancing of the public debt portfolio towards external debt, which is currently negligible. If the demand for MGS declines on the margin due to the global portfolio rebalancing, reducing the Government's financing needs will support balance in the bond market by avoiding crowding out of private investments. Moreover, fiscal consolidation that aims at greater expenditure efficiency makes the government's finances less sensitive to interest rate increases that may be required. Second, by reallocating spending to targeted segments that may be more vulnerable to possible interest rate increases, thus ensuring that household finances remain solid. The recent move to abolish fuel subsidies discussed in Issue Note A, and the accompanying increase in targeted cash transfers, is an example of such a reallocation.

---

<sup>27</sup> The debate on the global synchronization of business cycles seems unsettled in the literature. Among others, Claessens et al. (2011) find a high degree of credit and equity price synchronization across countries.

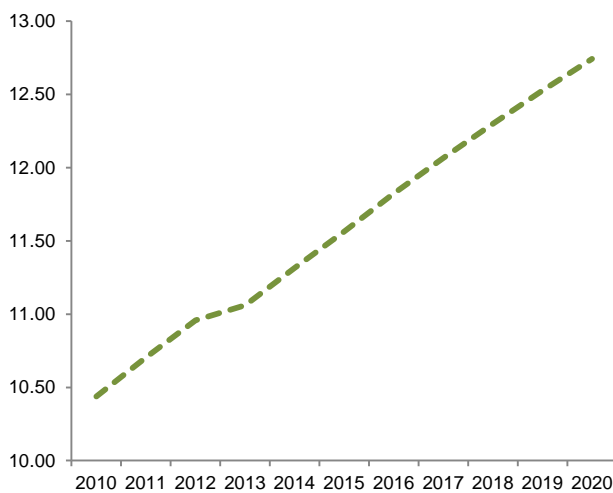
## C. Informing and prioritizing Malaysia's skills investments: Lessons from REP and RP-T

### Skills deficits and labor imbalances stand in the way of Malaysia achieving its development goals

**79. In order to become a high-income country, Malaysia needs to create jobs across the skills spectrum.** To sustain year-on-year GDP growth of 5 percent towards 2020, a large number of jobs need to be created, along with workers with the right skills to fill them. Local employment (Malaysian citizens who are wage earners or self-employed) steadily increased from 10.4 million in 2010 to 11.3 million in 2014, and is projected to rise further to 12.7 million in 2020 (Figure 49). The challenge is not only to create high-skilled jobs – the demand for workers has increased at every skill level. Although low-skilled professions still make up the majority of jobs, mid-skilled professions have grown the fastest, accounting for 31 percent of all employment in 2013, compared to 23 percent in 2003 (Figure 50).

**Figure 49. The demand for labor has steadily increased**

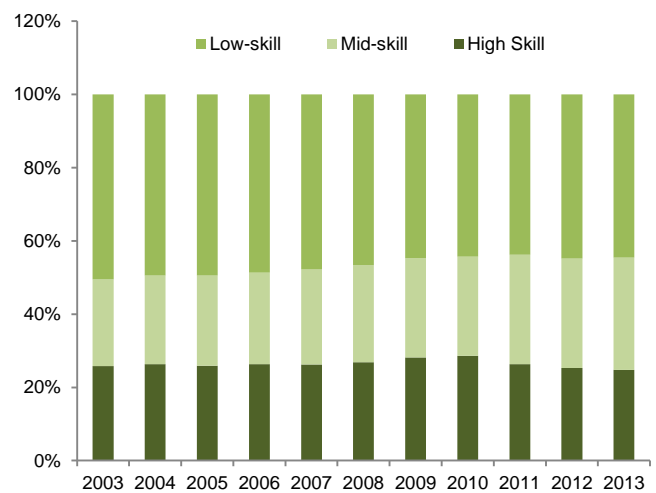
Employment of local workers, millions



Source: World Bank staff calculations, various sources (DOSM, UNESCO, MoF, World Bank Data Bank, WHO, BNM)

**Figure 50. More workers are needed at every level of the skills spectrum**

Percent



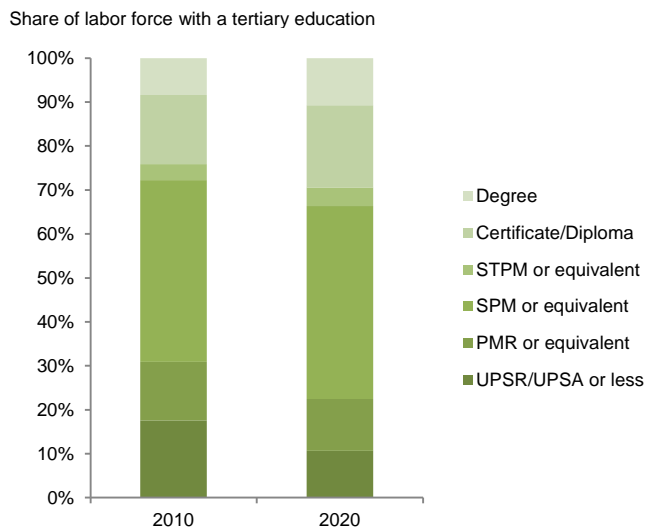
Source: DOSM, Labor Force Survey (Time Series)

Note: 'High Skill' includes legislators, senior officials, managers, professionals, technicians and associate professionals. 'Medium Skill' includes clerical workers, service workers and shop and market sales workers. 'Low Skill' includes agricultural and fishery workers, craft and related trade workers, plant and machine operators and assemblers.

**80. Although Malaysia's workforce is increasingly equipped to fill these new positions, skills shortages persist, suggesting systemic mismatches between demand and supply.** The share of the labor force with a tertiary qualification increased from 14 percent in 2001 to 25 percent in 2010 (Figure 51). Yet companies consistently report difficulties in finding talent among their top business challenges. According to a recent survey by Grant Thornton (2013), 62 percent of firms in Malaysia have difficulty finding workers with the right skills, while 48 percent identify the lack of talent as a constraint for future growth (Figure 52). Other surveys indicate that job applicants lack basic numeracy and literacy skills, as well as 'softer' skills such as analytical thinking, problem-solving and communication abilities (World Bank 2014c). More strikingly, these skills deficits and empty vacancies persist alongside relatively high rates of graduate unemployment; out of the 220,527 students who graduated<sup>28</sup> in 2012, 25.6 percent had not secured a job 6 months after graduation (MoHE 2013). This scenario suggests that there is a gap between the skills supplied by universities with those demanded by employers.

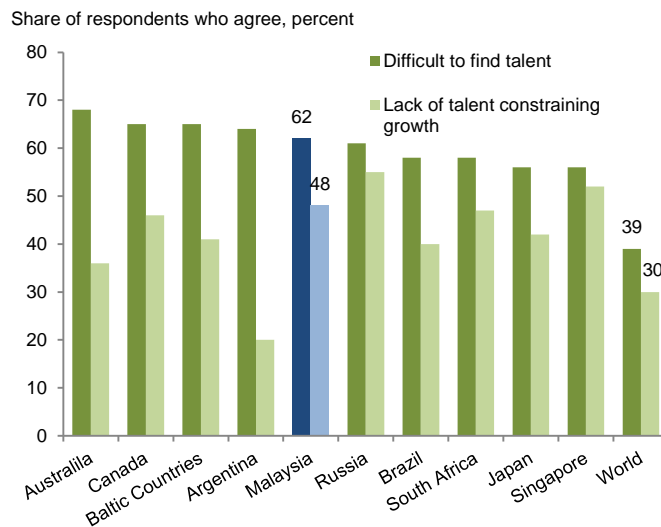
<sup>28</sup> This number includes all levels of qualifications (i.e. PhD, Masters, Bachelor's Degree, Diploma, Certificate, Professionals and others) in public and private universities.

**Figure 51. The labor force is becoming increasingly educated...**



Source: World Bank staff calculations, various sources (DOSM, UNESCO, MoF, World Bank Data Bank, WHO, BNM)

**Figure 52. ...yet finding people with the right skills remains a challenge for firms.**



Source: Grant Thornton International Business Report 2013

## The lack of interaction between the supply and demand of labor perpetuates skills deficits

**81. Malaysia has been generous and proactive in addressing skills deficits and mismatches, but its overly supply-driven approach muffles key signals from employers.** Out of the RM54 billion or 6 percent of GDP spent on education and training in 2013, 22 percent was directed to public universities<sup>29</sup>, while RM4.1 billion was spent on post-secondary vocational and technical education (TVET). In addition, it is estimated that spending on active labor market programs amounted to RM1 billion in the same year. While these investments are laudable, the efficiency and effectiveness of these programs in closing the skills gap could be improved. Analyses by the World Bank and others suggest that public investments in solving the skills mismatch are overly supply-driven, muffling the signals that the market is sending about the skills that are sought. Other challenges include a large and largely uncoordinated body of public agencies with a role in skills development, as well as an uncontested, mainly public provision of TVET.

**82. The lack of permanent, structural channels of information among employers, skills providers and job seekers has led to a build-up of skills deficits and mismatches.** While most employers are aware of Government-funded graduate employability programs, especially the Graduate Employability Management Scheme (GEMS)<sup>30</sup>, few utilize and recognize their importance. A TalentCorp/World Bank survey showed that while 72 percent of employers are aware of at least one government-funded training program, only 28 percent of companies view participation in such programs as an important factor affecting their hiring decisions (World Bank 2014c). These results suggest that publicly-funded training programs may not be responding to the most crucial challenges faced by firms, or adapting quickly enough to labor market demands uneven information flows among employers, skills providers and job seekers. While Government involvement in skills development is also substantial in Korea, Ireland, Singapore, Australia and the United Kingdom, industry demand is the primary impulse that drives interventions in these countries – an institutional shift in orientation that has not yet happened on a large scale in Malaysia.

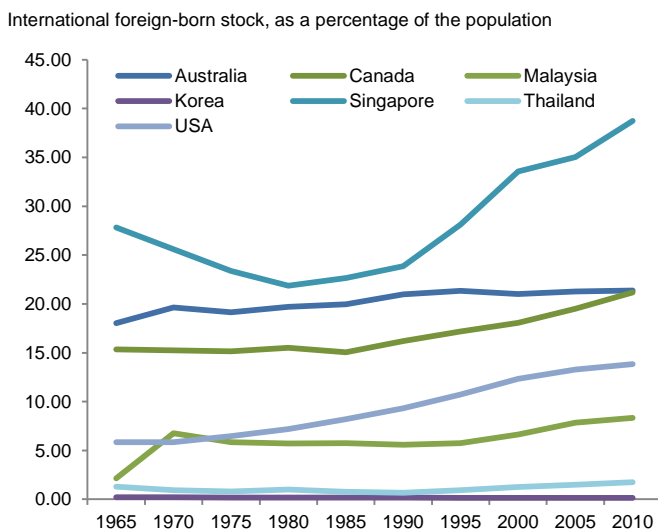
<sup>29</sup> World Bank staff estimates from the Auditor-General's Report (2012) and the Ministry of Finance's 2014/15 Economic Report.

<sup>30</sup> The Graduate Employability Management Scheme, was established in 2009 (GEMS1.0) with a strong focus on generic soft skills. The program was subsequently revised in 2013 (GEMS2.0) to be more sector-focused. GEMS trained more than 11,000 graduates from 2009 to 2013, with a high conversion rate to full time employment (World Bank 2014c).

## Attracting talent from abroad can help Malaysia meet its labor market needs

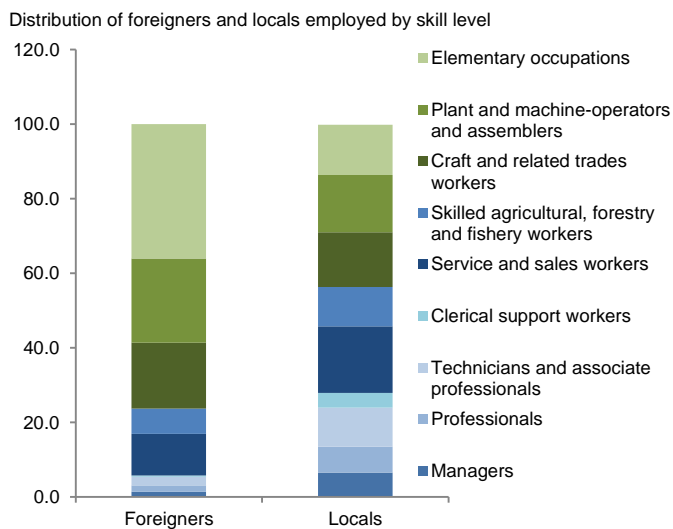
**83. One way of filling skills deficits is to reach out to talent from abroad.** While solving the mismatch between skills supplied by the local workforce and those demanded by industry is a top priority for the Government, every growing economy has a need for labor and human capital from abroad (Figure 53). In order to meet the persistent demands for labor and human capital, the Government's strategy includes tapping sources beyond the pool of local talent. Malaysia goes to considerable effort to attract and retain talent from the international labor pool including from the large Malaysian diaspora.

**Figure 53: Foreign labor is steadily increasing in many developed countries**



Source: World Development Indicators 2013

**Figure 54. Most foreign labor in Malaysia is low-skilled**



Source: DOSM, Labor Force Survey 2013

**84. But Malaysia has relatively low numbers of expatriate professionals.** Foreign skilled, managerial, professional or technical workers with a minimum monthly salary of RM5,000 and at least a two-year contract are eligible for expatriate<sup>31</sup> status in Malaysia. While these criteria are relatively accessible, there were only 46,000 foreigners with expatriate status residing in Malaysia in 2010, compared with 310,000 skilled Malaysians living abroad in the same year (DOSM, 2013). The number of expatriates is also low relative to the share of semi-skilled or unskilled migrant workers; according to the Department of Immigration, only two percent of all registered foreign workers in Malaysia were classified as expatriates as of October 2011 (Figure 54). In part, this may be explained by restrictions imposed upon expatriates, who are not allowed to switch employers while in the country. Moreover, while expatriates enjoy benefits related to bringing spouses and allowing them to work, these rules do not apply to other family members.

**85. Tapping into the highly educated Malaysian diaspora could help to fill the skills gap.** Leveraging on the diaspora is a common way for countries to try and meet their needs for skilled labor. Malaysia's diaspora is a rich human capital resource for this purpose, as approximately half of more than 300,000 Malaysians living in OECD countries in 2010 had completed tertiary education or a higher level of study (Global Migration Database, latest update). As a share of total emigration, the rate of tertiary educated migration has been stable over the past decade, falling slightly from 56.5 percent in 2000 to 54.5 percent in 2010.<sup>32</sup> Moreover, many Malaysians abroad still retain close ties to the country.

<sup>31</sup> Expatriates are classified into three categories. 'Key posts' refer to high-level managerial or strategic positions (Chief Executive Officer, Managing Director, etc). 'Executive posts' refer to intermediate level managerial posts and require job-specific academic qualifications, practical experience and expertise. Non-executive posts are technical jobs that require specific vocational skills, such as manufacturing systems designers, food technologists and fashion designers.

<sup>32</sup> Table 5 does not include migration to Singapore due to the absence of reliable data. The Department of Statistics of Singapore states that approximately 691,000 Malaysians were residing in Singapore in 2010, approximately a fifth of whom are tertiary-educated. However, data is not publicly available on the country's 1.3 million-odd non-residents/migrants, many of whom are presumably Malaysian. Since Singapore is one of the main destination countries for Malaysian migrants, it is difficult to provide a complete picture of the skilled Malaysian diaspora at this time.

One survey of the diaspora shows that nearly half of the respondents visit Malaysia three to 5 times a year, while 41 percent are members of a diaspora association, an indication of their interest in the country despite being abroad (TalentCorp/World Bank, 2014b).

**Table 5. Malaysians in OECD countries by educational level in 1990, 2000 and 2010**

	1990			2000			2010		
	Total	Tertiary	Percent	Total	Tertiary	Percent	Total	Tertiary	Percent
Canada	12,150	8,480	69.8%	17,150	12,170	71.0%	23,530	14,240	60.5%
Australia	44,984	35,366	78.6%	56,961	38,620	67.8%	116,193	65,554	56.4%
UK	31,130	15,328	49.2%	38,146	12,898	33.8%	69,939	39,631	56.7%
US	17,725	13,745	77.5%	36,995	24,085	65.1%	61,765	34,508	55.9%
Other OECD	15,101	6,265	41.5%	21,516	8,710	40.5%	39,418	15,545	39.4%
<b>TOTAL OECD</b>	<b>121,090</b>	<b>79,185</b>	<b>65.4%</b>	<b>170,767</b>	<b>96,483</b>	<b>56.5%</b>	<b>310,845</b>	<b>169,478</b>	<b>54.5%</b>

Source: Global Bilateral Migration Database presented in Ozden et al, 2011, World Bank staff calculations

**86. In recent years, significant efforts have been made to attract and retain more expatriate talent, as well as engage with the diaspora.** In 2011, the government established Talent Corporation Malaysia Berhad (TalentCorp) to formulate and facilitate initiatives to address the availability of talent. TalentCorp was tasked with improving the effectiveness of the Returning Expert Programme (REP), which seeks to facilitate the return of Malaysian professionals to contribute to the workforce. In cooperation with the Ministry of Home Affairs and the Department of Immigration, TalentCorp also initiated the Residence Pass-Talent (RP-T) to liberalize the entry and improve the retention of skilled foreign talent. A key difference of these programs is their demand-driven approach; TalentCorp conducts regular, direct consultations with industry to identify their changing needs and matches them with qualified individuals. Both programs are described in greater detail in Box 3 and Box 3.

**87. The REP and RP-T programs succeed at attracting people with the skills that Malaysia needs.** An early assessment by the World Bank found that REP participants and RP-T holders fill skill gaps in the economy. For example, most returning Malaysians under the REP work as managers, engineering and health professionals or specialists in the financial and education sector. These occupations correspond to the professions that appear to be in short supply, based on analyses of Household Income Survey data from 2009 and 2012. Both RP-T and REP-approved individuals tend to command an earnings premium in the labor market, suggesting that employers place significant value on the expertise/experience of returning Malaysians and foreigners.

**88. Nonetheless, the identification of skills gaps can be improved.** Currently, TalentCorp largely relies on in-depth consultations with employers to identify REP and RP-T applicants that would best fill the skills required for a particular position. Unfortunately, relying on a bottom-up approach alone might make it more difficult for certain professions to qualify for these programs, even if their skills are needed in Malaysia. For example, although the REP accepts applications from technicians, especially in the oil and gas sector (panel operators, etc), applicants should have at least a Diploma to qualify. Given that these occupations are also important for the country and make up a rapidly growing share of jobs, these restrictions should perhaps be re-evaluated in the future. As noted later, using top-down data analysis to complement TalentCorp's outreach to employers would help to identify gaps found to be in scant supply with respect to demand across the skills spectrum.

**89. While more rigorous evaluation is needed to assess the long-term impact of REP and RP-T, it is important to recognize that they are being continuously refined.** A key feature of both programs that should be maintained is their ability to adapt to the needs of the labor market. For example, in April 2014, the eligibility criteria for REP was revised to take into account the applicant's work experience in Malaysia prior to employment abroad, current salary abroad and the relevance of his/her expertise to the priority economic sector or area of critical skill gap. Previously, the eligibility criteria were simply a function of the Malaysian professional's years of experience overseas and qualifications. Another possible refinement is for applications to evolve from being driven by individual Malaysians abroad to applications driven by employers, to better reflect industry demand. Such policy refinement is important, as the programs should continuously evolve together with the changing demands of the market and the economy.

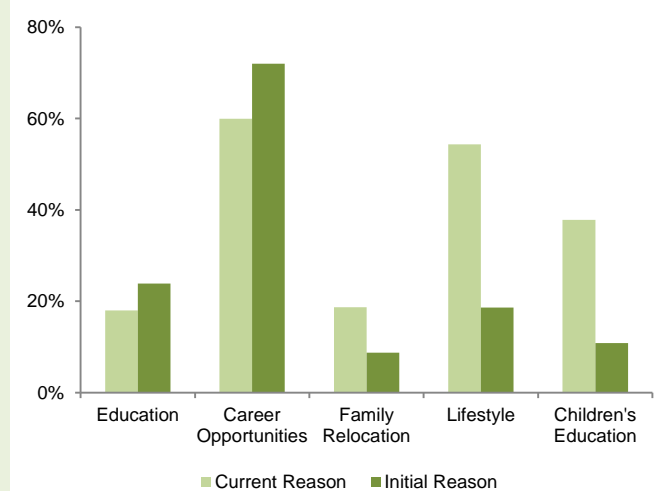
## Box 2. The Returning Expert Programme

Since 2011, more than 3,100 Malaysian professionals have been approved under the Returning Expert Programme (REP), which seeks to facilitate the return of Malaysian professionals. Approved REP participants are entitled to (1) a transitional income tax rate of 15% on their employment income for 5 years (the maximum income tax rate is 26%); (2) the ability to purchase one car tax free; and (3) eligibility for fast track Permanent Residence passes for foreign spouses and children within 6 months. These incentives appear to be important; those who are approved to enter the REP are 17 percent more likely to return to Malaysia (TalentCorp/World Bank 2014).

The majority of REP applicants surveyed by TalentCorp/World Bank are primarily motivated to leave their current country in pursuit of better career opportunities (Figure 55). This compares to 72 percent who initially left Malaysia for the same reason. They also maintain strong professional and financial ties with Malaysia; 37 percent participate in a professional network, while nearly half own property and investments in the country (Figure 56).

**Figure 55. Career opportunities motivate the decision of REP applicants to relocate**

Share of respondents by major reason for relocation

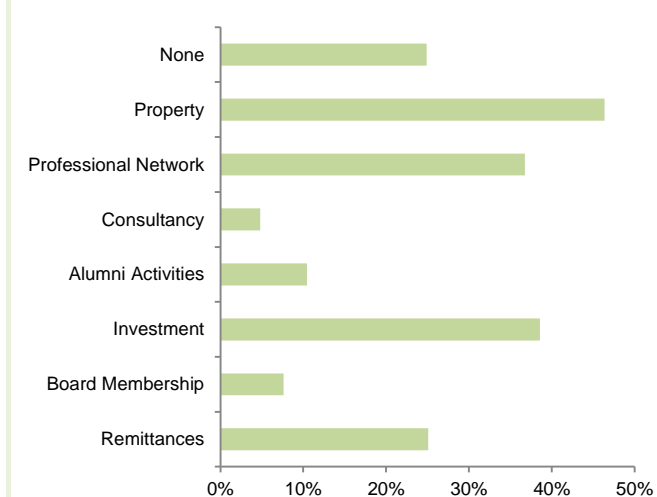


Source: TalentCorp/World Bank survey (2014b), n=628

Note: 'Current reason' refers to the major reason why respondents would like to move from their current country of residence. 'Initial reason' refers to their initial motivations for leaving Malaysia.

**Figure 56. REP applicants maintain strong professional and financial ties to their home country**

Share of respondents by ties to Malaysia



Source: TalentCorp/World Bank survey (2014b), n=628

Source: Authors

## Box 3. The Residence Pass-Talent Programme

Issued personally to the holder, the RP-T enables highly skilled foreign professionals a longer tenure of 10 years to reside and work in Malaysia. The RP-T provides greater employment flexibility, as successful applicants do not have to renew the pass if they switch employers. Benefits are also extended to spouses and children (below 18 years old); in particular, spouses of RP-T holders are allowed to seek employment in Malaysia. Dependents of the RP-T holder, including the parents and parents-in-law, are also eligible for a five-year social visit pass.

Since its establishment in April 2011, more than 3,000 RP-T applications have been approved. Successful applicants comprise technical experts as well as top and middle-management professionals contributing to critical sectors under the Economic Transformation Programme (ETP), such as Business Services, Information & Communication Technology (ICT), Oil, Gas & Energy and Financial Services. These professionals hail from large key markets such as the US, Japan, the UK, Australia, China and India as well as ASEAN countries such as Indonesia and the Philippines.

To be eligible for the RP-T, an expatriate must first have a valid employment pass. They must have a minimum gross taxable income of RM144,000 per annum, filed for income tax in Malaysia for a minimum of two years, and have worked in Malaysia for at least three years.

Source: Authors

### Skills development policies should be better informed by the demands of the economy

**90. To augment the performance of programs such as REP and RP-T, a more top-down, data-driven approach is needed to better match the supply and demand for skills.** As Malaysia's human capital challenges become more complex, the country should consider developing a framework for establishing a regularly updated 'critical skills shortages list' (see Box 5 for an example). In line with making policies more demand-driven, such a list would help to identify skills deficits and match them with the requisite supply of talent in a dynamic fashion. This 'top-down,' data-driven approach has been successfully used by the UK's Migration Advisory Committee (MAC) to complement the sort of outreach to employers that TalentCorp undertakes for REP and RP-T (see Box 4 for an example). By relying on both top-down analyses of data paired with 'bottom up' consultations, governments avoid the risk that a small group of vocal or well-connected employers might distort decisions. Although building and maintaining a critical skills shortages list can be demanding, Malaysia can leverage on TalentCorp's industry network combined with survey data on ILMIA's Workforce Dashboard to develop a framework that coordinates the relevant institutions and skillsets.

**91. A critical skills shortages list could help to increase the return on public investments in skills development and employment assistance programs by allocating resources according to labor market demands.** Understanding the specific skills that are demanded by the labor market would help the Government to prioritize publicly-financed initiatives related to the supply of labor and human capital, such as TalentCorp's REP & RP-T, the Immigration Department's Employment Pass, Government scholarships, up-skilling and re-skilling programs and courses offered by institutes of higher education. At present, the plethora of programs and initiatives are financed with little reference to their performance or the priority needs of the market. Few if any programs are subject to performance evaluation, making it difficult for policymakers to understand which interventions are most effective and efficient in closing the skills gap. By ensuring that public goods such as a workforce dashboard and a critical skills shortage list are used to prioritize all public interventions to increase the supply of labor and human capital, Malaysia can fully benefit from the investments it has made in human capital.

#### Box 4: Using data on critical skills shortages to improve the selection procedures for REP and RP-T

To test if an instrument such as the critical skills shortages list would improve the responsiveness of the REP and RP-T to the needs of the economy, the World Bank simulated migration management practices in the UK, Australia and other developed countries to see how current selection procedures for these programs could be improved. A rigorous, point-based process was used to identify skills deficits and prioritize applicants.

First, regression analysis is used to calculate the applicant's points corresponding to the different eligibility criteria (determinants of wage levels). Second, an adaptable set of eligibility criteria that proactively addresses economic objectives is applied. As objectives change, the point system adapts to quickly fill skill gaps and shortages. For example, if IT technicians have lower wages compared to other professionals but the economic returns of having good technicians to fill skill gaps in NKEA sectors are high, then the system should allow them in while local technicians are trained. Finally, existing administrative data is used to compare the characteristics of applicants.

Preliminary results suggest that using top-down data analysis would enhance the quality of the applicant pool. For example, if the requirement for work experience in Malaysia is removed, a larger and more experienced talent pool would be available. Currently, the selection for REP takes into account an applicant's years of work experience in Malaysia, while RP-T applicants are required to have worked in Malaysia for at least three years. Interestingly, if more emphasis is placed on relevant work experience regardless of where it is obtained, applicants would, on average, have more work experience in Malaysia than those accepted under current requirements.

Source: Authors



**92. Structural, permanent channels of communication between employers, skills providers and job seekers are essential.** The recent experience of the REP and the RP-T indicate that critical information channels between those who seek opportunities and those who offer them improve the labor market matching process significantly. Moving forward, these links could be strengthened and expanded to attract the best and brightest back to Malaysia. Beyond providing financial incentives, TalentCorp should place more emphasis on connecting the Malaysian diaspora to suitable professional opportunities. Given that most Malaysians who apply for the program are professionally opportunistic, well-networked individuals, the program could further optimize information channels by reaching out to employers and families in Malaysia, as well as diaspora associations abroad. Providing prospective returnees with key information (e.g. growth sectors, labor market conditions, wages and other employment outcomes) is and will continue to be critical in order to keep applicants engaged.

**93. Efforts to attract/retain talent from abroad could be more effective if there is greater flexibility and consideration for the broader needs of participants' families.** Although returning Malaysians and expatriates are provided with benefits for their spouses and children, including the ability for their spouses to work, implementing these terms has proven challenging. Following in the footsteps of Canada and Singapore, Malaysia could continue its efforts to reintegrate expatriates and foreign family members of returned Malaysians into the local labor force. Ensuring that family needs are met – such as the ease of enabling non-national spouses to work and schooling for children – are essential to attracting and retaining expatriate talent, as well as in repatriating Malaysians. Moreover, greater flexibility with regards to previous work experience would likely improve the quality of applicants to these programs (see Box 4).

**Box 5: The Migration Advisory Committee's Skills Shortages List**

The Migration Advisory Committee (MAC) is a public body established in 2007 with the mandate to provide evidence-based advice to the UK Government. It was tasked with developing a shortage occupation list to help identify occupations that could qualify as part of the skilled stream of the Government's immigration program.

The MAC first conducted top-down analysis based on national-level datasets to identify shortages at the occupational level. It subsequently conducted 'bottom-up' consultations with sector experts to identify individual job titles that were in shortage, something that could not be accomplished through national data analysis alone.

To assess skill-shortages during the analysis of national data, MAC considers twelve indicators falling in four broad categories: 1) employer-based indicators (e.g. reports of shortage), 2) price-based indicators (e.g. earnings growth), 3) volume-based indicators (e.g. employment or unemployment) and 4) indicators of imbalance based on administrative data (e.g. vacancy duration or unemployment ratios). In order to be considered in shortage, an occupation needs to be above a given threshold in at least 6 of the available indicators (green-light approach).

One of the characteristics of the list developed by MAC is its dynamicity. Each indicator is updated as soon as new data is available. In addition, the list is provided to training institutions so that they can focus on forming these skills.

**Table 6. Example of a skills shortages list**

Job title	SOC 2000 Occupation	SOC 2010 Occupation
Geophysicist specialist	2113	Physicists, geologists and meteorologists
Geophysicist		
Geoscientist		
Hydro-geologist		
Geo-mechanical engineer	2121	Civil engineers
Geotechnical specialist		
Engineer – petroleum		
Engineer – reservoir, panel		
Engineer, rock mechanics		
Engineer, soil mechanics		

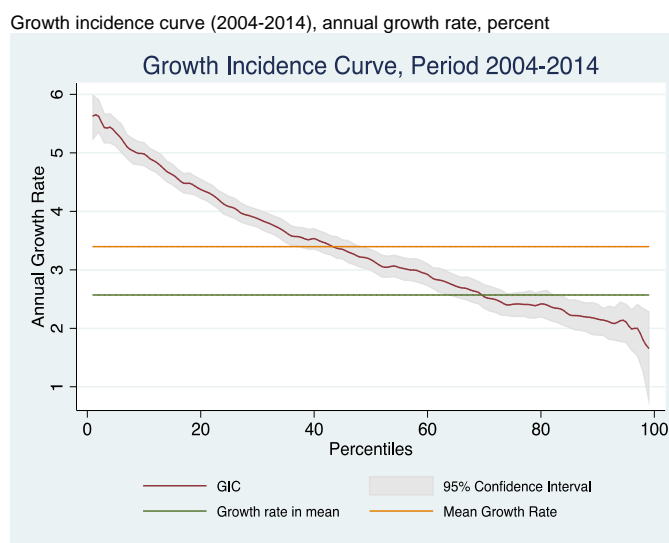
Source: Adapted from the Skilled Shortage Sensible, Migration Advisory Committee, United Kingdom

### 3. TOWARDS A MIDDLE-CLASS SOCIETY

#### From middle-income country to middle-class society

**94. Malaysia has been able to translate natural resource abundance and high economic growth into a success story of shared prosperity.** Absolute poverty has been nearly eradicated, and the share of the population that is vulnerable to falling into absolute poverty has also declined. The definition of shared prosperity is that all households enjoy higher incomes, but growth is higher for those households at the bottom of the distribution. Malaysia's experience from 2004 to 2014 is an example of that (Figure 57). Such a pattern of growth leads to a reduction in income inequality. As shown in Figure 58, different inequality measures did indeed decline between 2004 and 2014.

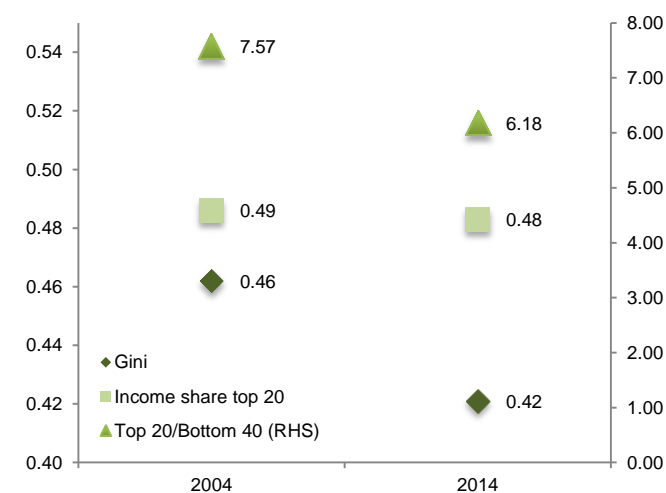
**Figure 57. Incomes at the bottom of the income distribution grew faster than those at the top...**



Source: HIS (various years), DOSM, World Bank staff calculations

**Figure 58. ... leading to a reduction in inequality between 2004 and 2014.**

Inequality measures: Gini coefficient, index; income share, percent; top 20/bottom 40 income shares, multiple (RHS)



Source: HIS (various years), DOSM, World Bank staff calculations  
Note: See Annex I for a definition of inequality measures

**95. Further reducing inequality in Malaysia would be beneficial on its own right, but well-implemented policies that enhance equity are also good economic policy.** Lower levels of inequality can reinforce and accelerate economic growth by increasing social cohesion, reducing political support for more distortionary redistributive policies, and creating a large consumer class that generates scale economies for local businesses. Moreover, surveys suggest that individuals consider high inequality undesirable and report lower levels of well-being when inequality is high (e.g. Alesina et al., 2004). In addition to possible dissatisfaction with the perceived unfairness, high inequality may influence expectations of what a comfortable living should be like (Daly and Wilson, 2006) such that households with the same purchasing power in different countries may be more satisfied where inequality is lower.

**96. Malaysia's journey to promote shared prosperity has entered a new phase: moving towards a middle-class society.** In order to become a high-income nation by 2020, Malaysia has placed much emphasis on increasing its levels of per capita gross national income, which has steadily increased over the past few years. Yet transforming into a high-income nation goes beyond income per capita alone – it is a means to becoming a middle-class society. While higher gross national income (GNI) is a necessary condition to generate the resources to fulfill the needs and aspirations of Malaysian households, the distribution of growth also matters. Advanced economies not only have high levels of GNI per capita, but also large middle classes that enjoy a “comfortable living” afforded by the nation's high income. The importance of the middle class to a country's economic growth has been well defined: Kharas (2010) calls it a consumption class, as the income elasticity for durable goods and services is greater than one, while Easterly (2001) finds that there is a strong interrelationship between the size of the middle class and a country's level of income and growth. More broadly, the middle class is also seen as the driving force behind a country's social and political stability, expressing preferences that reward moderate over extremist values (Lipset, 1959).

**97. The New Economic Model and the 10<sup>th</sup> Malaysia Plan recognize the importance of shared prosperity and addressing income inequality.** The New Economic Model has inclusiveness as one of its three main pillars, noting that (as of 2009) “inequality remains high” (p. 41). The inclusive growth strategy was translated as a focus on the bottom 40 percent: “market-friendly affirmative action programmes in line with the principle of inclusiveness will (...) target the assistance to the bottom 40 percent of households, of which 77.2 percent are Bumiputera and many are located in Sabah and Sarawak” (p.10). This focus on the bottom 40 and inclusive growth was incorporated in the Tenth Malaysia Plan, which dedicates an entire chapter to inclusive development, including “elevating the livelihoods of the bottom 40 percent of households” (p. 142) as a key strategy.

**98. While providing for the poor and vulnerable remains imperative for shared prosperity, Malaysia can now afford to take on the challenge of moving the large number of ‘aspirational’ households to the middle class.** The first priority of any country is to reduce absolute poverty, which is characterized by deprivation of the most basic needs such as food and shelter. The second priority is to protect households at the margins of absolute poverty from falling into it. However, it is legitimate to aspire to more than just meeting one’s basic needs, to what may called a “comfortable living” that is associated with the middle class. Aspirational households are those clustered around the middle of the income distribution: their basic needs have been met and most would not fall back into absolute poverty even if hit by a shock – yet these households have not yet reached an economic status that they would consider to be “comfortable” or “middle class”. In Malaysia they are the largest group in society, estimated at 51 percent in 2014.

**99. Raising incomes of the poor, vulnerable, and aspirational groups will require a combination of higher income from work, and from savings and transfers.** Once the groups have been defined and their characteristics understood, the next step lies in identifying channels for income growth. Incomes may be usefully classified in two main types: that which comes from working and includes both employee’s wages and earnings of the self-employed; and that which comes from assets (savings for example) and income transfers. The main lever to boost income growth for the aspirational group is to close the gap in post-secondary educational achievement. Moreover, the structure of labor markets and the entrepreneurship ecosystem can play a role in the distribution of rents between capital and labor, and can be modified to favor lower-income groups. Finally, there is a role for social safety nets that reduce vulnerability and target transfers to the neediest households.

**100. To boost household incomes and accelerate Malaysia’s transformation into a middle-class society, Malaysia may consider prioritizing reforms that:**

- a. Enhance opportunities for raising incomes by closing the educational achievement gaps at the post-secondary levels, including pursuing universal pre-primary enrolment, policies to boost the quality of the poorest-performing schools and further developing skills of those already in the labor force
- b. Ensure opportunities for entrepreneurship are available to the bottom of the income distribution
- c. Create an integrated social safety net system that includes both social insurance mechanisms to protect households against shocks and old age, and higher social assistance targeted at the poor and vulnerable
- d. This safety net can be financed through more progressive tax policy that accomplishes a more significant degree of income redistribution

**101. This chapter is organized along four main sections: The first makes the case for focusing on the distribution of income,** which is implicit in moving households to the middle class, as not only the right thing to do but also good economic policy. **The second defines three distinct groups to be targeted in Malaysia’s transformation to a middle-class society: the poor, the vulnerable and the aspirational.** It considers issues of definition and describes the salient characteristics of each group. **The third section looks at sources of income gaps between the three groups and the middle class,** focusing on increasing labor market returns through raising educational levels, entrepreneurship opportunities, and non-labor incomes. **The fourth and final section concludes with a discussion of policy options to accelerate Malaysia’s transformation towards a middle-class society.**

### **Moving towards a middle-class society goes hand-in-hand with reducing inequality**

**102. A strategy for moving towards a middle-class society is necessarily concerned with the distribution of incomes and reducing inequality.** While it is possible in theory to move large numbers of ‘aspirational’ households to the

middle class through very high growth rates that mostly benefit top earners, more families can transition to the middle class with the same rate of GNI growth when the incidence of income growth across households favors the bottom of the income distribution. Moreover, as discussed below, the very definition of the middle class may partly be impacted by inequality, with more unequal societies creating higher perceived thresholds for entering the middle class. Accordingly, policies to move aspirational households to the middle class must be targeted at the bottom of the income distribution, and therefore also represent efforts to reduce income inequality.

### Reducing inequality is beneficial in its own right, but also good for growth

**103. People from many cultures place an intrinsic value on equity.** For example, one of Islam's five pillars of faith is *zakat*, providing for the poor and needy. A well-known argument for the intrinsic value of equity is made by Harsanyi (1955) and Rawls (1972): suppose you stood behind a "veil of ignorance" and did not know what kind of society you would be born in. If the average incomes are the same, would you choose a society with greater or lower inequality? Risk aversion would suggest a preference for a more equitable society. Moreover, equity is closely linked to notions of fairness. Roemer (1998) notes that individual welfare is a function of their efforts, but also circumstances over which they have no control and affect both how much effort they exert and the level of welfare they eventually attain. Inequality due to circumstances beyond an individual's control could be deemed as unfair. Research on equality of opportunities quantifies this conjecture. For example, in Latin America between a quarter (Colombia) and half (Guatemala) of income inequality observed among adults is attributed to circumstances they faced early in life (Paes de Barros et al., 2009).

**104. High inequality tends to offset the benefits of higher incomes on individual well-being and may raise the threshold of what is considered "middle-class".** One way to define the middle class is by a set of aspirations. Easterlin (1994) and Frank (2007), among others, provide evidence that what people aspire to in many ways depends on what their peers have. These peers (the "reference group") may be localized (e.g. those of similar education level, age group, and living in the same region), or, as in Easterlin (1994), it may include all citizens of the country. Evidence also suggests that people tend to compare themselves mostly with those who are better off (Ferrer-i-Carbonell, 2005). Since higher inequality implies a greater distance between the middle and the top of the income distribution, it leads to a higher "comparison income" and when inequality is growing, relative incomes of the households in the middle of the income distribution are declining, partly offsetting the benefits of higher absolute incomes.

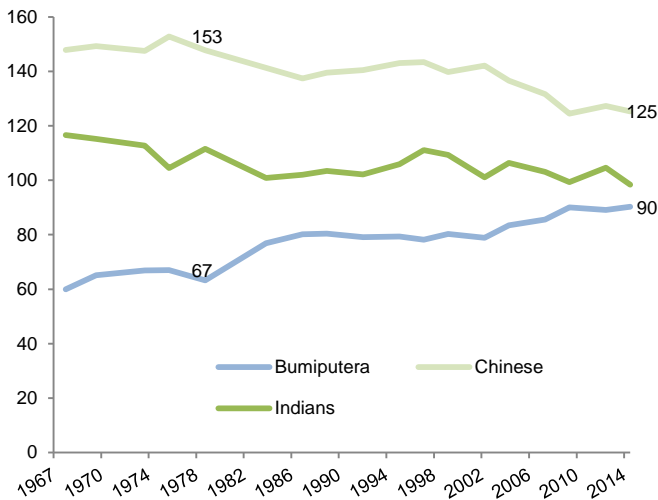
**105. While a trade-off between growth and equity has long been posited, a consensus is emerging that inequality harms growth, and well-designed policies to reduce inequality can be beneficial.** Berg and Ostry (2011) present evidence that lower levels of inequality can help sustain growth. A recent paper (Cingano, 2014) draws on data covering the OECD countries over the past 30 years and argues that income inequality has a negative and statistically significant impact on subsequent growth. The gap between low income households and the rest of the income distribution is found to be particularly important. Ostry et al. (2014) confirm the finding that lower inequality (after taxes and transfers) is associated with faster and more sustainable growth, and also find that policies that redistribute income appear generally benign in terms of its impact on growth; the authors only identify evidence of negative impacts in extreme cases. They conclude that "the combined direct and indirect effects of redistribution—including the growth effects of the resulting lower inequality—are on average pro-growth."

**106. High inequality is detrimental to growth because it weakens social and human capital and could induce political and economic instability.** Cross-country evidence summarized by Ostry et al. (2014) suggests that inequality may be detrimental to growth through at least two channels: first, by undermining progress in health and education and reducing human capital accumulation; second by leading to political and economic instability with attendant negative effects on investment. Cingano (2014) shows that higher income inequality depresses skills development among those with poorer parental education background, both in terms of the quantity of education attained (e.g. years of schooling), and in terms of its quality (i.e. skill proficiency). Alesina and Perotti (1996) show on a sample of 70 countries that higher income inequality increases socio-political instability, which in turns lowers investment and may lead to a "hollowing out of the middle class" (Kanbur et al, 2014). Birdsall (2010, p.158) concludes that "growth driven by and benefiting a middle class is more likely to be sustained—both economically, to the extent that the rent seeking and corruption associated with highly concentrated gains to growth are avoided, and politically, to the extent that conflict and horizontal inequalities between racial and ethnic groups are easier to manage...."

## Despite significant progress, income inequality in Malaysia remains a challenge

**Figure 59. Relative incomes of the Bumiputera group have been rising, though some gaps remain**

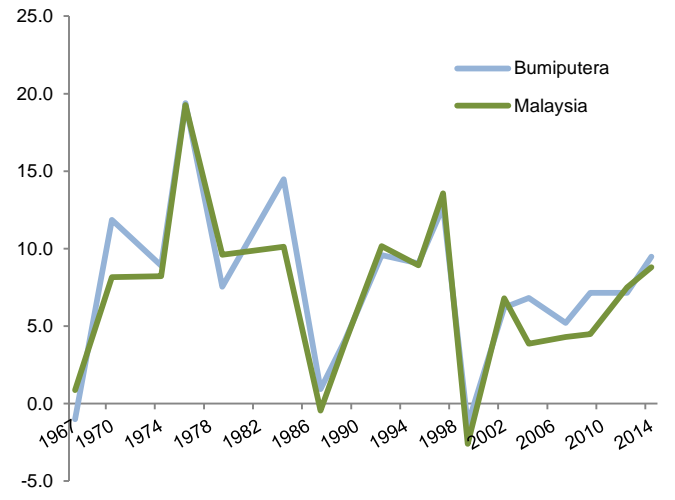
Ratio of average household income by ethnicity to average household income in Malaysia, percent



Source: HIS (various years), DOSM, and World Bank staff calculations

**Figure 60. With the exception of a few periods, growth patterns have been similarly high across groups**

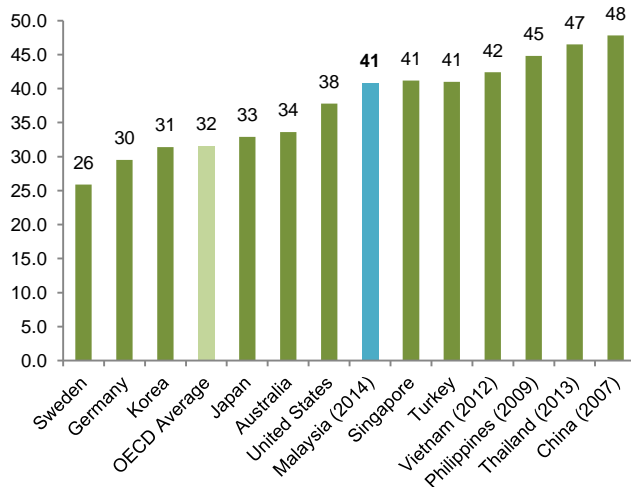
Growth rate of household incomes for Bumiputera and all households, percent



Source: HIS (various years), DOSM and World Bank staff calculations

**Figure 61. Inequality in Malaysia is lower than in other Asian countries, but higher than in advanced economies**

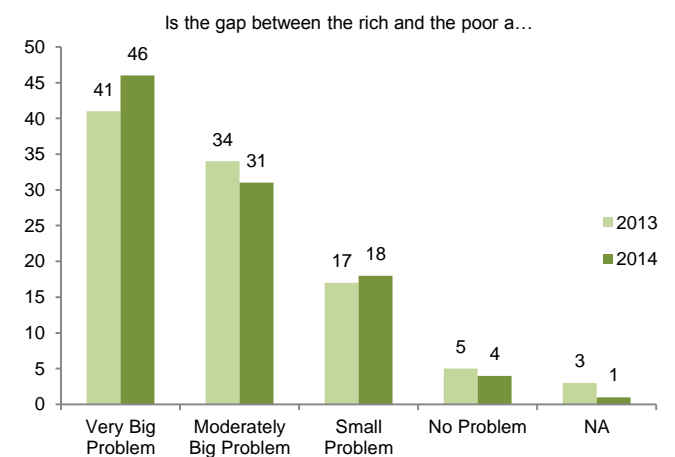
Gini coefficient based on disposable incomes



Source: OECD, Singstat, WDI, World Bank staff calculations  
Note: Gini estimated from household income surveys

**Figure 62. Most Malaysians consider inequality a 'big problem'**

Percent



Source: Spring 2014 Global Attitudes Survey, Pew Research Center (N=1,010)

**107. In Malaysia's case, addressing inequality between ethnic groups arguably contributed to political stability that supported growth in the 1970s and 1980s.** Following the racial violence of May 1969, the Government implemented the New Economic Policy that aimed at eradicating poverty and restructuring society to remove the association between ethnicity and economic function. Although reducing overall inequality was not an explicit objective, most of the poor households were Bumiputera (65 percent of Bumiputera households were poor in 1970) and the Bumiputera were associated with lower-income occupations (especially agriculture). Therefore, the NEP is often credited with a reduction in inequalities in the period (e.g. Firdaus, 1997). Figure 59 shows that incomes of the Bumiputera converged towards the national average. At a more granular level, the NEP entailed an expansion in educational opportunities for Bumiputerans that helped build the nation's human and social capital. These inequality-reducing policies may have played a role in maintaining political stability, which in turn formed the backdrop for the

fast growth in the past 40 years. With high overall growth, all households benefited and with some exceptions household income growth was comparable between Bumiputeras and other Malaysians (Figure 60).

**108. Despite the progress noted above, measures of income inequality in Malaysia are high relative to advanced economies, and Malaysians perceive inequality as a problem.** While inequality in Malaysia has declined, including in recent years (Figure 58), and is lower than in some other Asian countries, it remains high compared to the high-income economies that Malaysia aspires to emulate (Figure 61). Moreover, according to the Pew Research Center Global Attitudes survey, 77 percent of Malaysians think the gap between rich and poor is a “big problem,” a number that has increased from 75 percent in 2013 (Figure 62; see Box 6 for a description of the survey). The topic has also been highlighted in a number of high-profile publications recently, including Muhammed (2014), the Malaysia Human Development Report 2013 (UNDP 2014), and Khazanah Research Institute’s report on the state of households (2014).

#### **Box 6. Perceptions of class and inequality: the World Values Survey & the Pew Global Attitudes Survey**

The World Values Survey (WVS) is a study of changing values and their impact on social and political life. Since 1981, the survey has been conducted by a global network of social scientists in over 100 countries which contain almost 90 percent of the world’s population. The largest cross-national, time series study of its kind, the WVS is amply used by government officials, research and policymaking institutions, and multilateral organizations including the World Bank.

Malaysians first participated in the WVS in 2006 and again in 2012. In both cases, respondents were asked a series of questions on their personal values and beliefs, general views on politics and the economy, confidence in various institutions, as well as other contemporary social issues, based on a globally standardized questionnaire. In the latest wave of surveys from March to June 2012, a total of 1,300 Malaysians aged 18 to 80 years old responded. Interviews were conducted face-to-face in three languages: Bahasa Malaysia, English and Mandarin. The sample, constructed using probability proportional to size techniques, is considered representative of the country’s adult population.

Headquartered in Washington DC, the Pew Research Center is a nonpartisan ‘fact tank’ that informs the public about issues, attitudes and trends shaping America and the world. Since 2002, the Global Attitudes Project has conducted public opinion surveys in 63 countries on various themes of global importance. In the most recent edition of the survey (Spring 2014), Pew interviewed 48,643 participants in 44 advanced, emerging and developing countries on economic opportunity and inequality. Using a standardized questionnaire, respondents were asked to evaluate the severity of the gap between the rich and poor in their country, the main reasons for this gap and policies that would most likely alleviate the disparity, as well as their outlook on the future.

In Malaysia, fieldwork for the Global Attitudes survey took place between April 10 and May 23, 2014. A total of 1,010 adults aged 18 and above participated in the survey, which was administered face-to-face in Bahasa Malaysia, English and Mandarin. The researchers used multi-stage cluster techniques, stratifying by state and urbanity, to come up with a representative sample of the adult population, excluding difficult to access areas in Sabah and Sarawak.

Sources: World Values Survey (2012) and Pew Research Center (2014)

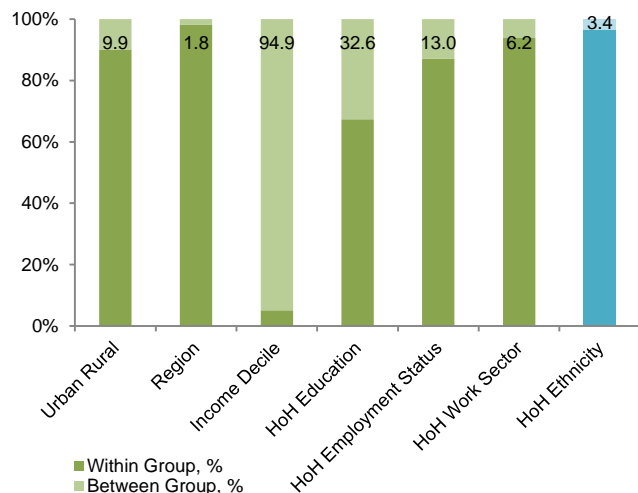
### **Income-based policies are likely to have the largest impact on inequality**

**109. While addressing inequality between ethnic groups was critical in the past and gaps remain, most income inequality is currently within groups.** Income gaps between ethnic groups have declined, but have not yet been completely eliminated (Figure 59). However, a decomposition of income inequality between inequality ‘within’ group and inequality ‘between’ groups suggests that currently most inequality is within-group (Figure 63). Inequality between ethnic groups only explained 3.4 percent of overall income inequality in 2014. The only characteristic that explains a significant amount of inequality is inequality between groups based on the education of the head of the household, which accounts for more than 30 percent of overall inequality. Even urban-rural differences, which are thought to be a driver of inequality, in Malaysia’s case account for only 10 percent of total inequality.<sup>33</sup>

<sup>33</sup> Figures by gender and state not available for 2014. In 2012, the share inequality attributable to between-group differences by the gender of the head of the household was 2.5 percent, and that by the state where the household was located was 13.4 percent.

**Figure 63. Inequality between ethnic groups only accounts for 5 percent of overall inequality**

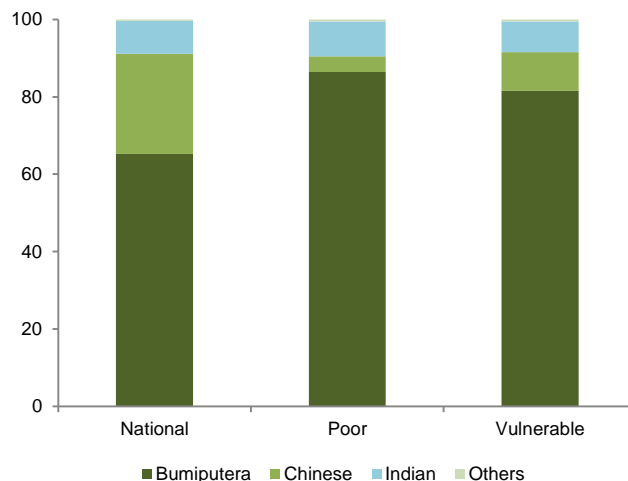
Income inequality based on Theil L or GE(0): Contribution of Within- and Between-Group Differences



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 64. The Bumiputera group is still over-represented among the poor and vulnerable groups**

Percent of households



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**110. Ethnic dimensions to income inequality remain and should be addressed, but broad-based policies are likely to have a greater impact.**

It is important to recognize that challenges related to Malaysia's multi-ethnic society have not disappeared, including in how they affect household income opportunities. For example, Lee and Muhammed (2014) present evidence that ethnic Malay job market candidates receive fewer calls for interviews than similarly-qualified ethnic Chinese candidates. Moreover, Figure 64 shows that the Bumiputera group remains over-represented in the poor and vulnerable groups. Nevertheless, given the evidence in Figure 63, as well as the analysis that income-based inequality in educational attainment and outcomes also surpasses remaining gaps based on ethnicity, broader policies for raising incomes of the bottom of the income distribution are more likely to provide the largest gains in reducing inequality and boosting shared prosperity.

**Which groups should be targeted?**

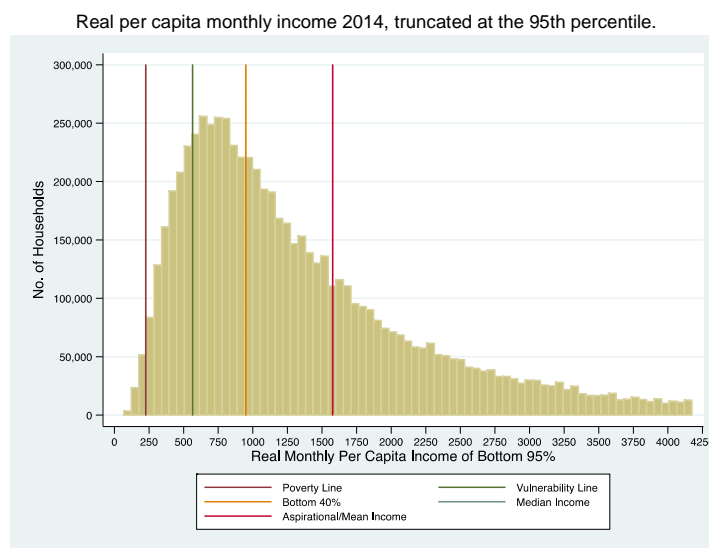
**111. Reducing inequality implies raising the incomes of groups at the bottom of the income distribution – but what should be the income cut-off?** Having made the case for adopting policies that favor households at the bottom of the income distribution (and which will therefore reduce inequality), the next step is to decide on what share of the income distribution should be targeted. The next section addresses this issue by looking at four distinct groups, ordered by income levels: the absolute poor; those that are vulnerable to falling into absolute poverty if faced by a loss of income or unexpected expenses; the "aspirational group" that is not at significant risk of falling into absolute poverty, but who has yet to meet their aspirations of a 'comfortable' or 'middle-class' lifestyle; and the middle and upper classes, which by definition have largely met those aspirations.

**112. Although many valid income cut-offs have been proposed, this chapter presents one set of cut-offs for discussion based on the poverty line and mean (average) incomes.**

In this chapter, the discussion on target groups for policy interventions as it relates to shared prosperity focuses on three income groups: the poor (those below the national Poverty Line - PL), the vulnerable (above the Poverty Line and below the Vulnerability Line of 2.5 times the poverty line), and the aspirational (above the Vulnerability Line and below the middle class threshold, which we suggest may be the mean income). In 2014, the vulnerable group comprises slightly more than 1.0 million households or about 15 percent of total population, while almost 3.6 million aspirational households accounted more than 51 percent of the

total population. (Figure 65 and Table 7).<sup>34</sup> From the outset it should be noted that there are other valid ways of describing these groups, as will be discussed below. The intention of the present analysis is not to argue for a precise definition, but for the notion that the aspirational group (which may be otherwise defined) has unique characteristics and needs compared to the poor and vulnerable. In the remainder of this section we consider each group in turn.

**Figure 65. Income Distribution with Poverty, Vulnerability and the Aspirational thresholds**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations.

**Table 7. The Poor, Vulnerable, Aspirational, and Middle- and Upper-Class households**

Basic Statistics						
Group	Threshold Households are:	Income (RM per person per month)			Share & No. of Households	
		Min	Max	Mean	%	Number
Poor	< Poverty Line (PL)	67	226	183	1.0	71,466
Vulnerable	PL – 2.5xPL	226	565	426	14.8	1,037,618
Aspirational	2.5xPL – Mean Income	565	1,576	1,004	51.1	3,592,065
Middle & Upper	>Mean Income	1,577	64,949	3,021	33.0	2,321,082
Memo: "Bottom 40"		67	949	618	40.0	2,809,016

Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations.

Note: Income is based on the real per capita monthly post-all transfer income. Poverty Line is median PL.

**113. Globally and in Malaysia, there has been a focus on the bottom 40 percent of the income distribution as the target group for policies aimed at shared prosperity.** While this measure is simple to track and puts a focus on the distribution aspects of economic growth, its relevance in specific country contexts is not always clear (see Box 7). For example, in Malaysia many Government programs under the 10<sup>th</sup> Malaysia Plan and the Government Transformation Program are generally targeted at the bottom 40 percent, but in practice it became clear that extending some programs to a wider eligible group was important (e.g. BR1M); meanwhile, there was a recognition that some programs should remain confined to the neediest (e.g. social welfare programs). Therefore, while keeping track of progress of the welfare of the bottom 40 percent remains helpful (especially in terms of international comparisons and as a general bias towards the bottom of the income distribution), a more fine-grained approach to poverty, vulnerability and middle-class aspirations may be beneficial in the design of policy interventions.

<sup>34</sup> This chapter uses preliminary data from the 2014 household income survey whenever available. When data for 2014 is not available, data for 2012 is used, as indicated.



### Box 7: The Bottom 40 percent

The World Bank Group – and Malaysia before it – has put the spotlight on the bottom 40 percent of the income distribution. The World Bank announced in 2013 that it would operationalize the objective of promoting shared prosperity by monitoring changes in income of the bottom 40 percent of the income distribution. Earlier, in the New Economic Model (NEM), Malaysia used the bottom 40 percent as a reference group for social assistance. The main reason put forward for the focus on the bottom 40, as expressed by Jaime Saavedra, was that it represented “a simple metric that signals the need for a growing economy, along with a fundamental concern for equity.” The first part is key: this metric is calculated by many countries (including Malaysia), and is therefore easy to monitor over time and across countries. In fact, the motivation given in the NEM for focusing on the bottom 40 was that their income had experienced the slowest growth among income groups. Empirically, Palma (2011) found that recent trends of the disparity between the income shares of the top 10 percent and the bottom 40 percent within countries has been increasing over time, while the income share of the fifth to ninth deciles has remained roughly constant.

The relevance of the 40 percent threshold in a specific country context is not always obvious. The bottom 40 percent in one country corresponds to different income groups in a different country. The composition of incomes among the bottom 40 also varies substantially across countries; in some countries it may encompass only the poor, while in other countries it can come predominantly from vulnerable households. In the case of Malaysia, a definition of vulnerable that refers to the bottom 40 would entail assuming an income shock of -80 percent, or an expenditure shock of approximately four times the poverty line, either of which are highly unlikely. Moreover, as discussed below, more than 40 percent of households are not completely satisfied with their financial situation and few observers would use the income of the 40<sup>th</sup> percentile (less than RM900 per person per month) as a cut-off for the middle class.

Given the simplicity of the indicator in monitoring and promoting shared prosperity, many socio-economic indicators of the bottom 40 remain relevant for policy formulation in Malaysia. For example, currently 40 percent of households are not covered by the EPF scheme and are thus vulnerable to the lack of old-age savings. In addition, the bottom 40 has many characteristics in common with the poor and vulnerable: most work in agriculture, with 60 percent of rural households having incomes below the national 40<sup>th</sup> percentile. Most households are large, and are headed by individuals having education no higher than lower secondary. Informal workers and those in the agriculture sector are the groups with high concentration of households below the bottom 40 percent.

The officially reported bottom 40 percent in Malaysia is identified based on total nominal household income and does not take into account the household size or different standards of living across regions, as internationally practiced. If the bottom 40 is identified based on real per capita income, households that qualify may have unique socio-economic characteristics that could be important in designing social welfare policies. Ultimately, whether the bottom 40 or other income thresholds (such as below half-median or below mean income) is relevant for social welfare policy will depend on Malaysia's specific context and agenda for enhancing shared prosperity.

Source: Authors

### The poor, while shrinking in number, remain the priority

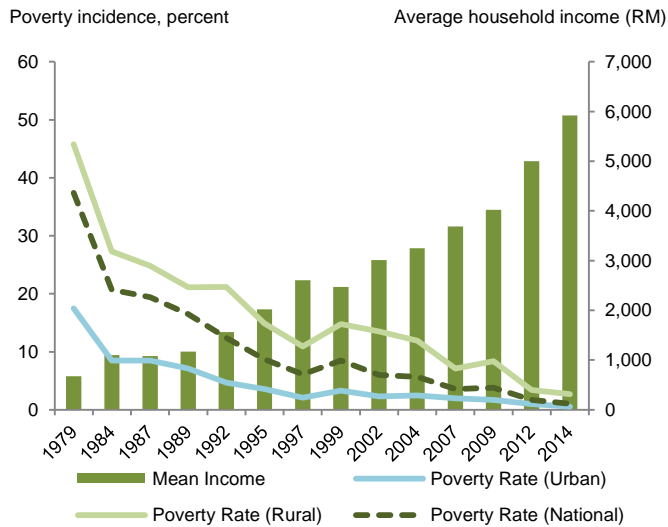
#### **114. Malaysia's success in reducing poverty means that the number of households in absolute poverty has dropped.**

In 1970, about half of the population was below the poverty line. In one decade, the poverty rate was halved and has constantly declined since then (Figure 66). By 2014, only 1.0 percent of households are considered poor, with those considered ‘hardcore poor’ (households with income below the food poverty line) consisting of only 0.1 percent of all households.<sup>35</sup> The incidence of poverty has also declined significantly across states and ethnic groups (Figure 67). In addition, the poverty gaps between urban and rural areas have narrowed in recent years, after a decade of widening gaps in the 2000s. The reduction in poverty is linked to fast economic growth in the past four

<sup>35</sup> These calculations take into account all income transfers.

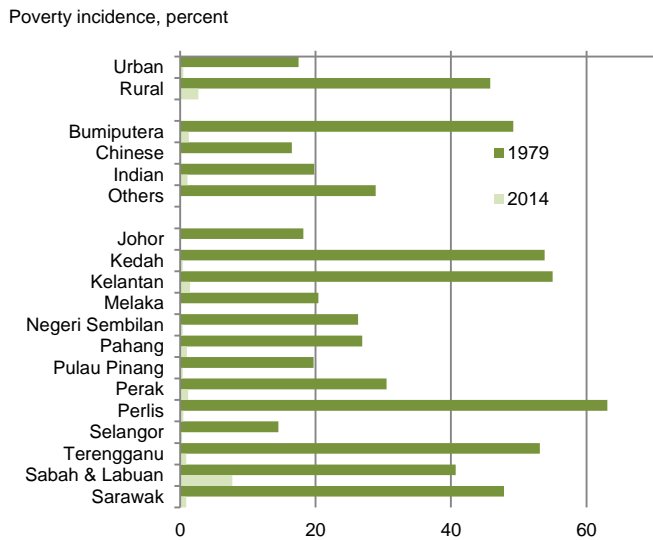
decades that translated in consistent increases in average household income. While poverty fell at an annual rate of 2.8 percent between 1979 and 2014, average household income rose at a compounded annualized rate of 6.4 percent.

**Figure 66. The poverty rate declined while incomes increased...**



Source: DOSM, World Bank staff calculations

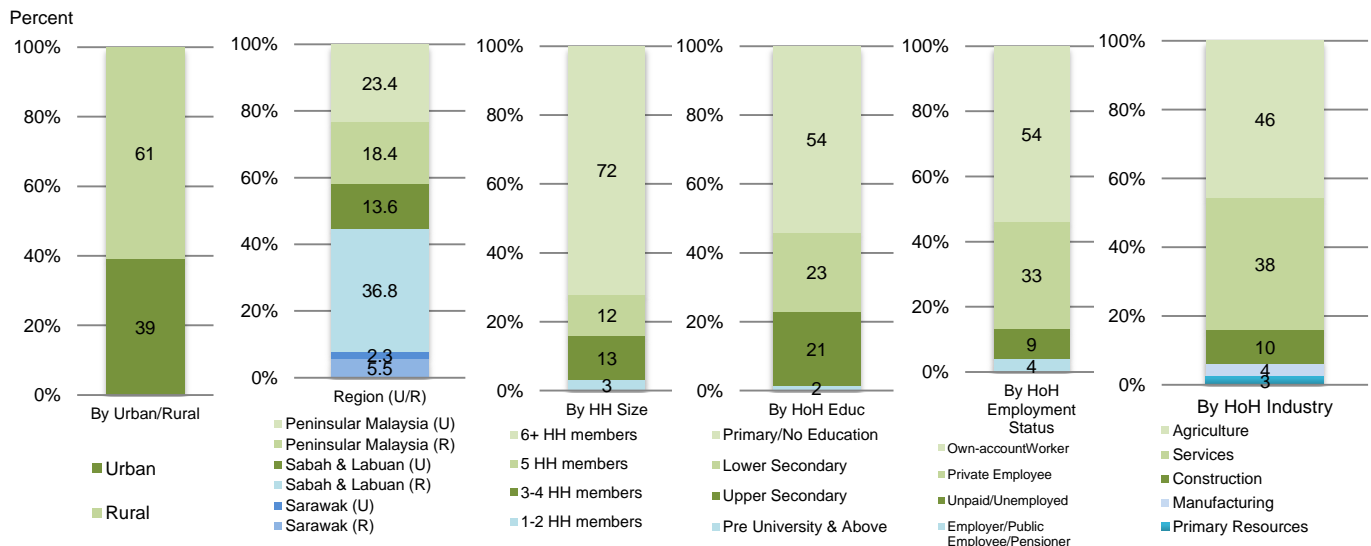
**Figure 67. ... across all areas and ethnicities.**



Source: DOSM, World Bank staff calculations

**115. Despite the impressive achievements, some pockets of poverty remain among geographic and socio-economic groups.** Figure 68 identifies pockets of poverty among geographical and socio-economic status. Although significant reductions in poverty have been observed in all states, Sarawak and especially Sabah concentrate most of the country's remaining poor. In 2014 more than half of poor households reside in Sabah (50 percent) and Sarawak (8 percent). Poor households are also concentrated in rural areas. Over 60 percent of the poor are in rural areas, compared to only 23 percent of households in Malaysia. Pockets of poverty also exist among certain socio-economic groups such as among households with 6 or more members (72 percent of poor households are of this size), headed by those having education no more than primary (54 percent), working as own-account workers (54 percent), and in agriculture (46 percent).

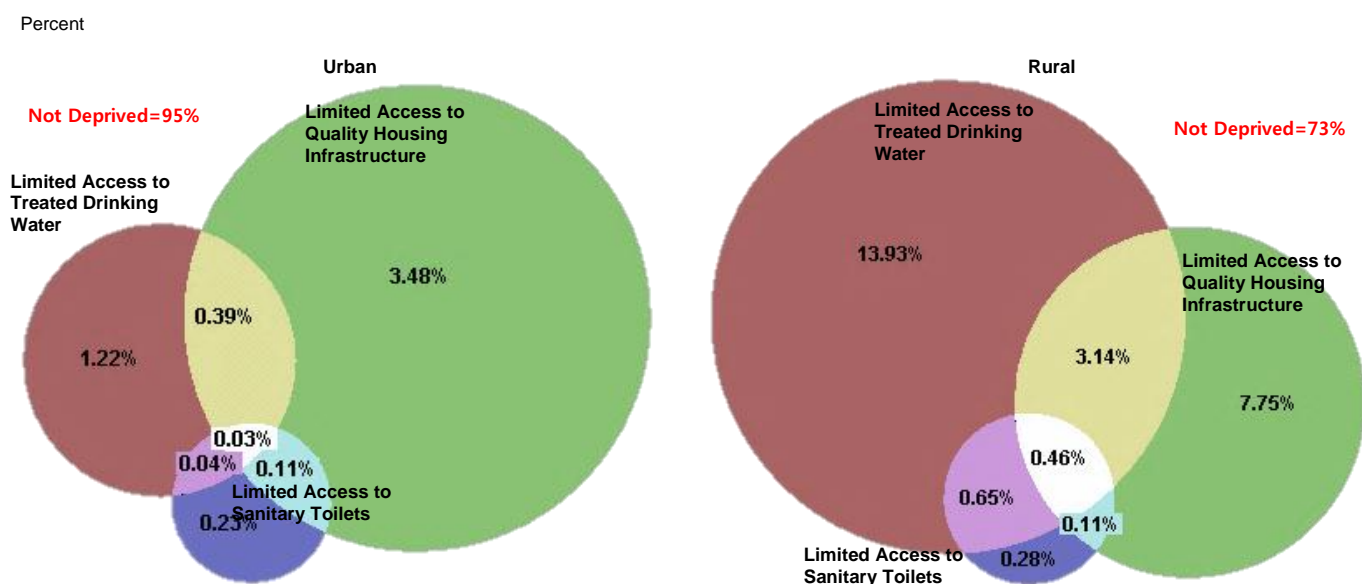
**Figure 68. Pockets of poverty remain across geographical areas and socio-economic status**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**116. Deprivations in outcome dimensions outside of income also affect relatively few households, but gaps can be further narrowed.**<sup>36</sup> Figure 69 shows that rural and urban households have different levels of deprivation and reinforce the importance of focusing on rural areas in the context of addressing the remaining poverty challenges.<sup>37</sup> In urban areas almost all households have adequate access to treated drinking water and sanitation, compared to only 81 percent of rural households. One interesting difference that emerges is that the most significant deprivation in urban areas is limited access to quality housing infrastructure, which affects about 4 percent of households. The key deprivation affecting rural households, on the other hand, is access to treated drinking water. In this context, the improvements under the rural basic infrastructure national key result area (NKRA) are quite relevant. Between 2010 and 2012, the NKRA connected 187,567 rural households (over 10 percent of rural households) to clean, treated water. Further improvements towards meeting the NKRA's target of 95 percent coverage of households in Sabah and Sarawak by 2015 will therefore be critical to address this remaining challenge.

**Figure 69. Limited access to quality housing, treated drinking water, and sanitation**



Source: HIS 2012, DOSM, World Bank staff calculations

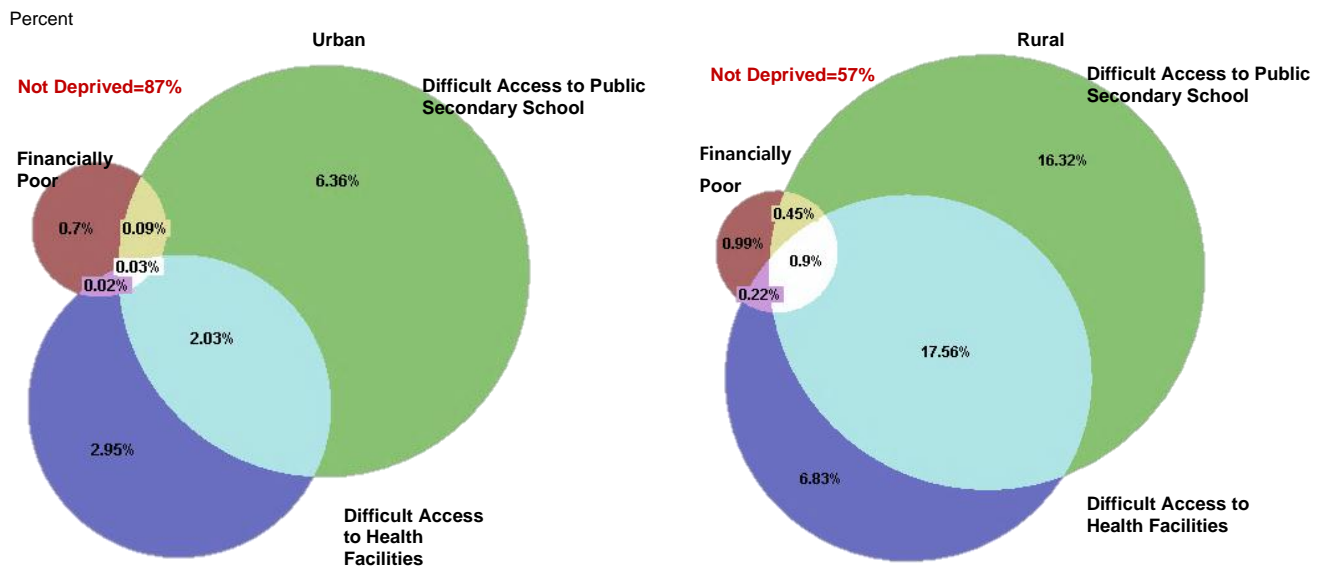
**117. More prevalent is the relative difficulty in access to secondary schools, particularly in rural areas.** Many non-poor households by the income measure live relatively far from health facilities and secondary schools. Deprivations in at least one of these two dimensions, measured as living more than 5km from the nearest facility, are relatively high in rural areas (42 percent). As Figure 70 shows, 34 percent of households in rural areas live more than 5 km away from the nearest secondary schools and 16 percent of households live near health facilities, but not a secondary school. Although the Government has put in place a number of programs to increase access of rural children to secondary schools<sup>38</sup>, accelerating progress along this dimension is critical, considering the importance of completing secondary education for improving workers' abilities to command higher wages in the labor markets and boosting household incomes. The situation in urban areas is significantly better, with close to 87 percent of households not encountering difficulties to access either health or educational facilities. In urban areas, only 8.4 percent of households live more than 5km away from a school. This is not surprising, and one conclusion from this analysis is that urbanization, if well managed, can also help in the shared prosperity agenda by facilitating access.

<sup>36</sup> The terminology of poverty as "deprivation" and introduction to different notions of deprivation can be first found in Townsend (1979).

<sup>37</sup> The analysis in this section draws on data from 2012 since 2014 data on access to amenities is not yet available.

<sup>38</sup> In rural areas, the Government has enhanced access by introducing the concept of comprehensive schools (K9), where pre-school to lower secondary education is offered in the same school. In addition, many public secondary schools in rural areas also provide hostel facilities when distance or transportation is an issue. The pre-requisites to enter boarding schools are also less restrictive for rural students.

**Figure 70. Over 40 percent of students in rural areas live more than 5km away from the nearest secondary school.**



Source: HIS 2012, DOSM, World Bank staff calculations

Note "Difficult access" defined as living more than 5km away from the nearest facility.

**118. As the number of poor has declined, there have been calls for Malaysia to switch to a relative poverty line.** In many upper middle or high-income countries where absolute poverty is already relatively low, the poverty line is often defined in relation to the overall distribution of income. The OECD frequently uses a definition of poverty lines at 50 percent of median income. The New Economic Model calls for a switch to relative poverty measurement, a call that is echoed in the UNDP Malaysia Human Development Report 2013. The argument for relative poverty lines goes back to the earlier discussion of how incomes of a reference group affect the well-being of households. Once basic needs have been met, the argument goes, deprivation is measured relative to the income of the reference group, which is generally taken to be the median, or 'typical' household in a society. The argument further notes that in the context of most high-income economies such a definition would require relatively limited transfers to eliminate even such relative poverty (Marx and van den Bosch, 2007). While a relative poverty line helpfully focuses the discussion of social policies on distributional issues, there may be some advantages of retaining an absolute poverty line while expanding the number of groups that are targeted by policy interventions. This is discussed in more detail in Box 8 below.

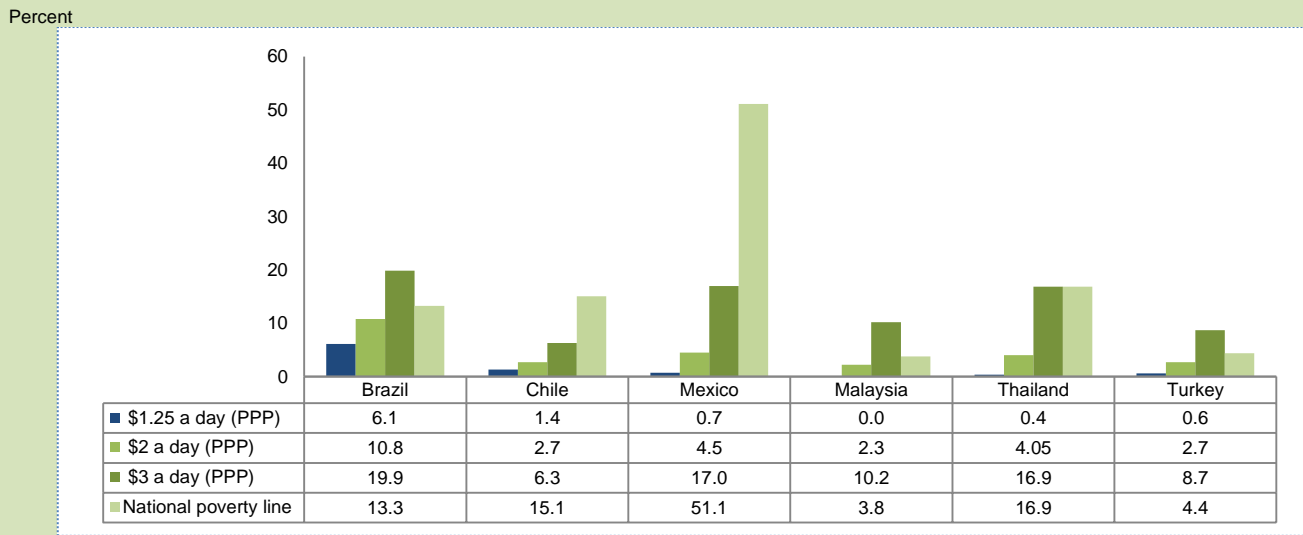
### Box 8. Should poverty in Malaysia be redefined?

Malaysia follows a definition of poverty that is based on an absolute measure, which is standard among developing countries. Poor households are defined as those having income below a poverty line that captures the cost of meeting basic needs, including nutrition, clothing, housing, and transportation. In Malaysia, poverty lines are calculated for each household by taking into account household size and demographic composition (age, gender), as well as different standards of living across areas. The resulting average poverty line income in Malaysia translates to approximately USD3.50 per person per day in purchasing-power adjusted constant 2005 US dollars. This is on the high end of most standardized lines between USD1.25 and USD4 per day, used in cross country analysis by the World Bank. Across countries, national absolute poverty lines also tend to increase in line with average income, reflecting countries' development stages and the fact that prices tend to increase with levels of development.

The choice of a national poverty line is a social policy decision that depends on the local context and the intended use. In Latin America and Caribbean countries, the median national poverty line in 2010 was about USD4 per capita per day (in 2005 purchasing power parity terms). Figure 71 presents the poverty rates at different thresholds in several upper middle-income countries in 2009. Similar to Malaysia, Brazil, Turkey, and Thailand have poverty rates based on national poverty lines between the USD2 a day and USD3 a day cut-offs. By contrast, Mexico and Chile have poverty rates based on national poverty lines way above the USD3 a day threshold. Again, these various thresholds depend

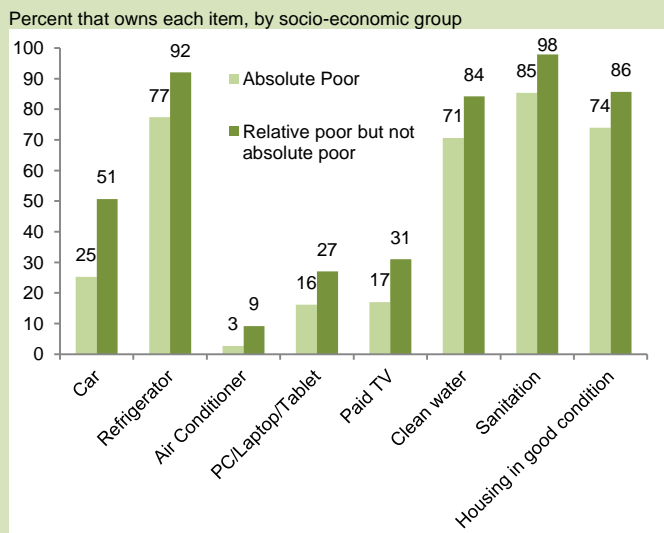
on what extent the poverty line will be used as a policy-relevant measure beyond a common benchmark.

**Figure 71. Poverty Headcount index (2009) using different poverty lines**



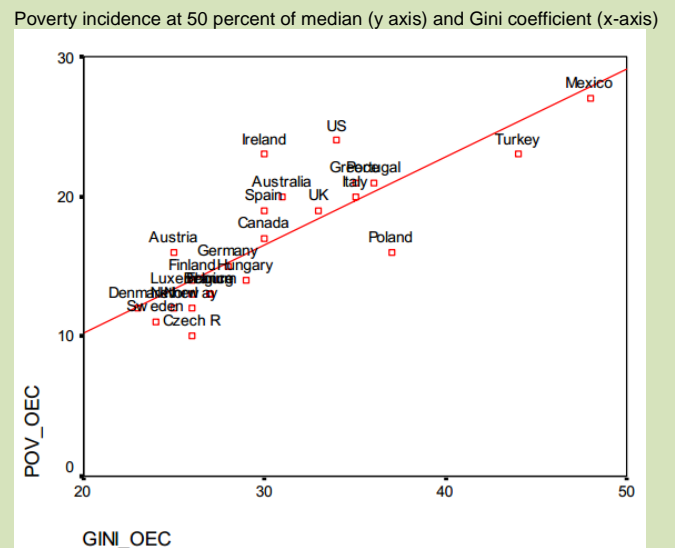
Source: WDI 2013, World Bank staff calculations

**Figure 72. The relative poor face fewer deprivations compared to the poor**



Source: HIS 2012, DOSM, World Bank staff calculations

**Figure 73. Relative poverty is highly correlated with inequality measures**



Source: Marx and van den Bosch, 2007

While a relative definition of poverty highlights distributional issues, there is a case for retaining an absolute measure while at the same time expanding the number of target groups. Moving towards a relative measure diminishes the existence of 'absolute' or 'primary' poverty as it is conventionally understood. From a policy design perspective, it is likely helpful to distinguish the characteristics and needs of the absolute poor from those who are vulnerable or 'aspirational', as the required interventions may be different in nature for each group. Figure 72 shows that the absolute poor face a much larger degree of material deprivation compared to the remaining relative poor in Malaysia (notably, more than half of 'relative poor' households own a car, compared to a quarter of the absolute poor).<sup>39</sup> Moreover, relative measures of poverty are highly correlated with income inequality (Figure 73), which raises the question as to whether a separate focus on inequality (by considering additional target groups for policy

<sup>39</sup> The relative poor are defined as those earning less than 1/2 of the median income, which translates into the bottom 20 percent.

intervention) would be more helpful for policy makers, rather than abandoning absolute poverty altogether.

Source: Authors

### Vulnerability to poverty is also limited and declining

**119. Vulnerable households are those that are not poor but face a meaningful risk of falling back into absolute poverty.** The notion of “vulnerability” revolves around the fact that households are exposed to losing their source of income or to incurring unexpected expenses, both of which could move them into poverty. A number of practical definitions of vulnerability or “vulnerable groups” have been proposed, as discussed in Box 9 below. While there is no one accepted definition and many more technically sophisticated approaches have been developed, this chapter adopts a simple simulation approach similar to that of India and Vietnam (see Box 9). It assumes that every household is hit by a shock to income or expenses. Every household that falls below the poverty line under this simulation is considered vulnerable. As noted, the objective is not to advocate for a particular technical approach or definition but to present the concept of ‘vulnerability’ as one linked to risks of falling into absolute poverty, of which the simple definition used here is one example.

#### Box 9: Definitions of vulnerability

According to Alwang et al (2001): “A household is said to be vulnerable to future loss of welfare below socially accepted norms caused by risky events. The degree of vulnerability depends on the characteristics of the risk and the household's ability to respond to risk. Ability to respond to risk depends on household characteristics – notably their asset-base. The outcome is defined with respect to some benchmark—a socially accepted minimum reference level of welfare (e.g., a poverty line). Measurements of vulnerability will also depend on the time horizon: a household may be vulnerable to risks over the next month, year, etc.”

In line with the adoption of a relative poverty line by the OECD, the European Union identifies households ‘at risk of poverty’ as those earning up to 60 percent of the national median. The UNDP proposes measures of vulnerability based on whether households face deprivations on a certain number of dimensions (UNDP, 2013). Empirically, the vulnerable group can be defined by assuming plausible parameters for the shocks households are exposed to, and the associated probability that households would fall into poverty if the shocks materialize. Different approaches have been developed to transform the concept of vulnerability into formal definitions for statistical purposes. These follow actual movements in and out of poverty over time to establish the probabilities of falling into poverty at given income levels, and typically use country-level data sources such as sequential household surveys, both for panel and non-panel households. Two such approaches are as follows:

**Lopez-Calva & Ortiz-Juarez (2011):** The authors propose that the vulnerable are those above the traditional poverty line but below a ‘middle-class’ threshold, with the middle class being defined as having a less than 10 percent chance of falling into poverty. This line between the vulnerable and the middle class is constructed in three stages – the first ‘identifies actual characteristics that are associated with movement in or out of poverty’; the second constructs the ‘probabilities of falling into poverty’; and the third ‘estimates an income level associated to’ the probability of falling into poverty. When applied to data from South America, this yields an approximate income level for vulnerability of USD8.50, USD9.70, and USD9.50 per day in Chile, Mexico, and Peru respectively, and lie around the 60th percentile of the income distribution. This methodology allows for comparisons over time and across geography.

**Dang and Lanjouw (2014):** The authors propose two dynamic approaches for defining the non-poor but vulnerable using either panel or cross sectional household survey data. The first approach identifies a population which is ‘clearly not vulnerable’ and defines the vulnerability line as ‘the lower bound income level of this population group’. The second approach identifies a population which is ‘clearly not poor’ but is at ‘real risk of falling into poverty’, and defines the vulnerability line as ‘the upper bound income level for this population’. This methodology also allows for comparisons over time and across geography.

In practice, most countries use abbreviated approaches to measuring vulnerability for practical and programmatic

purposes. Selected approaches are summarized in Table 8.

**Table 8. Selected examples of practical approaches to measuring vulnerability**

Country	Approach	Level
<b>Canada</b> LIM "Low Income Measures"	Economic distance, using equivalised disposable income below threshold.	50% of median household income, adjustment for <i>equivalent household size</i> .
<b>Canada</b> MBM "Market Basket Measure"	Absolute measure	Basket of goods and services representing a modest basic standard of living, priced for different localities – regions and urban/rural strata.
<b>Canada</b> LICO "Low Income Cut-Offs"	Fraction of food vs non-food expenditure.	Income threshold at which families are expected to spend 20 percentage points more than the average family on food, shelter and clothing.
<b>EU</b> "at-risk-of-poverty line"	Economic distance, using equivalised disposable income below threshold.	Threshold set at 60% of the national median equivalised disposable income after social transfers.
<b>India</b>	Vulnerability line as a percent above poverty line.	Income between 1.25x to 2.00x the poverty line.
<b>Japan</b> "relative poverty"	Economic distance, using equivalised disposable income below threshold.	Threshold set at 50% of the national median equivalised disposable income after social transfers.
<b>OECD</b> "relative income poverty"	Economic distance, using equivalised disposable income below threshold.	Threshold set at 50% of the national median equivalised disposable income after social transfers.
<b>Vietnam</b>	Vulnerability line as a percent above poverty line.	Threshold set at 1.30x the national the poverty line.

Source: Authors

**120. Based on simple simulations of income and expenditure shocks, approximately one in six Malaysian households can be considered vulnerable.** Two simple simulations of shocks can be done to identify vulnerable segments of the population. The first assumes that incomes remain stable, but the poverty line increases due to an unexpected increase in expenses. This may be the case if a household faces unanticipated increases in food costs, or experiences loss of property due to fire or theft. The second simulation reduces income to simulate income losses – for example, from unemployment or illness. According to the first approach, 16 percent of Malaysian households would be considered poor if the required expenses increased by 150 percent, or if the actual poverty line was increased by 2.5 times. Similarly, 16 percent of households would be classified as poor if there is an income shock equivalent that causes incomes to drop by nearly 65 percent. Such a shock would occur if, for example, the sole breadwinner of a household is unable to work for about 7 months.<sup>40</sup> Table 9 presents the results of both simulations.

**Table 9. Simulations of vulnerability to poverty using price and income shocks**

Expense Increase			Income Lost		
Increase in Poverty Line	Poverty Rate (%)	Change from Actual (%)	Decrease in income	Poverty Rate (%)	Change from Actual (%)
Actual PL	1.0	0	Actual	1.0	0
1.1xPL	1.4	39	Less 20%	1.94	90
1.2xPL	1.9	84	Less 35%	3.69	262
1.5xPL	4.1	300	Less 50%	7.43	628
2.0xPL	9.3	809	Less 60%	12.45	1,121
2.5xPL	15.8	1,448	Less 65%	16.37	1,505
2.8xPL	20.0	1,861	Less 70%	21.94	2,051

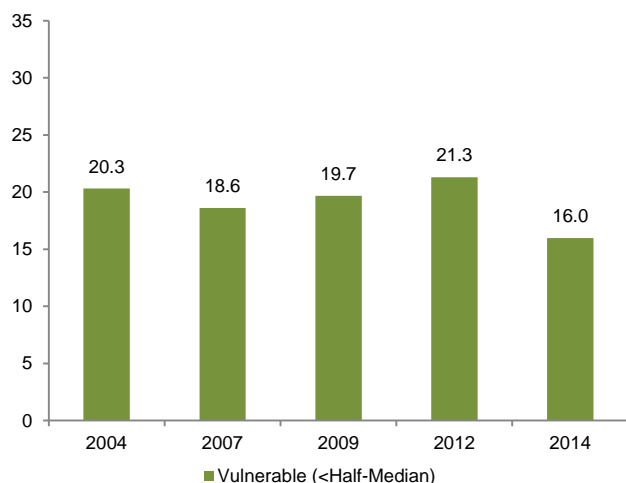
Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**121. The bottom 16 percent of the income distribution identified as poor and vulnerable is similar to the proportion of the population with household income below half of the median level.** 16 percent of Malaysian households earn RM1,813, or half the median income in 2014. In later discussions, it will be shown that the choice of the bottom 16 percent of income distribution in Malaysia also has linkages to many relevant household welfare indicators that are different from those possessed by poor and aspirational households.

<sup>40</sup> Income simulations take into account household assets such as savings and investments that can be tapped to meet unexpected income losses, as well as the distinction between market and transfer incomes, with the shock only applying to the former.

**Figure 74. The share of the population below 50 percent of the median has oscillated...**

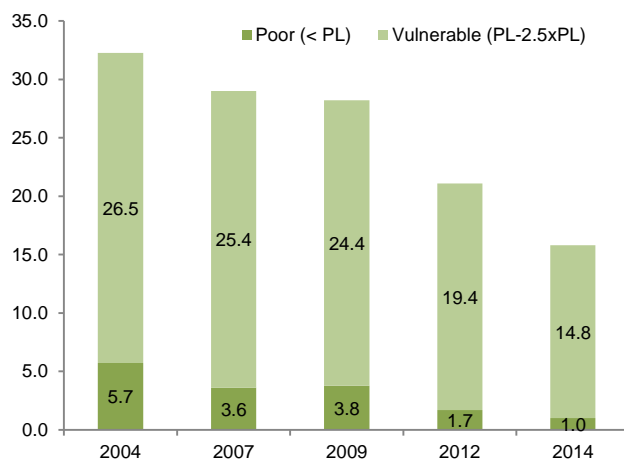
Share of households earning less than 50 percent of median income, percent



Source: HIS (various years), DOSM, World Bank staff calculations

**Figure 75. ... whereas the number of poor and vulnerable households has consistently declined**

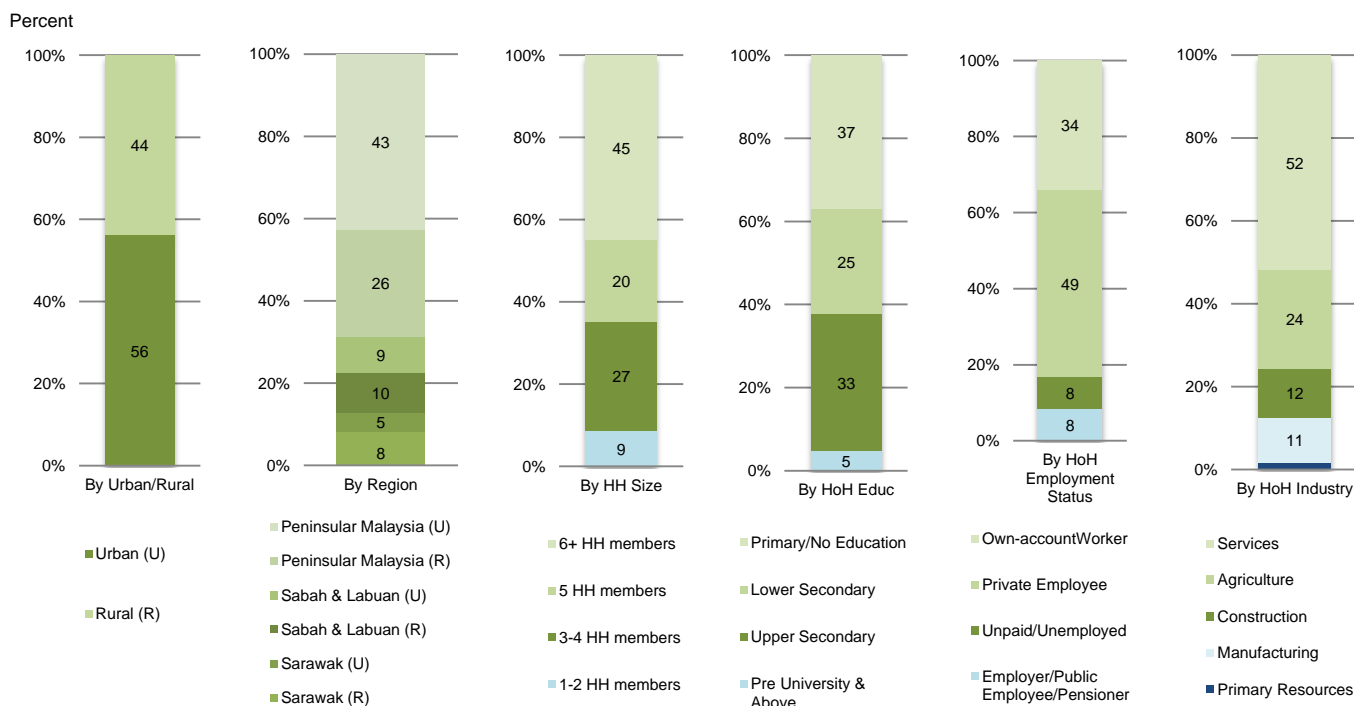
Share of households earning less than 2.5 times the poverty line, percent



Source: HIS (various years), DOSM, World Bank staff calculations

**122. Vulnerability is still linked to an absolute measure, and unlike the share of the population earning at least half of median income, the share of poor and vulnerable households has declined consistently since 2004 in tandem with poverty.** Although in 2014 (and 2012) the proposed definition of vulnerable households is nearly equivalent to half the median income (Figure 74), the two definitions are distinct. While relative poverty based on the half-median threshold has oscillated, the share of poor and vulnerable households (defined as earning less than 2.5 times the poverty line) has declined from 32.2 percent in 2004 to 15.8 percent in 2014 (Figure 75).

**Figure 76. Incidence of vulnerability across geographical areas and socio-economic status**



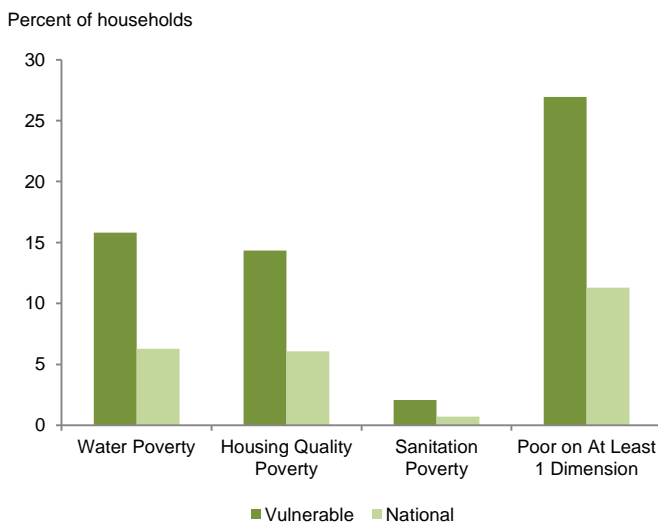
Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations



**123. The average vulnerable household is poorly educated and large – but unlike the average poor household it is urban, and derives its income from the services sector.** Based on the threshold of 2.5xPL, most vulnerable households live in urban areas of Peninsular Malaysia. However, the incidence of vulnerable households is higher in rural areas. On the surface, vulnerable households do not appear to be very different from those classified as poor: a higher incidence of vulnerability is found in large households with 6 or more members. Vulnerable households are most frequently headed by a person having no more than primary education (Figure 76). In terms of employment, vulnerable households also tend to be headed by those working as private employees (49 percent) and own-account workers (34 percent). The most meaningful difference between the poor and the vulnerable groups is that heads of vulnerable households are more likely to work in the services sector (52 percent), followed by agriculture (24 percent), whereas the poor are more likely to be in agriculture. This is consistent with a higher share of vulnerable households in urban areas.

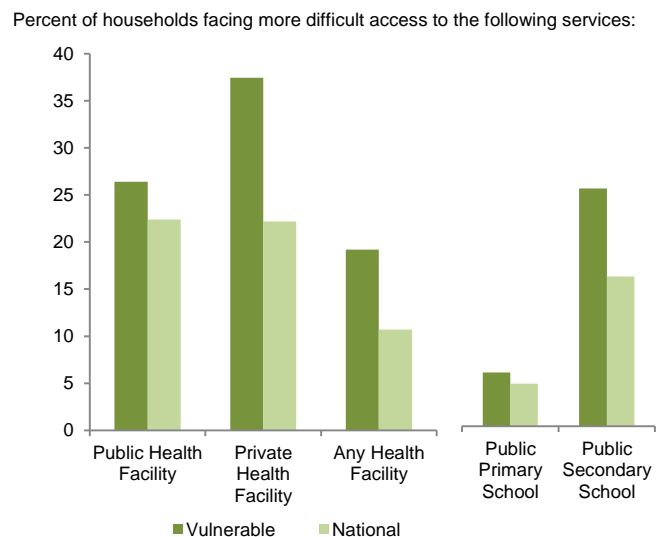
**124. Vulnerable households still experience a high incidence of deprivation to non-monetary poverty.** Although these figures are expected to have declined since then, as of 2012, more than a fourth of vulnerable households are deprived in at least one of the three selected dimensions: access to clean water, housing quality and sanitation (Figure 77). For example, about 15 percent of these households consume non-treated drinking water or live in deteriorating/dilapidated housing conditions, compared to 5 percent of all households nationally. Vulnerable households are also more likely to live in areas relatively far from health facilities and schools. While the average distance from a house to the closest healthcare facility is about 3 km, almost 20 percent of vulnerable households live more than 5 km away. Meanwhile, at least a quarter of vulnerable households have relatively difficult access to public secondary schools, compared to the 15 percent of all households nationwide (Figure 78).

**Figure 77. More than a quarter of vulnerable households are deprived on at least one dimension**



Source: HIS 2012, DOSM, World Bank staff calculations

**Figure 78. Many vulnerable households face difficulties accessing basic health and education facilities**



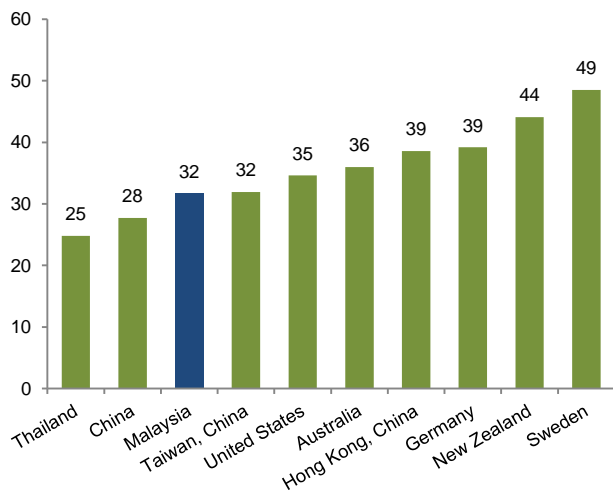
Source: HIS 2012, DOSM, World Bank staff calculations

### A large segment of the population aspires to join the middle class

**125. While the number of the poor and vulnerable may have shrunk, many Malaysians are not entirely satisfied with their financial situation and do not consider themselves as belonging to the “middle class”.** According to a survey (World Values Survey, 2011) only 32 percent of Malaysians said they were very satisfied with their financial situation (giving ratings of 8-10 where 10 means completely satisfied). This compares with 36 percent in Australia and 49 percent in Sweden (Figure 79). Similarly, only 41 percent considered themselves middle or upper class (including lower middle class), compared to 61 percent in Australia and 69 percent in Sweden (Figure 80). This may be in part due to peer effects discussed earlier: as the country has grown, the comparison income has increased. In any event, shared prosperity in upper-middle and high-income economies requires fulfilling the legitimate aspirations of this group.

**Figure 79. Malaysians tend to be relatively less satisfied with their financial position...**

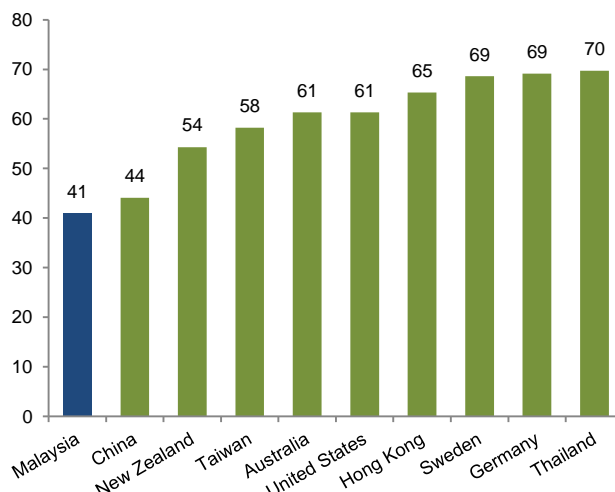
Share of respondents "very satisfied" with their financial situation (giving ratings of 8-10 where 10 means completely satisfied), percent



Source: World Values Survey 2010-2012

**Figure 80. ... and are less likely to include themselves in the middle class.**

Share of respondents reporting they belong to upper, upper-middle and lower-middle class, percent



Source: World Values Survey 2010-2012

**126. This "aspirational" group is defined as having incomes higher than the cut-off for the vulnerable group, but lower than the middle class threshold.** The previous section identified the poor and vulnerable groups; this section first defines the threshold of the middle class in order to arrive at the aspirational group.

*Definitions of middle class have a degree of subjectivity*

**127. Definitions of the middle class necessarily include a degree of subjectivity.** Definitions of what constitutes the 'middle class' differ across and within the social sciences. For economists, the middle class has been defined using absolute or relative levels of income, or a combination of the two. In addition, subjective measures look at those who self-identify as being part of this group, based on their own perceptions and aspirations. The World Values Survey, Pew Global and Gallup are examples of surveys to identify the middle class in this manner (see Box 6).

**128. While absolute measures of income facilitate the measurement of the global middle class, the difficulty lies in choosing a suitable measure for upper-middle income countries.** A common way of measuring the global middle class is to consider those with daily income per capita between USD10 and USD50, the mean incomes of Brazil and Italy, adjusted for purchasing power parity (Milanovic and Yithzaki, 2002). This definition is however problematic when it comes to many emerging markets and developing nations, as USD50 per person per day could arguably sustain a more comfortable lifestyle in these countries compared to advanced economies. The Asian Development Bank adopts a similar definition for developing Asia, but lowers the per capita income threshold to USD2-20 in 2005 purchasing power parity (PPP) terms. Consumption measures are also used; Banerjee and Duflo (2007) argue that households with daily per capita expenditures between USD2-10 in 2005 PPP should be considered as part of the middle class in developing countries. Nonetheless, the authors themselves admit that middle-class households would still be considered poor by developed country standards; for example, the US poverty line is about USD13 a day for a family of five. Although Ravallion (2009) adjusts this definition to households with consumption per capita between USD2 and \$13 a day at 2005 PPP, neither of these measures necessarily cater to analyzing an upper-middle income country such as Malaysia.

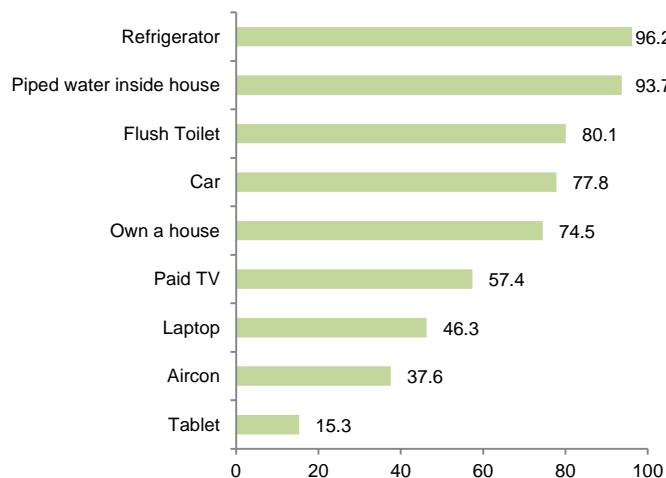
**129. Other methods use relative measures of the middle class to describe those around the midpoint of the income distribution.** The middle class is also often described as those with incomes in a given range around the mean or median of the income distribution. Easterly (2001) equates the middle class to those between the 20<sup>th</sup> and 80<sup>th</sup> percentiles of the household income distribution. Thurow (1987) defined the middle class as those with household incomes between 75 percent and 125 percent of median income, an approach followed by Birdsall, Graham and Pettinato (2000). Yet another approach, proposed by Lopez-Calva and Ortiz-Juarez (2011) is to categorize the middle class simply as those who are neither poor nor vulnerable to falling into poverty (in measurement terms, this translates

to less than a 10 percent chance of falling into poverty). A combination of absolute and relative measures is used by Birdsall (2009), who defines the middle class as those with per capita incomes of USD10 a day (in 2005 PPP) up to the 90<sup>th</sup> percentile of the income distribution.

**130. The middle class may also be defined as a set of aspirations.** For example, a study by the US Department of Commerce (2010, p. 1) describes the middle-class families in the US noting they “want economic stability, a home and a secure retirement. They want to protect their children’s health and send them to college. They also want to own cars and take family vacations.” In Malaysia most households own a house, a car as well as basic appliances (Figure 81). Retirement balances are generally low, however, and relative to advanced economies few children of families from the bottom 60 percent attend university. While the aspirational definition reflects a subjective perception of members of each society, partly based on the reference income of their peers, by itself it provides little guidance to arrive at an income cut-off that may be used for policy.

**Figure 81. Most households have access to amenities that would be considered luxuries in other countries**

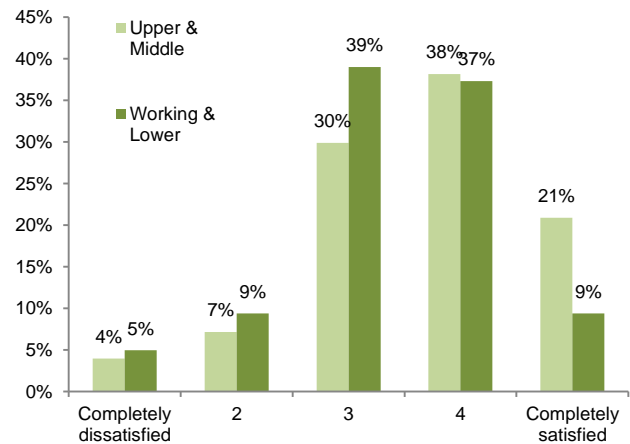
Households with access to the following amenities, percent



Source: HIS 2012, DOSM

**Figure 82. Those who do not regard themselves as middle-class are less satisfied with their finances**

Satisfaction with the financial situation of household and social class, percent



Source: World Values Survey 2011 (N=1,300)

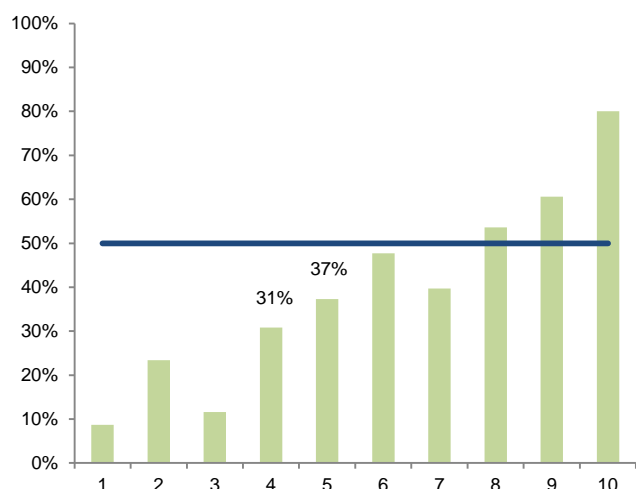
**131. This chapter proposes a definition of the middle class (and above) that includes those households earning more than the mean income.** According to this definition, 33 percent of all Malaysian households with a monthly income of more than RM5,919 in 2014 fall into the middle class or beyond. The motivation for focusing on households below the mean income is two-fold. First, as argued above, the mean income is a reasonable ‘comparison income’ in a given society. It is especially compatible with the upward asymmetry of reference incomes. Second, perception data from surveys suggest the figure is plausible in the Malaysian context and not inconsistent with perceptions of what it means to be middle-class.<sup>41</sup> Figure 79 shows that 41 percent identify themselves as part of the middle class, while Figure 82 confirms that those who do not regard themselves as middle-class are less likely to be satisfied with their finances. Figure 83 shows that only when one gets to the seventh decile of the income distribution more than half of respondents report being middle-class, and among the total number of individuals who reported being in the middle class, more than half were at the top 40 percent of the distribution (Figure 84). One stark (and potentially undesirable) feature of using mean income is that distribution-neutral growth, no matter how rapid, will not increase the size of the middle class. As with vulnerability, the emphasis here is not on the specific measure but its features, namely that it is (i) based on a simple aggregate; and (ii) compatible with society’s own perceptions and beliefs.<sup>42</sup>

<sup>41</sup> For example, in a recent newspaper article (Chi, 2014), Universiti Sains Malaysia (USM) associate professor Dr. Lean Hooi Hooi said the middle class should be defined as individuals or households with RM4,000 to RM20,000 of disposable income every month. Sunway University Economics and Management Department head Dr. Wong Koi Nyen, on the other hand, defined the middle class as semi-professionals and young professionals, based on their earning range per month of about RM5,000 and RM10,000 for families.

<sup>42</sup> Therefore, as income grows further and inequality is reduced, a fraction of average income or a range around median incomes may become closer to perceptions and more appropriate. This suggests that any definitions should be periodically reviewed.

**Figure 83. A majority only of each of the top three deciles considers themselves middle-class.**

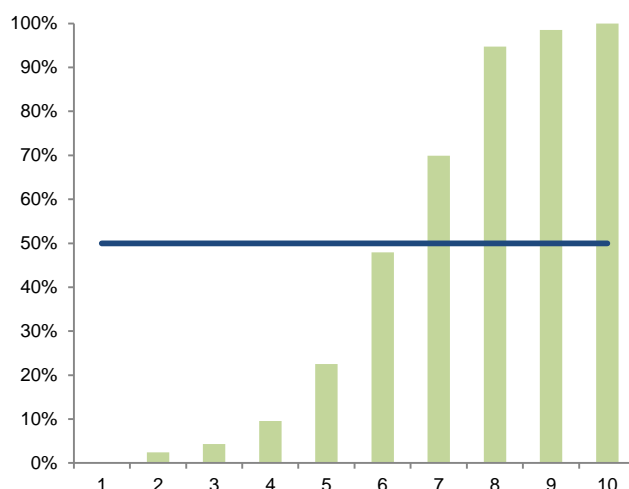
Share within income bracket who consider themselves middle or upper class, by income bracket, percent



Source: World Values Survey 2011 (N=1,300)

**Figure 84. Half of those who consider themselves middle-class are in the top 40 percent.**

Cumulative distribution of those who consider themselves middle or upper class, by income bracket, percent

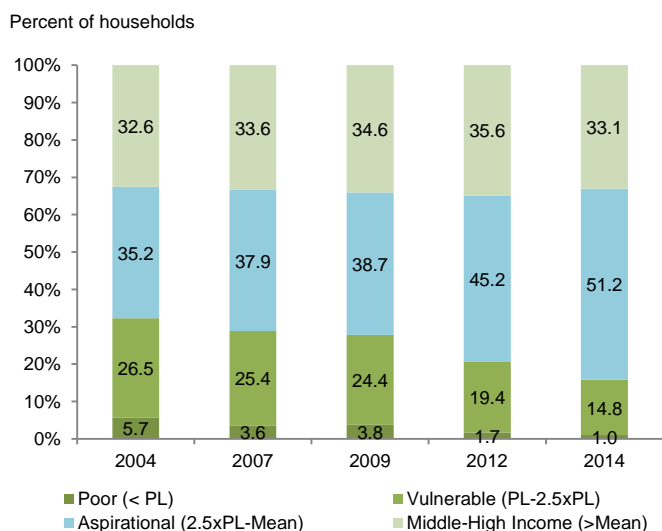


Source: World Values Survey 2011 (N=1,300)

*The aspirational group is the largest in Malaysia*

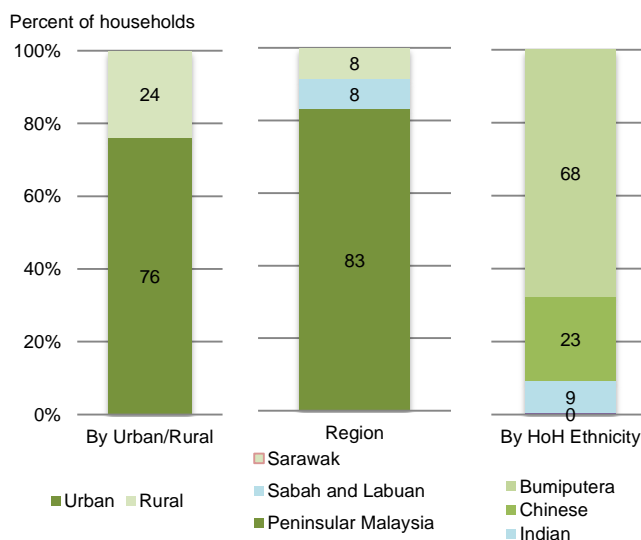
**132. The aspirational group has been growing rapidly and is the largest subset of the population.** Using the definition of households between 2.5 times the poverty line and the average income (2014: RM2,120 – RM5,919 per household per month) as 'aspirational' we find that this group is now the largest in Malaysia. With the exception of Putrajaya, the proportion of the population represented by the aspirational group in each state increased from 2009 to 2012 to at least 50 percent in most states. By 2014 the aspirational group comprised more than half of households in Malaysia (Figure 85) More than 83 percent of the aspirational households live in Peninsular Malaysia, and across all regions, the aspirational class is overwhelmingly urban: more than 75 percent reside in urban areas (Figure 86). With respect to ethnic composition, aspirational households closely reflect Malaysia's national make-up: 2/3s are Bumiputera, about 23 percent are Chinese and 9 percent are Indian.

**Figure 85. The share of the aspirational households is increasing and is now the largest group in society**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

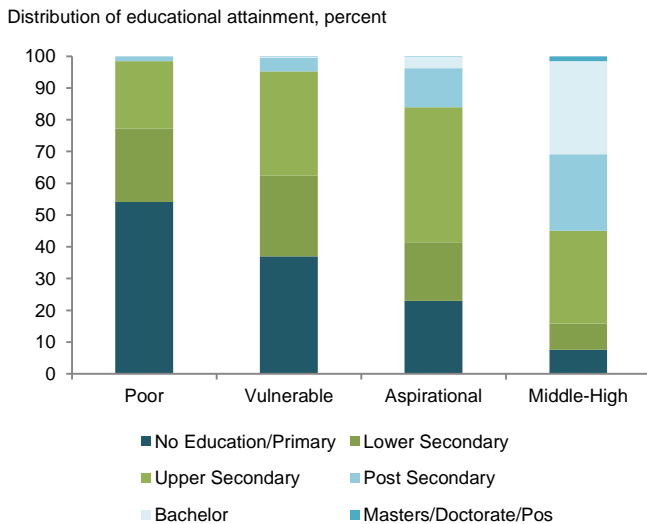
**Figure 86. Most aspirational households live in urban areas in Peninsular Malaysia**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

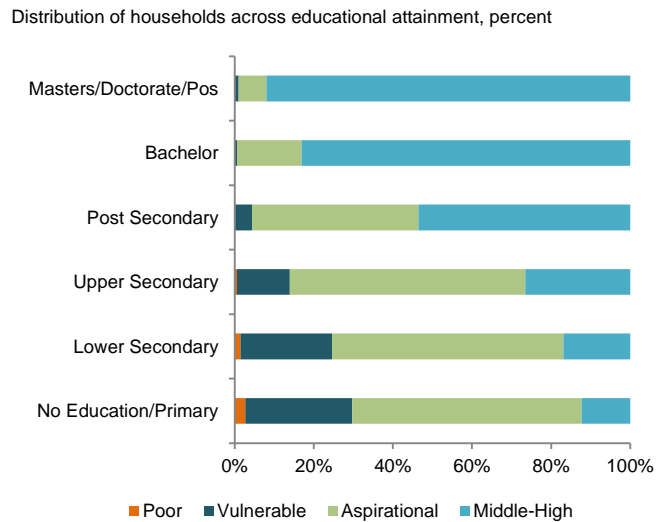
**133. The main distinguishing feature of the middle and upper class from the aspirational group is post-secondary education.** The aspirational group distinguishes itself from the poor and vulnerable by the large share of upper-secondary achievement: 58.6 percent of aspirational households has an upper-secondary education or above compared to 37.7 percent for the vulnerable group (Figure 87). But the difference between the upper- and middle-class and the aspirational group is starker: fifty-five percent of the middle- and upper-class has a post-secondary education (including 29 percent with a bachelor's degree), compared to just 16 percent of the aspirational group (3.7 percent with a bachelor's degree). Looking from the other perspective, 83.5 percent of those households with a bachelor's or post-graduate degree belong to the middle- and upper-class groups (Figure 88). This is strongly suggestive that higher education is a key to the middle class and above.

**Figure 87. Post-secondary education is a key difference between the middle-class and aspirational groups**



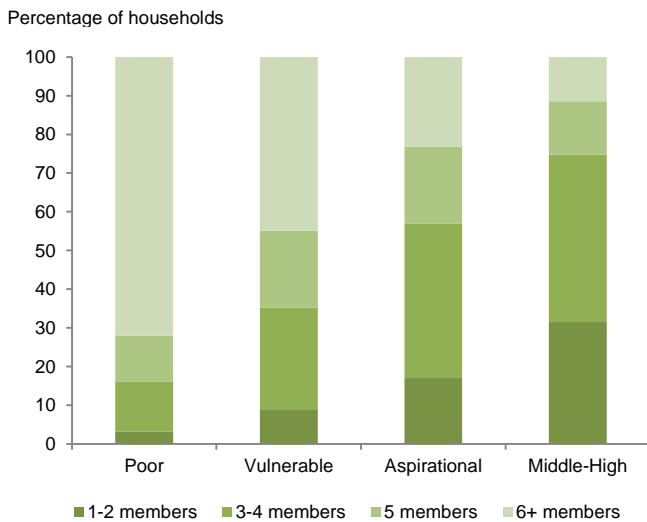
Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 88. 83 percent of those holding a bachelor's or post-graduate degree are in the middle- or upper-class**



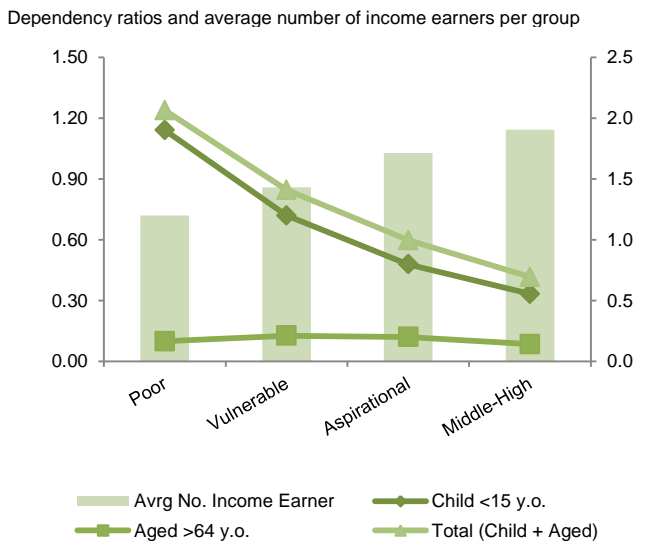
Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 89. Aspirational households are smaller.**



Source: Household Income Survey 2014, DOSM, World Bank staff calculations

**Figure 90. Dependency ratio decreases with income**

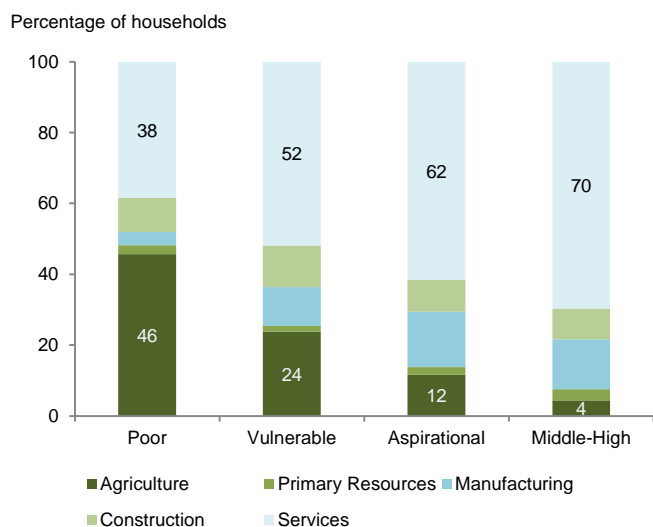


Source: Household Income Survey 2012, DOSM, World Bank staff calculations

**134. Compared to their poor or vulnerable counterparts, aspirational households tend to have more members who are better educated and thus less dependent on each other.** Most aspirational households tend to have three

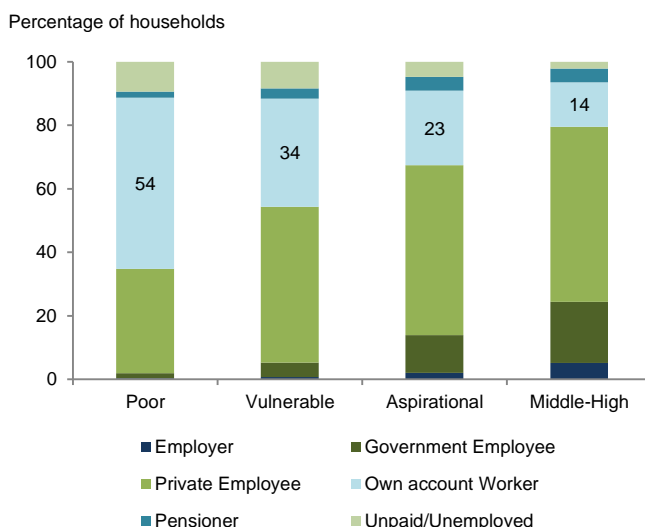
members and above (Figure 89), and have a higher number of income earners on average (1.7, compared to 1.2 among the poor and 1.4 among the vulnerable in 2012; Figure 90).<sup>43</sup> This suggests that in aspirational households, both spouses participate in the labor market.<sup>44</sup> As a result, the overall dependency ratio within aspirational households is 60 percent, much less than that within vulnerable households (85 percent) and half of that in poor households (124 percent). Notably, child-dependency within aspirational households (48 percent) is less than half of that within poor households (114 percent). The higher number of average income earners in aspirational households is likely linked to the fact that they have higher levels of schooling compared to their counterparts in poor and vulnerable households, and are thus better equipped to find jobs.

**Figure 91. Most heads of aspirational households work in the services sector**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 92. Secondary schooling translates into more stable employment opportunities**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**135. Aspirational and middle- and upper-class households tend to work in the same broad sectors, but informality is still relatively high among the former group.** 62 percent of aspirational households work in the service industry (compared to 67 for middle- and upper-class households)<sup>45</sup>, followed by 16 percent in manufacturing (Figure 91). Only a minority (12 percent) work in agriculture, compared to nearly half of poor households and a quarter of vulnerable households. The aspirational group is also more likely to have more formal and secure employment opportunities. 54 percent are led by heads of household who work as private employees, 12 percent are public employees (Figure 92). Compared to poor and vulnerable households, which are almost never led by employers, a small percentage of the aspirational group are entrepreneurs, generating employment for others. Informality, proxied by the number of “own account workers” is lower in the aspirational group compared to the vulnerable group, but still 10 percentage points higher than among the middle- and upper-class groups.

**136. Most aspirational households already show high levels of material asset ownership and access to basic amenities/facilities.**<sup>46</sup> As of 2012, at least 95 percent have good access to treated drinking water, good quality housing with pour or flush toilets, and public primary schools (Figure 93). The only areas where they lag slightly behind middle and upper income groups are health facilities and private secondary schools, but even then nearly 90 percent have decent access to these facilities. Material asset ownership is also high: 78 percent own at least one car,

<sup>43</sup> Data from 2012 as 2014 (preliminary) data not yet available for the variables on individual household members.

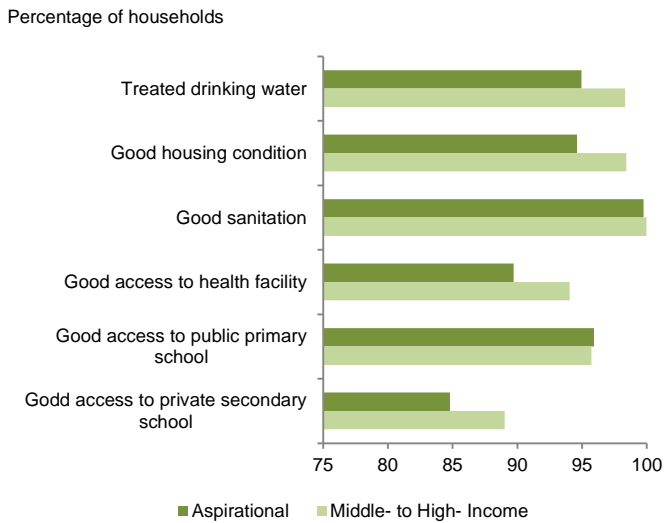
<sup>44</sup> A survey by insurance company AIA in 2014 finds that 22 percent of respondents (self-identified as being middle class) who are currently working full-time said that they would want to become stay-at-home parents, which is one of the highest in ASEAN. This suggests that for many households the participation by both spouses is a necessity to meet certain income levels.

<sup>45</sup> It would be interesting to capture the service sub-sectors as the middle- and upper-class group are likely to be in more modern, higher value-added and knowledge-intensive service sectors compared to the aspirational group.

<sup>46</sup> Data on asset ownership and access to amenities refer to 2012 as 2014 data is not yet available.

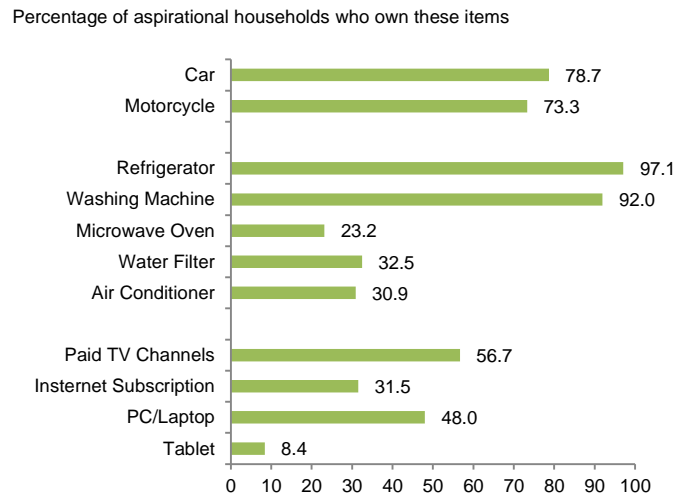
while one in every four owns more than one car (Figure 94). Nearly all households own washing machines and refrigerators, and many own amenities that are not generally owned by poor and vulnerable households, such as water filters and air conditioners. Nearly half have access to more sophisticated information and technology (paid TV channels and fixed line Internet subscriptions).

**Figure 93. Most aspirational households have good access to basic amenities and facilities**



Source: HIS 2012, DOSM, World Bank staff calculations

**Figure 94. Ownership of material assets is high, and access to information/technology is more sophisticated**



Source: HIS 2012, DOSM, World Bank staff calculations

## What will it take for aspirational households to join the middle class?

**137. Raising incomes of the poor, vulnerable, and aspirational groups requires opportunities for these households to increase their income from work and boost income from savings and transfers.** Once the groups have been defined and their characteristics understood, the next step lies in identifying channels to boost their incomes. There are two types of income: that which comes from working and includes both wages and earnings of entrepreneurs; and that which comes from assets (savings for example) and income transfers. The main lever to boost income growth for the aspirational group is to close the gap in post-secondary educational achievement. Moreover, more can be done to level the playing field for low-income groups in entrepreneurship. Finally, there is a role for social insurance schemes that reduce vulnerability and direct state intervention in providing transfers to the neediest households.

## Increasing opportunities for higher incomes from work is the key

### *What can be learned from the drivers of labor shares of income?*

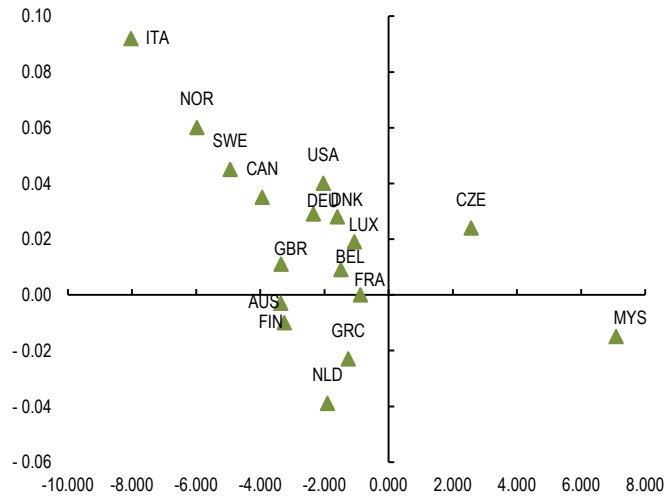
**138. Identifying ways to further increase the share of labor incomes in the economy can be a useful guide to moving households to the middle class and reducing inequality.** Aspirational and vulnerable households depend overwhelmingly on wages and income from self-employment for their household incomes, especially compared to upper classes. In OECD economies, increases in inequality over the previous two decades are correlated with a fall in the labor share of income (Figure 95). In Malaysia, the labor share of income has been increasing (Figure 96), but remains lower than in high-income economies. Therefore, understanding the drivers of the share of labor in national income may be useful to identify ways to move households to the middle class. Indeed, the Government stated that it has a target of wages at forty percent of GDP. But what are the ways to increase the labor share?

**139. First, one must adjust for the income of the self-employed in order to make meaningful cross-country comparisons.** In order to consider the compensation of labor both in the form of wages of employees and earnings of the self-employed, an adjustment needs to be made to figures published in national accounts (see Box 10). Gollin (2002) and Guerriero, (2012) find that there are no clear relationships between labor shares and stages of economic development once income from self-employment is appropriately accounted for. After adjustments, the average

share of labor income in Malaysia (2005-2013) increased from 33.6 percent to 52.7 percent (Figure 97), also with an increasing trend. However, even after adjustments, Malaysia's labor share is still lower when compared to both its peers in the upper-middle income and advanced economies (Figure 98) using the same methodology.

**Figure 95. Changes in the labor share are correlated with changes in inequality**

Change in Gini coefficient for market income (y-axis); change in the aggregate labor share (x-axis)

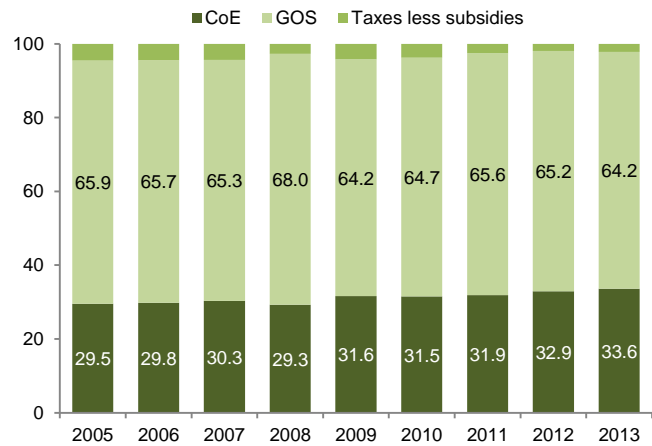


Source: OECD (2012; except Malaysia), DOSM and World Bank staff calculations (Malaysia Gini and labor shares 2007) and Felipe and Sipin (2004; Malaysia labor shares 1995)

Note: Income share changes for Malaysia are for the manufacturing sector only.

**Figure 96. Compensation of employees has been increasing in Malaysia**

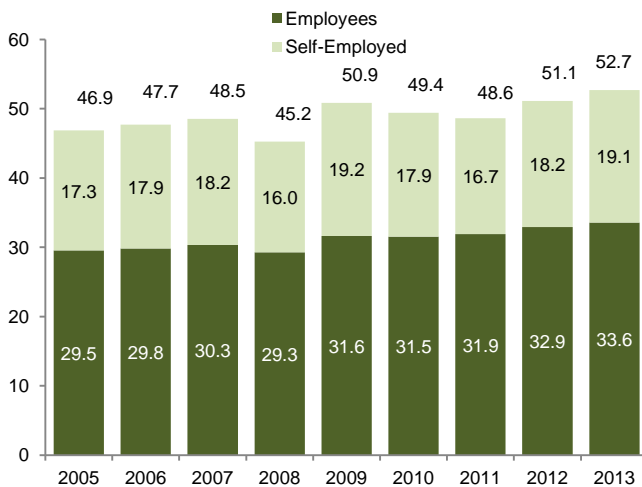
Share (percent)



Source: DOSM. World Bank staff calculations

**Figure 97. Compensation of Employees, adjusting for income of the self-employed is higher...**

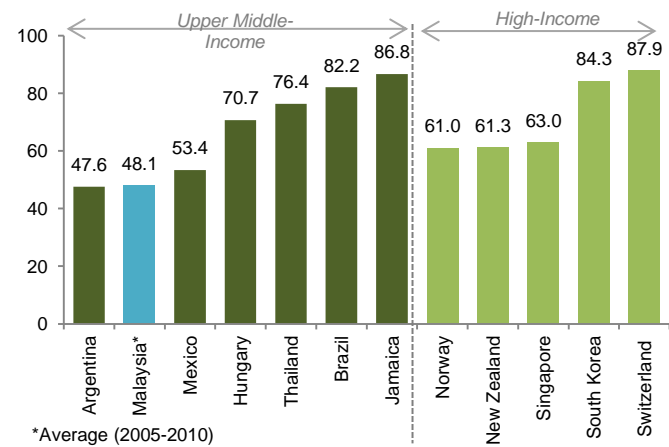
Share, percent



Source: DOSM, World Bank staff calculations

**Figure 98... but remains lower than most high and even middle-income countries**

Average Labor Share (2000s), percent



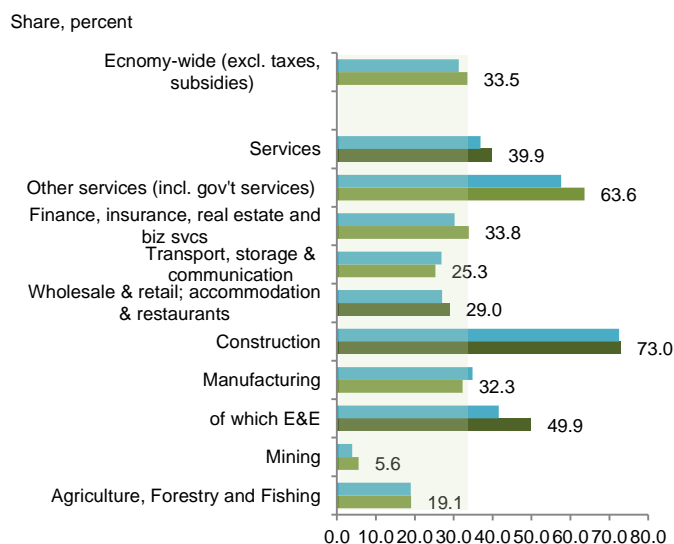
Source: Guerriero (2012); DOSM, World Bank staff calculations

**140. Economic structure plays an important role in determining labor shares – and wages.** Labor shares vary significantly within sectors of the economy and therefore economic structure will be closely linked to labor shares. Figure 99 points to two patterns: first, with some exceptions, the labor share in specific sectors tends to change slowly over time, a reflection of the technology utilized in the sector that implies a specific combination of human and physical capital. Second, services sectors, especially knowledge-intensive services (finance, insurance, real estate, business and other services), tend to have a higher labor share of income. As Malaysia's economy is transformed



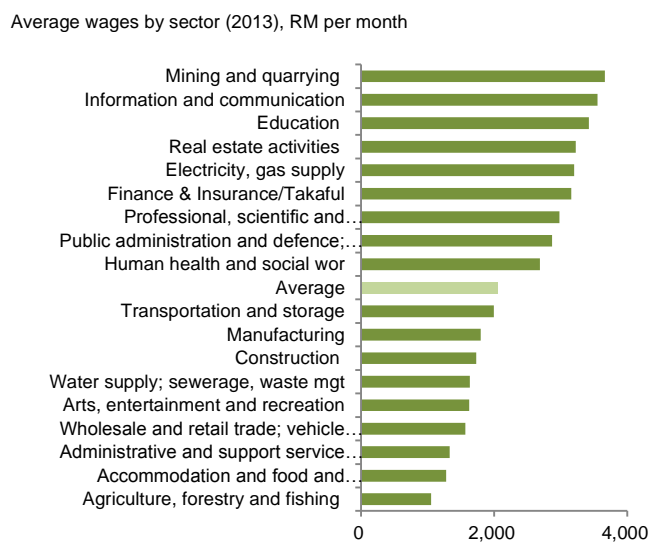
towards a services-driven economy, the trend towards a higher labor share, and sectors that pay higher wages (Figure 100), is likely to continue.

**Figure 99. There are significant differences in labor shares across sectors**



Source: DOSM, World Bank staff calculations

**Figure 100. Knowledge-intensive services pay higher wages and have higher labor shares**



Source: DOSM.

**141. Technological change is often cited as a key factor underpinning the decline in labor share in the advanced economies.** In addition to the shares of income from self-employment and economic structure, which are most likely to affect cross-country comparisons of labor shares, many other factors have been offered to explain the variation of labor shares especially among advanced economies. OECD (2012) argues that productivity growth and capital deepening driven by technological changes explain most of the decline in labor shares between 1990 and 2007. The decrease in the relative price of investment goods, often attributed to advances in information technology and the computer age, induced firms to shift away from labor and toward capital. However, the introduction of more advanced technologies also creates job opportunities for higher skilled workers (Gorg and Strobl, 2005) and translates into higher premiums for education. The OECD (2012) lends support to this hypothesis, finding that 80 percent of the changes in labor share between 1990 and 2007 can be attributed to TFP growth and capital deepening, and that wages have been especially depressed for those with less education. Karabarbounis and Neiman, 2013 suggest that the lower price of investment goods explains half of the decline in labor shares.

**142. Globalization has also been linked to the decline in labor shares as it enabled greater cross-border trade in both goods and services through the fragmentation of supply chains and the integration of global labor markets.** This gave rise to the offshoring of labor intensive tasks from advanced to developing economies and competition from greater trade openness that checked monopolistic actions that imposed mark-ups of prices and profits over wages. Moreover, globalization may have reduced workers' bargaining power. The OECD (2012) also finds globalization to be an important factor through both channels.

**143. Some studies claim a larger role for labor market structures over technological changes and globalization.** OECD (2012) finds limited evidence that collective bargaining has a significant impact on labor shares, and paradoxically argues that higher minimum wages are associated with lower labor shares. There are differing views, however. Stockhammer (2012), while agreeing that technological change and globalization played a role, argues it was not as large as claimed by OECD (2012). Instead, it argues that the larger effects come from financial globalization and retrenchments of the welfare states. It further finds that in countries for which better data is available the decline in the organizational strength of labor unions has an effect of lowering the labor share.

**144. Three potentially useful messages emerge from the discussion of labor shares converging on the need to address educational opportunities and opportunities for entrepreneurship:**

- a. **First, the structural transformation of the economy to knowledge-intensive services can be well aligned with boosting shared prosperity.** Wages, and wage shares, in those sectors tend to be higher. This transformation will require greater relative abundance of human capital to induce firms to invest.
- b. **Second, technological change and globalization amplify the need to emphasize education and training opportunities for the aspirational and vulnerable groups.** While labor market institutions such as stronger collective bargaining could have a role in boosting labor shares, especially considering the low union population of 9.1 percent in Malaysia, the evidence (including that from supporters of a stronger role for labor market institutions) clearly points to the need for policies that help workers keep up with technological change and globalization. The heart of it all lies in the availability of quality education and training opportunities such that the affected workers will continue to stay relevant in a changing economy. An adequate and comprehensive social safety net helps cushion these distributive effects and help reduce the cost of transition for these affected workers.
- c. **Finally, policies need to consider both wages of employees and incomes of the self-employed, which remain a large share of the aspirational group.** This implies on the one hand creating more stable job opportunities and equipping aspirational households with the skills to take up these jobs, as well as improving opportunities for entrepreneurship among the aspirational group.

#### Box 10. Adjusting factor shares of income

Factor shares refer to the distribution of income between the various factors of production, namely households and firms in the production of goods and services. Initially, the distribution of factor shares is assumed to be relatively stable across time. However, the labor share of income, particularly in the advanced economies, has started declining since the 1980s. Since this coincided with increasing trade openness and the advent of information and computing technology, some parties have used this decline to highlight the repercussions of a more integrated global economy. More recently, the increasing concerns on economic inequality has further drawn spotlight on the link between factor shares and society's perception of equity (Atkinson, 2009).

However, policy discussions on factor shares are made complicated due to measurement challenges. It is common practice to use compensation of employees (CoE) as a measure of labor income. However, the CoE omits income derived from those who are not employees (i.e. self-employed or income from unincorporated business). This could potentially underestimate the share of labor income, particularly if self-employment forms a sizable portion of the total workforce. Given the recent attention surrounding the level and direction of the labor income, this omission can lead to inaccurate policy conclusions particularly when cross-country comparisons are involved.

The Department of Statistics Malaysia recently published the Gross Domestic Product by Income Approach in current prices from 2005 to 2013. The three published components are: (i) Compensation of Employees (CoE); (ii) Gross Operating Surplus (GOS) and; (iii) Taxes less subsidies on production and imports. Since 2005, GOS is the largest component in the factor production, though with a decreasing share over time (Figure 96). However, since approximately 22 percent of Malaysia's total workforce comprises of those who are self-employed, it reasonable to conclude that the CoE published understates the labor share of income in Malaysia.

Thus to correct for this shortcoming, this article adopts the methodology proposed by (Guerriero, 2012), a further refinement of the one proposed by (Gollin, 2002). By assuming similar wage rates between employees and the self-employed, it leverages available data on the composition of the economy's workforce, by scaling up the average employee compensation by the total workforce less employers. More specifically:

$$\text{Adjusted Labor Share} = \frac{\left( \frac{\text{CoE}}{\text{No. of Employees}} \right) \times (\text{Total Employment} - \text{No. of Employers})}{\text{GDP} - \text{Taxes less subsidies} - \text{Consumption of Fixed Capital}}$$

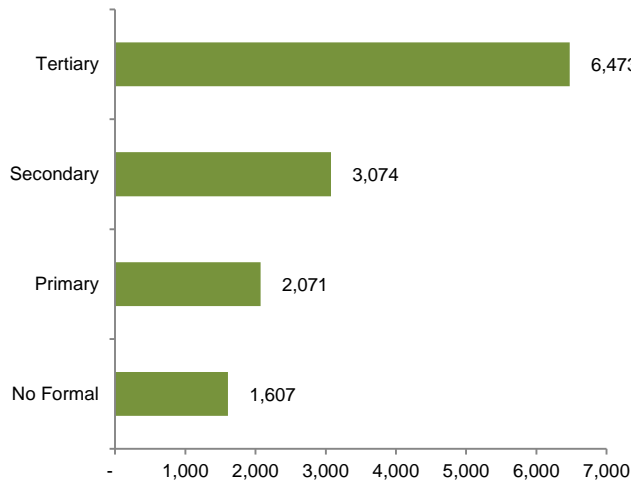
Source: Authors

*Skills achievements gaps constrain earnings growth of the aspirational group*

**145. Raising incomes of the aspirational group requires equipping them with skills that will command higher wages in the labor markets.** The previous discussion suggested that a key tool to increase wages and the labor share of income in Malaysia is through improving education opportunities. Figure 87 showed that 55 percent of the middle- and upper-class have more than a secondary education. Figure 101 and Figure 102 below shows that higher levels of education are indeed associated with wages that are compatible with joining the middle class, while lower levels are not. This section considers the drivers of inequalities in educational attainment that are closely linked with household's incomes and difficulty with moving to the middle class.

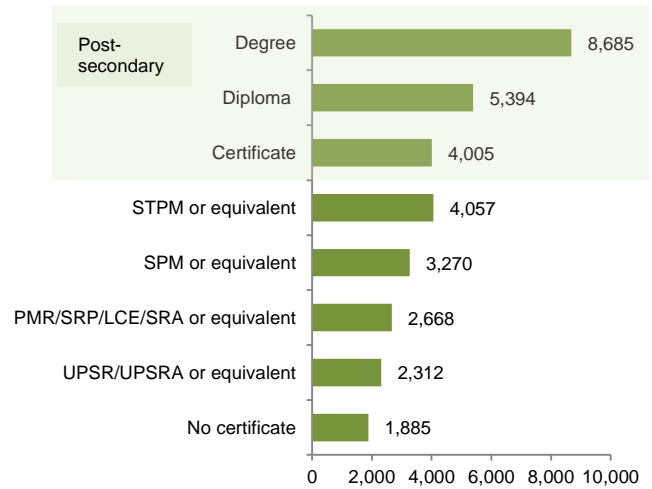
**Figure 101. Tertiary-educated workers command middle-class wages**

Monthly average wage incomes of 1.9 earners by education level (2013)



**Figure 102. Wages of degree holders place them well into the middle-class**

Monthly average wage incomes of 1.9 earners by highest certificate (2013)

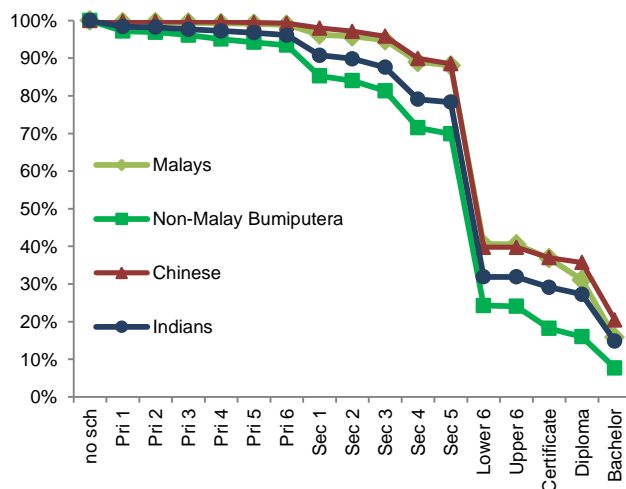


Source: HIS 2012 and Salaries & Wages Survey, DOSM and World Bank staff calculations

Note: 1.9 is the average number of wage earners for middle- and upper-class households in 2012

**Figure 103. Educational attainment varies less by ethnicity...**

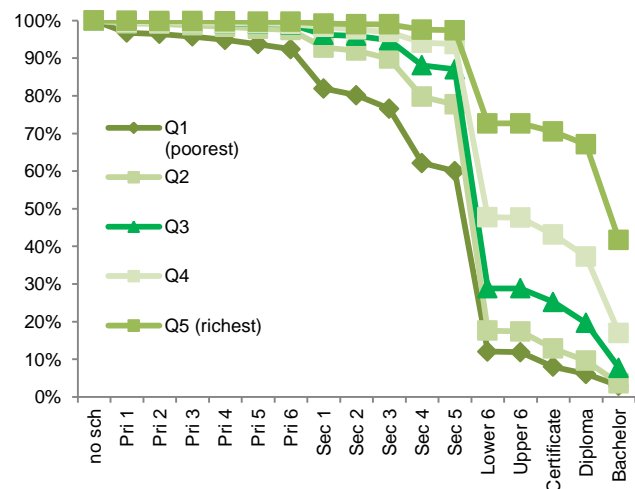
Educational Attainment among education completers 25-29 years old in Malaysia, 2012, by ethnicity, percent



Source: HIS 2012, DOSM and World Bank staff calculations

**Figure 104. ... than by socioeconomic status – especially at post-secondary levels**

Educational Attainment among education completers 25-29 years old in Malaysia, 2012, by socio-economic status, percent



Source: HIS 2012, DOSM and World Bank staff calculations

**146. Inequalities in educational attainment are primarily driven by income characteristics of households.** Figure 103 and Figure 104 show the educational attainment profiles for 25-29 year-old Malaysians. The educational attainment of Malays and Chinese is comparable, while attainment of non-Malay Bumiputeras lag somewhat starting in

secondary education (Figure 103). Socio-economic differences are by far the most pronounced. These gaps are simply the vertical distances between the line graphs for the four lower quintiles to the top quintile at the schooling levels of interest. While most young adults have received education at least through Form 5, non-completers are concentrated among the poorest 20 percent of the population (Figure 104). The attainment gap between the wealthiest group and the rest jumps further at post-secondary levels (lower Form 6 and above): while 40 percent of young adults from the top quintile have earned a Bachelor's degree, just over 5 percent of their peers from the bottom 60 percent (most of whom are in the aspirational group) have.

**Table 10. Wealth-related gaps in educational attainment among 25-29 year old education completers, 2012**

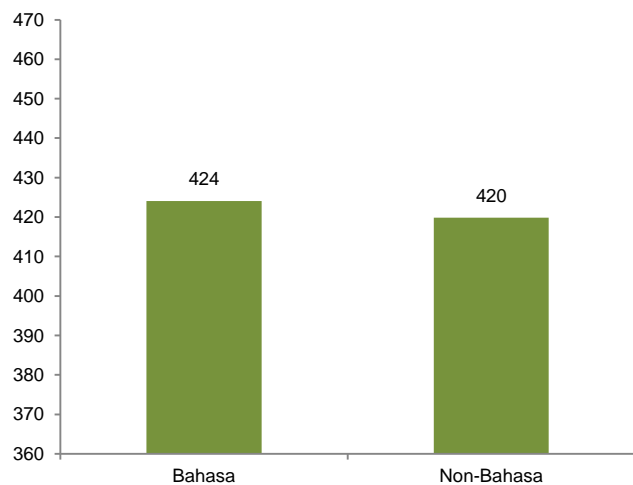
Percent	Complete primary	Enroll in secondary	Complete SPM	Enroll in post-SPM	Complete bachelor
Q1-Q5	-7.3	-17.3	-37.4	-60.6	-38.8
Q2-Q5	-2.2	-6.4	-19.7	-55.1	-38.1
Q3-Q5	-0.7	-3.0	-10.4	-43.8	-34.0
Q4-Q5	-0.6	-0.9	-3.6	-24.9	-24.7

Source: Lathapipat (2013) based on HIS 2012, DOSM

**147. Inequality in educational attainment is driven by higher attainment among the top 20 percent, with attainment among the bottom 60 percent fairly equal.** The attainment gaps between the first four wealth groups (Quintiles 1, 2, 3, and 4) to the wealthiest group (Quintile 5) at five key education levels (primary completion, secondary enrolment, secondary completion, post-secondary enrolment, and college completion) are presented in Table 10. These gaps are simply the vertical distances between the line graphs for the four lower quintiles to the top quintile at the schooling levels of interest. Table 10 suggests that those in the top 20 percent are 44-55 percent more likely to reach post-SPM education compared to those aspirational households in the Q2 and Q3.

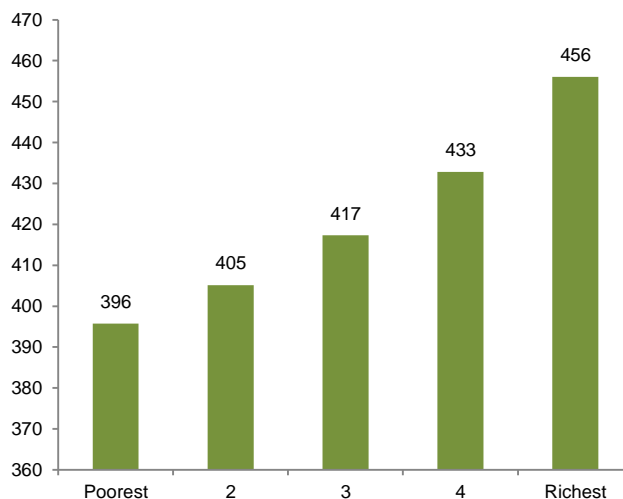
**Figure 105. Speakers of Bahasa Malaysia perform slightly better than non-Bahasa speakers**

Average PISA scores in science and mathematics, controlling for student characteristics, by language spoken at home, points



**Figure 106. Students in the top quintile perform significantly better than those in the bottom 60 percent**

Average PISA scores in science and mathematics, controlling for student characteristics, by income quintile, points



Source: OECD PISA 2012, World Bank staff calculations

Note: Language spoken at home inferred from students whose test language was Bahasa Malaysia, and who speak the language of the test at home.

**148. Inequalities in educational outcomes are also primarily driven by socio-economic status.** Figure 105 compares the predicted scores in science and mathematics of students who speak Bahasa Malaysia at home and those of students who speak other languages, controlling for a number of factors that are known to affect test scores such as socio-economic background of the students (income, whether they attended pre-school), parents education and school characteristics (location, size, resources, number of teachers with certificates). It shows that Malay speakers

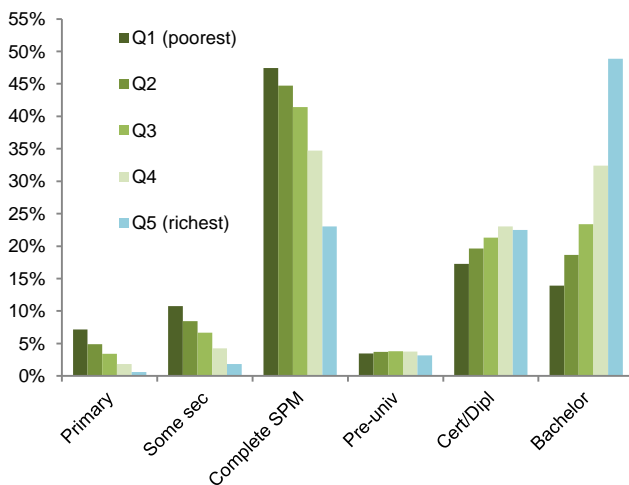
score 4.2 points higher than non-Malay speakers.<sup>47</sup> On the other hand, Figure 106 performs a similar exercise comparing across income groups (again, controlling for all other factors known to influence scores, except income). The difference between a student in the second and third quintile (all of whom would be in the aspirational group) and a student in the top quintile (who would be in the middle- or upper-classes) is 45 points or more than 10 times the difference by language.

**149. In addition to socioeconomic status, preschool attendance and family structure are also strong determinants of learning outcomes in Malaysia.** Holding other things equal, a reduction in the economic, social and cultural status index of two standard deviations from the sample mean reduced the maximum obtainable PISA score in math and science by 5 percent, while an increase of two standard deviations increased scores by 6 percent. Preschool attendance was associated with a 5 percent increase in scores. Finally, family structure mattered for performance: the maximum attainable score was 6 percentage points higher among students living with two parents compared to those living without parents.

**150. Understanding the cause of the gaps in enrolments in post-secondary education is critical to the correct policy response.** We turn to a more rigorous analysis of the gaps in post-secondary education, which as has been argued earlier is critical to lift the aspirational group to the middle class. Lathapipat (2013) investigates the schooling attainment distribution of individuals in different family wealth quintiles. The study follows King and Lillard (1987) in its ordered probit approach and Lathapipat (2013) for extending the model to analyze education inequality by wealth group. Following the approach taken by Carneiro and Heckman (2002), Cameron and Heckman (1998, 1999, 2001), and Belley and Lochner (2007), the analysis tests the importance of “short-run” family wealth relative to “long-run” family background and environmental characteristics (e.g. differences in educational attainments of parents, household size and location) that are perceived to be important in shaping cognitive and non-cognitive abilities during a child’s formative years. The rationale is that “short-run” family wealth is essentially a “liquidity constraint” that can be readily addressed by government intervention (tuition assistance, educational loans, etc.), while “long-run” family and environmental factors are correlated with their household income, but are not easily influenced by short-run interventions.

**Figure 107. Significant disparities in educational attainment remain...**

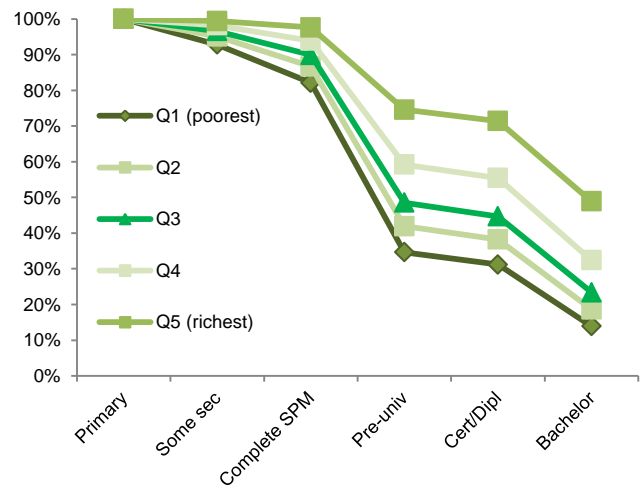
Estimated final schooling attainment distributions for 19–25 year-old Malaysians (2012 Cohort) – Unadjusted, percent



Source: Lathapipat (2013) based on HIS 2012, DOSM

**Figure 108. ... even after adjusting for household wealth**

Estimated final schooling attainment distributions for 19–25 year-old Malaysians by family wealth quintile (2012 Cohort) – Unadjusted, percent



Source: Lathapipat (2013) based on HIS 2012, DOSM

<sup>47</sup> The PISA dataset does not have information on the ethnicity of students but it provides information whether the language spoken at home is the language of the test, and on the language of the test, which was available in Bahasa Malaysia and English. Therefore it is possible to infer whether students speak Bahasa Malaysia, English, or other languages at home.

**151. Socioeconomic differences in educational attainment persist even after family wealth is accounted for.** As a first step, the analysis uses a censored ordered probit model to estimate the (discrete) probability distribution of final schooling attainment outcomes for 18-24 year-olds in the 2012 cohort (Figure 107). This model includes the background factors of age and sex (which cannot be changed in the short- or long-run), and family wealth quintile (which could be changed in the short-run by government intervention) as regressors. As Figure 108 shows, after controlling for these short-run factors in this “unadjusted” model, there still remains considerable socioeconomic inequality in predicted educational attainments. The estimated “unadjusted” wealth-related educational attainment gaps at various schooling levels are presented in Table 11.

**Table 11. Estimated wealth-related gaps in educational attainment for 19-25 year olds, adjusted for short term factors**

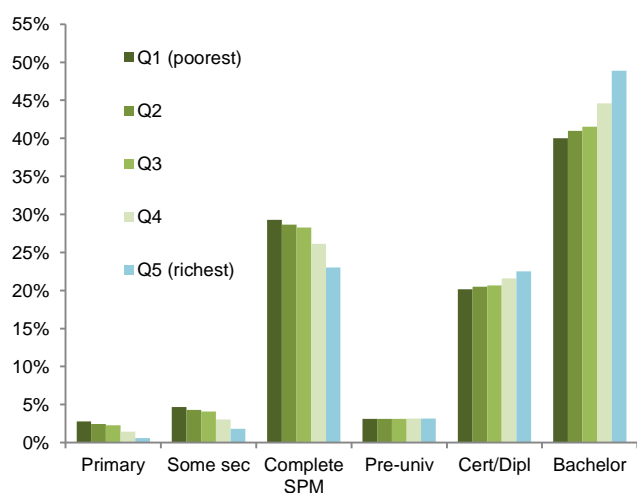
Percent	Enroll in secondary	Complete SPM	Enroll in pre-university	Complete bachelor
Q1-Q5	-6.6	-15.5	-39.9	-35.0
Q2-Q5	-4.3	-10.9	-32.6	-30.3
Q3-Q5	-2.8	-7.7	-26.1	-25.5
Q4-Q5	-1.2	-3.7	-15.4	-16.5

Source: Lathapipat (2013)

**152. Inequality is considerably diminished when long-term background factors are controlled for.** As a second step in this analysis, another “adjusted” model is run which controls for a detailed set of so-called long term background factors in addition to the short term ones adjusted for in the first model. Figure 109 and Figure 110 displays the predicted educational attainments after adjusting for both short and long run background factors. It is immediately obvious that inclusion of these long-run background variables considerably reduces inequality by socioeconomic status. The estimated educational attainment gaps in the “adjusted” model at various schooling levels are presented in Table 12. The largest reduction in attainment inequality between the wealthiest group and the rest is observed at entry into post-secondary levels.

**Figure 109. Over 40 percent of the bottom 60 percent would earn a Bachelor’s degree...**

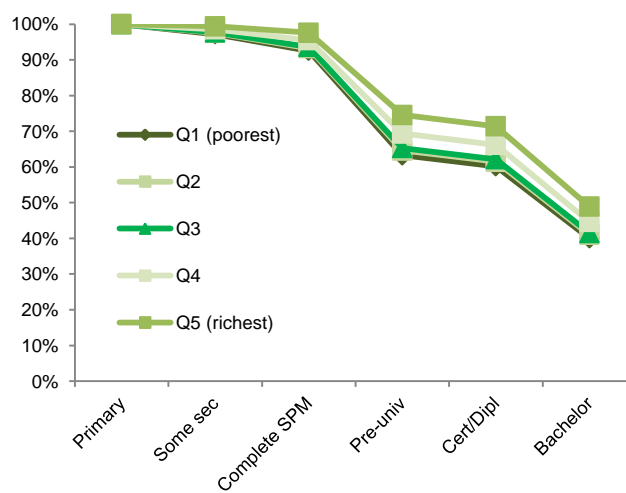
Estimated final schooling attainment distributions for 19–25 year-old Malaysians (2012 Cohort), percent



Source: Lathapipat (2013) based on HIS 2012, DOSM

**Figure 110. ... if all background factors could be equalized across income groups**

Estimated final schooling attainment distributions for 19-25 year-olds by family wealth quintile (2012 Cohort) – Adjusted for long-term factors, percent



Source: Lathapipat (2013) based on HIS 2012, DOSM

**153. Educational attainments of both parents have the largest impact on children’s schooling outcomes.** The long-term background factors included in the “adjusted” model are differences in educational attainments of parents, household size, household occupational status, ethnic background, state and area of abode, and distances of living quarter from the nearest government primary and secondary schools. International evidence suggests these are related to unobserved factors such as preschool attendance, the quality of early education received, and home environments conducive to learning, each of which is a long-run investment whose effect is typically reflected in and

measurable by standardized test scores. These long-run family and environmental factors are perceived to be important in shaping cognitive and non-cognitive abilities of individuals, are correlated with household income, and arguably are not easily influenced by "short-run" government interventions. Among these factors, Table 13 shows that none is more important than parental education. The importance of household wealth is still significant especially between individuals in the two wealthiest groups and the remaining lower quintile groups, although a lack of cognitive ability data probably overstates its effect.<sup>48</sup>

**Table 12. Estimated wealth-related gaps in educational attainment for 19-25 year olds, adjusted for differences in long-run factors**

Percent	Enroll in secondary	Complete SPM	Enroll in pre-university	Complete bachelor
Q1-Q5	-2.2	-5.1	-11.3	-8.9
Q2-Q5	-1.9	-4.3	-10.0	-7.9
Q3-Q5	-1.7	-4.0	-9.3	-7.4
Q4-Q5	-0.9	-2.1	-5.2	-4.3

Source: Lathapipat (2013) based on HIS 2012, DOSM

**Table 13. Selected ordered Probit coefficients**

Variable	"Unadjusted" Model	"Adjusted" Model
Household Per Capita Income Quintile: (1st Quintile)		
2 <sup>nd</sup> Quintile	0.196***	0.041
3 <sup>rd</sup> Quintile	0.365***	0.062**
4 <sup>th</sup> Quintile	0.641***	0.184***
5 <sup>th</sup> Quintile	1.078***	0.340***
Father's Highest Educational Attainment: (No formal schooling)		
Some secondary		0.274***
Pre-university		0.731***
Bachelor or higher		0.939***
Mother's Highest Educational Attainment: (No formal schooling)		
Some secondary		0.247***
Pre-university		0.939***
Bachelor or higher		0.980***
Urban		0.091***

Source: Lathapipat (2013) based on HIS 2012, DOSM

Note: \*\*\* p<0.01, \*\* p<0.05

### *Improving entrepreneurship opportunities*

**154. Entrepreneurship may be another avenue through which people ascend to the middle class.** While the positive links between entrepreneurship and economic growth are well documented (Schumpeter 1942, Carree and Thurik 2002, Acs 2006), the relationship between entrepreneurship and socioeconomic mobility is more controversial. Quadrini (2000) and Gentry and Hubbard (2004) find that entrepreneurs generate a higher concentration of wealth compared to those who are employees. On the other hand, Banerjee and Duflo (2011) find that the businesses operated by the poor and vulnerable are largely small, unprofitable and do not generate employment for others, and are thus "unlikely to pave the way for mass exit from poverty." Solimano (2012) notes that entrepreneurial

<sup>48</sup> One important consideration is that in addition to long-run family factors, Carneiro and Heckman (2002), Cameron and Heckman (1998, 1999, 2001), and Belley and Lochner (2007) also directly control for cognitive ability using standardized test scores in their regression models. These studies on gaps in college attendance and/or high school completion of youths from different family income backgrounds find that the role of family income is greatly diminished once long-run family factors and scholastic ability are controlled for. Without comparable measures of cognitive ability in Malaysia, it is possible to control only for observable long-run family factors but not for potentially important unobservable factors such as preschool attendance, the quality of early education received, and home environments conducive to learning. These factors are better captured in standardized test scores. As a result, the role of family wealth in educational attainment is likely to be overstated in this analysis.

outcomes can vary widely, noting that “the distribution of payoffs for an entrepreneur may have a larger mean, but also greater variance” (p. 40). In other words, while entrepreneurship may bring greater rewards to upward income mobility compared to employment, it is a risky endeavor that may not necessarily succeed.

**155. Leveling the playing field for the aspirational group to start and grow successful businesses can be beneficial in enhancing shared prosperity.** In theory, entrepreneurship – defined as operating a formally-registered business for financial profit<sup>49</sup> – provides an opportunity for individuals to increase their incomes. The varying entrepreneurial outcomes that emerge are a function of the differences in entrepreneurial capabilities of individuals to create a thriving business, as well as broader ‘ecosystem’ factors, such as access to finance, markets, human capital and regulatory conditions, many of which are different for different social groups. In Malaysia, where a high proportion of businesses are owned and controlled by families (Claessens et al, 2000; Abdul Rahman, 2006), early exposure to entrepreneurship may also influence entrepreneurial success. Given the differences in wealth, schooling and potentially exposure to entrepreneurship, how easy is it for aspirational individuals to start and grow a successful business, compared to the middle and upper classes?

**156. The proportion of (formal) entrepreneurs in the aspirational class remains relatively low.** While 5.2 percent of the heads of middle-class households are employers, only 2.1 percent of aspirational households and a negligible proportion of the poor and vulnerable fall into this category. As mentioned earlier, levels of informality are significant<sup>50</sup>: own-account workers – many of whom operate microenterprises – make up nearly a quarter of the aspirational group, a third of the vulnerable and over half of the poor. As in many other countries, there is high informality among female-owned microenterprises: 81.7 percent of women working in the informal sector are own-account workers, compared to 59.6 percent of men. These levels of informality persist despite the fact that registering a business is relatively easy in Malaysia<sup>51</sup>, which ranks third among 189 economies in this category (World Bank 2014d). Despite the government’s efforts to establish one-stop shops, provide online services and reduce registration fees, there are clearly still incentives to remain informal, or few perceived benefits to formalizing.

**157. Credit constraints and a lack of collateral may still impede business entry and growth among lower income groups.** International evidence suggests that the distribution of incomes, assets and wealth can impede entrepreneurship in two ways. First, the probability of becoming an entrepreneur may increase with individual wealth (Aghion et al, 1999; Banerjee and Duflo, 2000). Second, liquidity constraints may influence the ease of financing and thus affect business performance (Cagetti and De Nardi, 2006). While data on the distribution of credit to entrepreneurs or potential entrepreneurs by income group is not available in Malaysia, both of these cases may be true in Malaysia considering the low value of financial assets owned by other classes, and their lack of collateral relative to the middle-upper classes (see discussion on p. 74). There also appears to be uneven access to funding at the firm level<sup>52</sup>; in 2011, small firms were four times less likely to obtain financing from commercial banks than medium-sized firms (Figure 111), relatively unchanged from 2005. Nonetheless, this is true in many countries, and the plethora of government efforts to improve access to finance for entrepreneurs in recent years suggests that this is a priority area. The deeper question is to assess if these interventions have managed to level the playing field for less well-off entrepreneurs.

**158. Exposure to business training may influence entrepreneurial propensity and performance.** The lack of knowledge on how to identify opportunities to start a business, or of the skills required to successfully manage one, may influence one’s confidence in becoming an entrepreneur. As Figure 112 shows, the proportion of Malaysians who think that they have the skills, knowledge and experience to start and run a new business is relatively low (28 percent),

---

<sup>49</sup>This definition does not consider own-account workers who do not hire others as entrepreneurs. While many of those who fall into this category may be operating microenterprises, these ventures tend to remain small, informal and are unlikely to produce the financial returns that can promote upward social mobility on their own.

<sup>50</sup> Accurate estimates of the informal sector’s contribution to the economy are difficult to come by due to differences in measurement. DOS (2009) estimates that the informal sector accounted for 10.7 percent of GDP in 2005, while Schneider (2002) puts this figure at 29.6 percent in 2007.

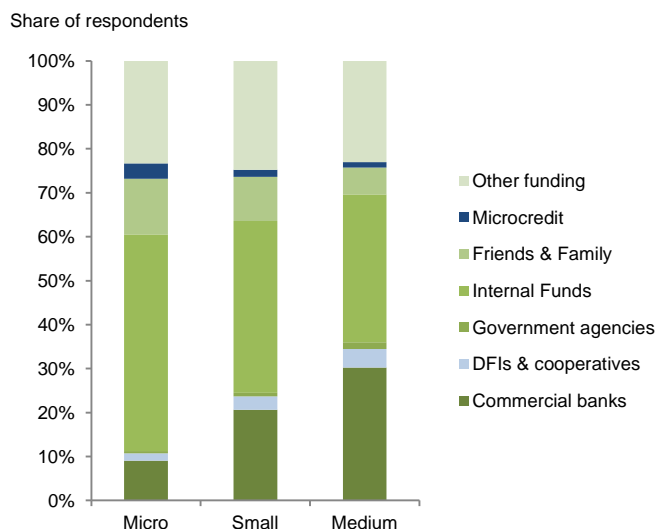
<sup>51</sup> Starting a formal business in Malaysia requires 3 procedures, takes 5.5 days, costs 7.2 percent of income per capita and does not require any paid-in minimum capital.

<sup>52</sup> For simplicity, it is assumed that firm size and household wealth are positively correlated; that is, wealthier households tend to own medium-sized and larger businesses, while firms owned by poor/vulnerable/aspirational households are micro or small.



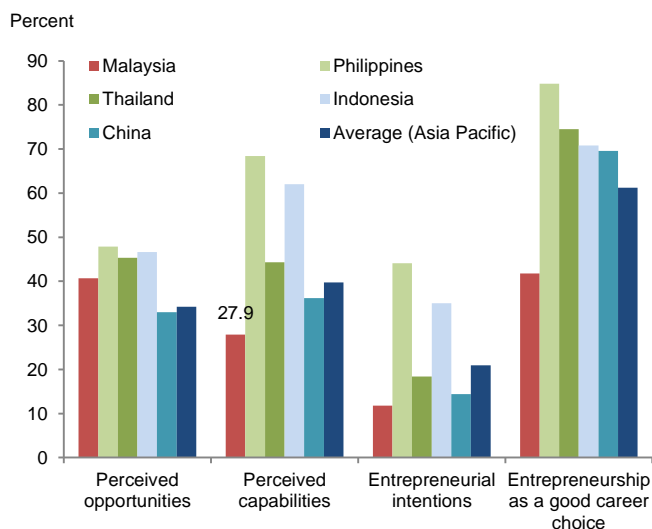
compared to the regional average (40 percent). Entrepreneurship training, whether through formal education or otherwise, may help to increase this proportion. De Mel, McKenzie and Woodruff (2012) find that such training has a higher impact on potential entrepreneurs, who have higher profits and better management practices even two years after completing the course. If properly targeted and administered, business training may also help entrepreneurs to improve management practices and solve strategic challenges – for example, by learning how to manage non-family employees (de Mel et al, 2012) or by improving sales in bad weeks or months (Karlán and Valdivia, 2011).

**Figure 111. Microenterprises are four times less likely to obtain funding from commercial banks**



Source: Economic Census of SMEs, DOSM 2011  
 Note: Other funding refers to supplier creditors, co-operatives, hire purchase/leasing/credit companies

**Figure 112. Only a third of Malaysians think that they have the capabilities to start a new business**



Source: Global Entrepreneurship Monitor (Amoros & Bosma, 2013)  
 Note: Based on 2,000 face-to-face interviews

**159. More fundamentally, higher levels of formal education can improve entrepreneurial performance.** In their meta-analysis of 94 studies, Van der Sluis, Praag and Vijverberg (2004) find a significant and positive relationship between schooling and entrepreneurial performance, particularly in the United States. Although there is considerable debate on whether entrepreneurial skills can be taught in formal education systems, it is plausible that deficiencies in numeracy, literacy, creative thinking and problem-solving skills could prohibit entrepreneurs from successfully managing their businesses. Formal education also provides the basis for absorbing and applying the information learned in a business training program, or to comprehend more complex business strategies (Kolstad and Wiig, 2014).

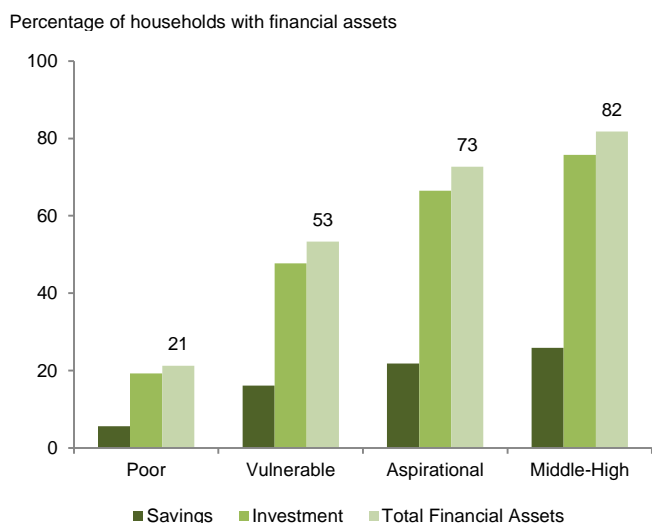
**160. There appears to be room for improvement in entrepreneurship education and training in Malaysia.** While the Government has included entrepreneurship studies as part of tertiary-level education, preliminary evidence suggests that these programs have not had the desired effects. A study of polytechnic institutions indicated that instructors do not appear to have the relevant entrepreneurial skills, knowledge or training to lead entrepreneurship programs in universities (Nasrudin and Othman, 2012), nor are the entrepreneurship curricula effective (Ismail, 2013). If these programs are to equip lower-income students with the relevant entrepreneurial skills and exposure to compete equally with their wealthier counterparts, a more thorough assessment and reformulation of such programs is needed.

### Expanding non-labor incomes can also play a useful role

*Savings currently provide limited protection, especially in the context of old age*

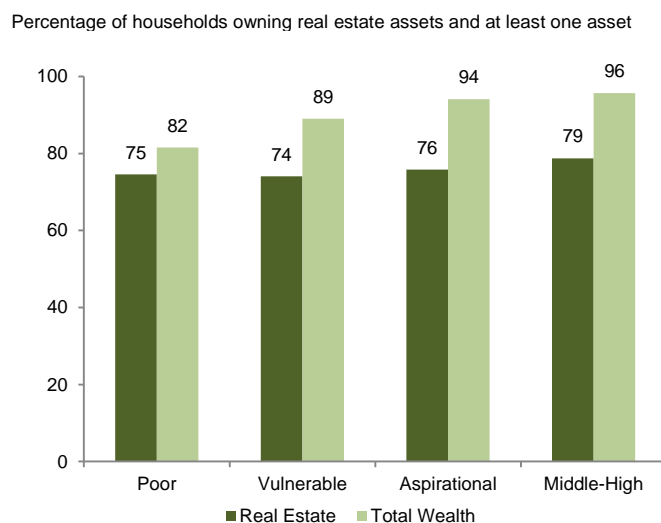
**161. Remaining a middle-class household into old age requires households to have sufficient savings and other assets to provide them with continued income once they exit the labor market.** If aspirational households are to join the middle class – and remain there into retirement – they will need to build up savings. This can be through the formal retirement schemes such as the Employee’s Provident Fund (EPF) and the Civil Service retirement scheme, as well as other savings and financial and real investments.

**Figure 113. Most aspirational households have financial assets**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

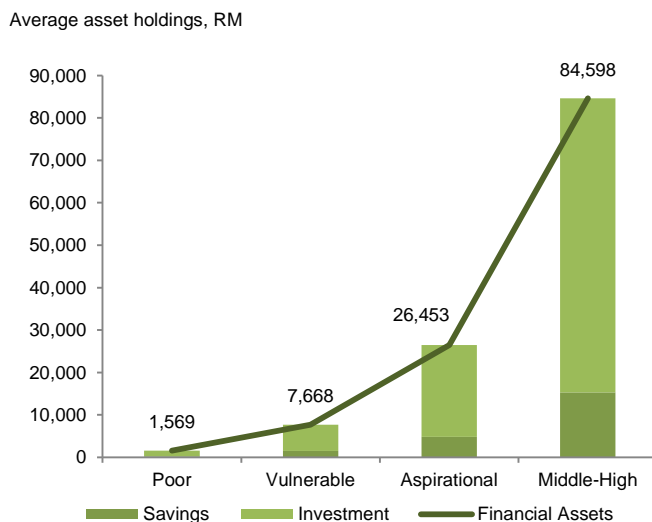
**Figure 114. Home ownership is high, and households across income groups own real estate wealth**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

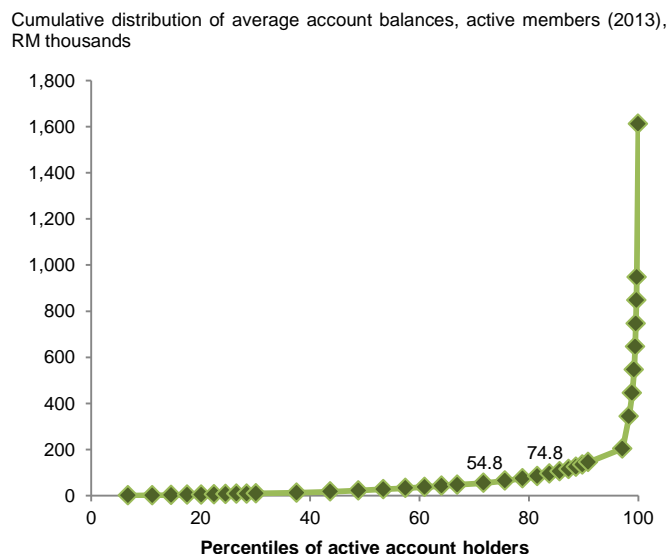
**162. Most aspirational households have assets, both financial and real.** Nearly 73 percent of aspirational households already have some form of financial asset, compared to 81 percent for middle- and high-income households (Figure 113).<sup>53</sup> Notably, about 66 percent already have investments although only 21 percent have savings (or rather, report receiving income from savings). Given high rates of home ownership in Malaysia, most (over 75 percent) of households, including those in the aspirational group, own real estate assets (Figure 114).

**Figure 115. Aspirational households have more assets than vulnerable households, but balances are low**



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 116. Over 80 percent of EPF members have less than RM75,000 in savings**



Source: EPF Annual Report (2013), World Bank staff calculations

<sup>53</sup> Financial assets are an estimate based on dividing the asset income flows reported in the Household Income Survey by average rates of return, namely 2 percent for savings, 6 percent for investments, 4 percent for urban real estate and 3 percent for rural real estate. We thank Muhammed Abdul Khalid for suggesting this approach.

**163. However, estimated balances on financial assets are low.** Aspirational households are estimated to have an average of RM26,458 in financial assets (Figure 115). While the value of real estate holdings (RM108,423) provides a cushion, these balances would need to be significantly expanded for households to have a comfortable retirement. Balances on the Employee Provident Fund (EPF) are similarly low, with over 70 percent of contributors having savings of less than RM55,000 (Figure 116). It is important on the one hand to note that EPF contributors are skewed to the upper-half of the income distribution<sup>54</sup>. However, EPF members are also young on average. In 2015, 233,299 workers (or 3.6 percent of EPF contributors in 2013) will turn 55. However, among those 69 percent will have less than RM50,000 in their EPF as savings while 12 percent would collect RM50,000-RM100,000, 11 percent RM101,000-200,000 and only 8 percent would have more than RM200,000 to retire on.<sup>55</sup>

**164. Coverage of old age savings and pensions could be more extensive, and among those covered, accumulations are low.** At around 57 percent of the labor force and just under 40 percent of the working age population in 2013, coverage is relatively low and is of particular concern considering the rapid pace of aging in Malaysia. Own-account workers, for whom the rates of poverty and vulnerability are higher and which comprise a significant share of the aspirational class, form a large proportion of those not covered. Given a low balance of RM 50,000 at retirement, the estimated replacement rate would be only between 9 to 16 percent of income (the ILO Convention No. 102 basic benchmark for public pension adequacy is 40 percent) and without other supplemental income monthly benefits during retirement would be very lower than the current household poverty line index.

**165. The elderly face a particular challenge because they live in households with low levels of education – a legacy.** Low savings are exacerbated by low levels of education for the elderly in vulnerable and aspirational households. This disparity is significant: in the bottom 40 percent of households, only 1.7 percent of those with at least one member aged 80+ are headed by someone with tertiary education; in the top 60 percent of households, the same proportion is 20.6 percent. This finding on education is not surprising, given that the country experienced a remarkable increase in the education of the workforce in the last twenty years. As a result, older generations that did not acquire more education could not take advantage of the new economic opportunities created in the country and do not enjoy high incomes, even if they are not poor as defined by the poverty-line income.

*Income transfers have a limited but positive impact for the poor and vulnerable*

**166. The government provides significant transfers to households but until recently most were in the form of blanket fuel subsidies.** In 2013 the Government spent RM58 billion or 5.9 percent of GDP in transfers to households. The largest component was subsidies to petroleum products (estimated at 2.4 percent of GDP). The second largest component is pensions, which account for 6 percent of total expenditures or 1.5 percent of GDP. The remainder are scholarships, followed by one-off transfers such as BR1M and payments by the department of social welfare (together about 1.5 percent of GDP). One-off receipts include BR1M, School Assistance, BB1M, other cash and other in-kind. Employer's contributions are not included in the total aggregate, as they are funded by social insurance contributions levied on wages and therefore cannot be classified as public spending.

**167. The move towards more targeted transfers in lieu of untargeted subsidies is likely to further improve the targeting of Malaysia's government transfer spending.** Fuel subsidies are well-known to be regressive, with higher spending going towards higher income households who own more and larger vehicles. Malaysia has been moving towards more targeted government transfers. In 2014 it eliminated fuel subsidies, and BR1M was expanded to include individuals earning RM4,000 and below (in addition to those earning RM3,000 and below that were eligible in 2012 and 2013). For 2015, BR1M was increased further to help households adjust to the implementation of the Goods and Services Tax. As Figure 117 shows, BR1M reaches over 90 percent of the vulnerable group and about 75 percent of the aspirational group. Nearly 70 percent of benefits from BR1M accrue to the bottom half of the income distribution (Figure 118). The BB1M book assistance scheme, while not as large as BR1M, is also progressive.

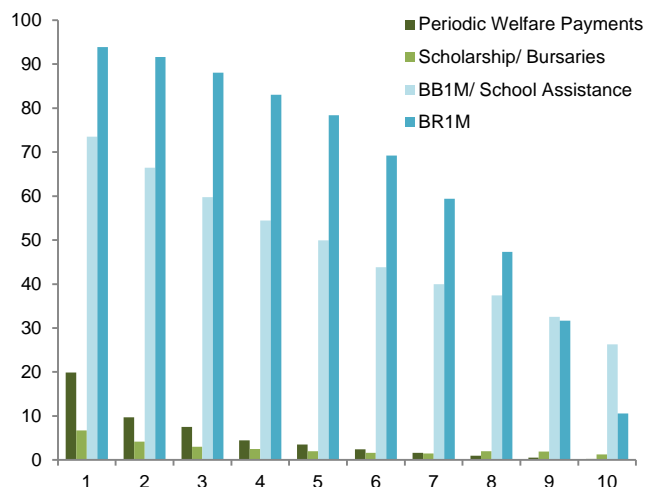
---

<sup>54</sup> Just under 60 percent of the non-Government labor force contributes to EPF, and these are mostly private employees that as shown above are concentrated in the aspirational, middle-and upper classes.

<sup>55</sup> According to Deputy Finance Minister Ahmad Maslan, as quoted in The Star (<http://www.thestar.com.my/News/Nation/2014/11/20/Parliament-Maslan-EPF-RM1mil>)

**Figure 117. BR1M reaches over 90 percent of the vulnerable group**

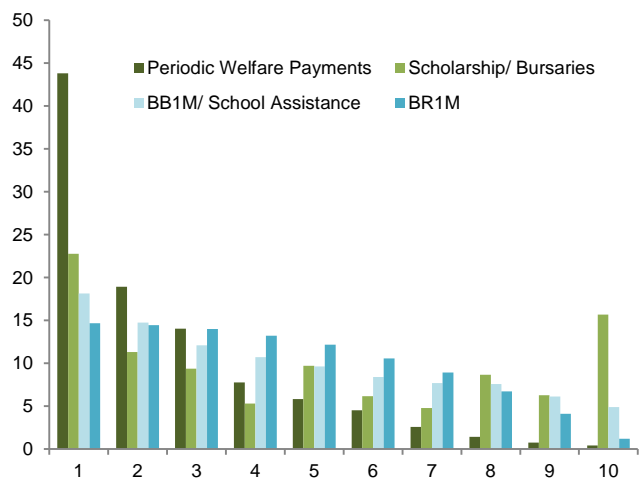
Percentage of households in each decile benefiting from programs



Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**Figure 118. BR1M and welfare payments are highly progressive**

Percentage of the program benefits that goes to recipients in each decile

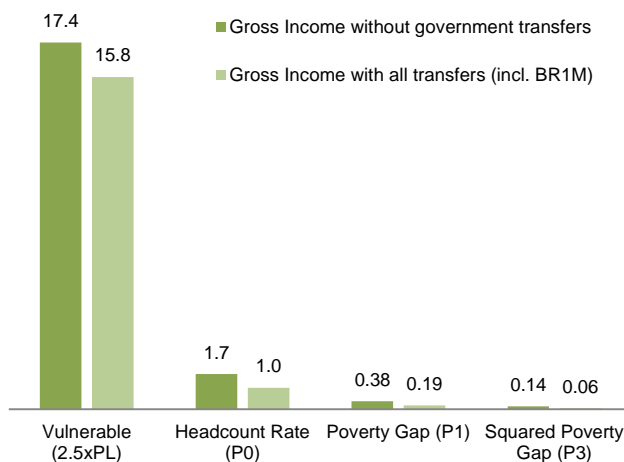


Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**168. Government transfer programs contribute to the reduction of poverty and vulnerability in Malaysia...** In the absence of Government transfer programs the poverty rate in Malaysia would be 1.7 percent, 0.7 percentage point higher than the post-transfer figure (Figure 119). Government programs not only reduce the number of people living below the poverty threshold, but they also increase the income of those who remain poor. The poverty gap and the squared poverty gap indexes before and after the social assistance programs with the largest per unit poverty reduction impact are transfers from the Department of Social Welfare (DSW), scholarships and one-off-receipts. The transfers reach the poorest households, as shown by the decline of the squared poverty gap. Average incomes of the first and second deciles, where most vulnerable households are, increase by 9 and 5 percent, respectively, thanks to government transfers, reducing the fraction of households that are vulnerable to falling into poverty from 17.4 to 15.8 percent.

**Figure 119. Government income transfers reduce poverty in Malaysia**

Percent of households



Source: HIS 2014 (preliminary), DOSM. World Bank staff calculations

**169. ...but their impact on income inequality is mild.** The distribution of income is not significantly affected by the introduction of social transfers. Both the Gini coefficient and the income ratio of the top and bottom 10 percent only mildly decline; other ratios are practically unchanged (Table 14). Moreover, the reduction in the Gini coefficient due

to Government transfers was slightly smaller in magnitude in 2014 (-0.007 points) compared to 2012 (-0.009 points) despite a larger size of BR1M in 2014. Such results are in line with the objectives of different programs; DSW targets poor households, defined on the basis of the national poverty line, BR1M targets vulnerable and aspirational households with income below the 50<sup>th</sup> percentile of the household income distribution.

**Table 14. The impact of social transfers on inequality is more limited**

	Gross Income without Government Transfers	Gross Income with all Government Transfers
<b>Gini Coefficient</b>	0.428	0.421
<b>Percentile Ratios</b>		
Top 10 / Bottom 10	7.3	6.9
Top 10 / Bottom 50	2.8	2.7
Top 25 / Bottom 25	2.7	2.6
Bottom 50 / Bottom 10	2.7	2.6

Source: HIS 2014 (preliminary), DOSM. World Bank staff calculations

## Policy options to fulfil aspirations of joining the middle class

### Boosting opportunities of income gains for the aspirational group

#### *Close educational opportunity gaps at post-secondary level*

**170. Closing educational gaps in post-secondary education will help aspirational households command higher wages in labor markets and requires not additional transfers, but addressing long-term factors through expanded pre-school enrolments and raising the quality of the low-performing schools.** Despite significant limitations of the analysis, the earlier findings that the magnitudes of estimated coefficients on the wealth quintiles in the Lathapipat's (2013) adjusted model are less than one-third of those obtained under the unadjusted model is suggestive. Differences in long-run family factors associated with scholastic ability are likely to account for much of the socioeconomic inequality in post-secondary enrolment that may be preventing the aspirational group from getting the jobs that will allow them to join the middle class. In order to address existing education inequality, it is not enough to make short-run interventions (through income support, tuition subsidies, or expansion of the student loan program) only during a child's late adolescent years. Rather, the Government needs to tackle the more challenging task of overcoming wealth-related inequality in preparedness for university and other post-secondary training starting from an early age by providing good child care facilities in disadvantaged communities, ensuring universal preschool attendance of high quality, and eliminating disparities in the quality of basic education. Only these investments can mitigate the effects of long-run background factors and level the playing field for all Malaysian children.

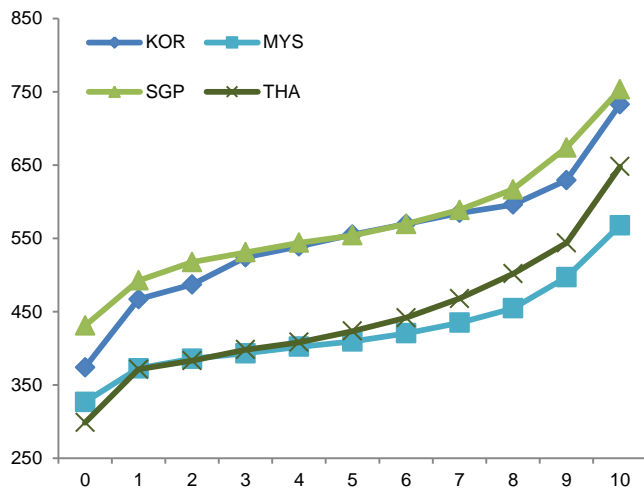
#### **171. Despite a significant increase in the past five years, the pre-primary enrolment rate remains lower than desired.**

The significance of early childhood education is now well-established (Heckman, 2006). One important mechanism through which early education affects labor force productivity is through its effect on non-cognitive skills – such as persistence or dependability (Heckman and Masterov 2007). Early childhood interventions are more effective than remedies that attempt to compensate later in life. In 2013, pre-school enrolment of 5- and 6-year olds stood at 81.7 percent, below the GTP's target of 88 percent for the year<sup>56</sup>. While this figure is somewhat higher than would be expected by Malaysia's income level, further improvements are possible, as recognized in the GTP targets (2015: 92 percent). In Thailand, for example, pre-primary enrolment among children aged 6 years and 5-4 years in 2012 was 99 and 81 percent respectively. On the other hand, it is important to ensure that expansion and quality go hand in hand, and the fact that nearly all pre-schools completed the quality self-assessment is a helpful step in that direction.

<sup>56</sup> Source: PEMANDU, GTP 2013 report.

**Figure 120. Raising the quality of all Malaysian schools to the 30<sup>th</sup> percentile of Korea or Singapore would significantly improve quality**

Distribution of PISA scores by school, by performance decile

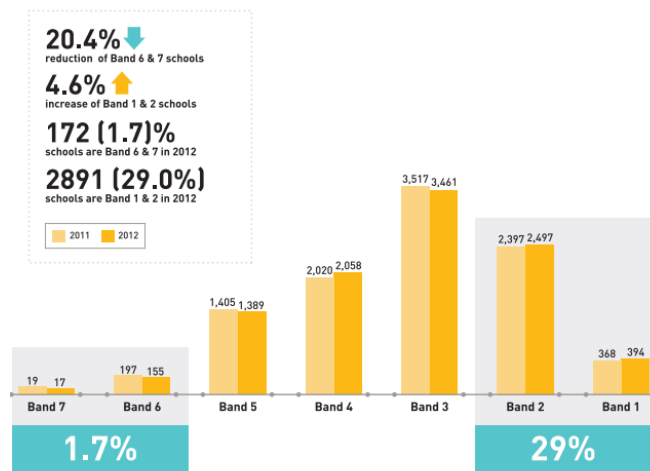


Source: OECD, World Bank Staff Calculations

**Figure 121. More schools need to be moved to Band 1 and 2, and quality standards need to be continuously elevated**

Percent

Overall School Banding Trend (2011- 2012)  
Chart showing the change in the number of schools in each Band



Source: PEMANDU (GTP Annual Report 2013)

**172. Further efforts can be undertaken to raise the quality of the lowest performing schools.** Schools in the second decile of performance in the 2012 PISA in Singapore or Korea perform at the same level as schools in the ninth or tenth decile in Malaysia (Figure 120). Significantly improving the quality of education by prioritizing performance of the worst-performing schools (which are highly likely to be serving economically-disadvantaged students) would not only raise overall standards, but provide better opportunities for aspirational households to be better prepared for entering post-secondary education. The NKRA's initiative on moving schools out of Band 6 and Band 7 is a very welcome step in this direction (Figure 121). Moreover, measures have been taken to allow greater decision making at the school level where the Ministry of Education is streamlining roles and responsibilities across federal, state, and district levels. Nevertheless, further measures, in particular related to further enhancing decision making at the school level, in particular with respect to curriculum and human resources, and boosting the quality of teaching, may be required for these improvements to be accelerated and of a sufficient magnitude to allow Malaysia to catch up.

**173. Malaysia can consider following the Shanghai example in having more single-session schools.** In early 2012, there were more than 1,500 double-session schools in Malaysia. These schools represent approximately 15 percent of all schools in the education system but account for 40 percent of student enrolments. Malaysia's schooling system is moving towards offering more single-session schools within budget constraints. In high density areas, double-session schooling is still unavoidable due to high enrolment rate.

**174. Singapore may also offer useful experiences for Malaysia with regard to teacher and principal recruitment.** In Singapore, new teachers are selected from the top one-third of the secondary school graduating class. Both academic ability and commitment to the profession are criteria for admission. Teaching internships for high school students create interest in the profession, and there is also a system for mid-career entry. Teachers receive competitive salaries compared to fresh graduates in other fields, although teacher salaries do not increase as much over time as those in private sector jobs. Nevertheless, outstanding teachers can boost their income with retention and performance bonuses. Each school has a bonus pool that it uses to allocate performance-based bonuses. Singapore's approach to school leadership is modelled on that found in large corporations; young teachers are continuously assessed for their leadership potential and given opportunities to demonstrate and learn.<sup>57</sup>

<sup>57</sup> Source: OECD (2011).

**175. Increasing opportunities to access post-secondary education also applies to those already in the workforce.** The range of measures to close the gaps in post-secondary education does not only apply to current and future entrants into the formal education system. Those who are currently in the workforce can also benefit from skills development and continuing education programs at the post-secondary level. Such investments would help to reduce the skills deficits and labor market imbalances noted in Selected Issue Note C, thus enabling the aspirational class to improve their career mobility and facilitate a transition to the middle class.

*Facilitate the creation and growth of enterprises*

**176. Better monitoring and evaluation of programs will enable current programs and policies that support entrepreneurship to be better targeted.** Although Malaysia already spends approximately RM13 billion on over 150 programs to support SMEs<sup>58</sup>, it is not clear if, and to what extent, these programs help to create equal opportunities for entrepreneurs and potential entrepreneurs from lower income backgrounds. Echoing the recommendations of the SME Masterplan (SME Corp, 2011), the government needs to place more emphasis on monitoring and evaluating these programs, supporting only those that have a positive, verified impact on employment and revenue generation. Monitoring and evaluation will also enable the government to better target specific groups at the lower end of the income distribution.

**177. Efforts to remove regulatory barriers that constrain the entry and growth of enterprises must continue.** Although significant entry and exit regulation reforms have been enacted under the SME Masterplan, informality rates are still high, while firms continue to cite regulatory bottlenecks and administrative challenges in entry, operation, and exit. Business licensing and permits at various stages of firm entry and operation can still be simplified. Table 15 summarizes some of the regulatory reforms that would encourage higher rates of formalization among businesses, and remove the disincentives to growth.

**Table 15. Regulatory Reforms to Support SMEs**

<b>Policy Measure</b>	<b>Purpose / Description</b>
Adopt competition policy	Continue efforts that are already underway to enact a competition law, liberalize sectors, and divest certain GLCs. Also, assess the impact of the competition policy on SMEs and adjust the policy accordingly over time.
Streamline administrative procedures required to comply with regulations	<p>Improve the efficiency and transparency of administrative procedures. Processes that involve interactions between business and government as well as internal operations within government offices should be redesigned to minimize steps and reduce cost.</p> <p>Note: Although the Malaysian Global Innovation and Creativity Center has been established under the Ministry of Finance as a physical “one-stop shop” for this purpose, efforts should also be placed on the establishment of a “whole-of-government” single access point for businesses to obtain information and undertake transactions.</p>
Review SME tax policies	<p>Simplify tax compliance costs for SMEs through presumptive taxation based on turnover, performance indicators, lump-sum payment (patent), or other mechanisms, and consider the need to reform tax rates and incentives.</p> <p>Malaysia, like other countries, has instituted a lower tax rate for SMEs. While a lower tax rate may provide an additional incentive for small businesses to formalize, the preferential treatment may pose an impediment to growth as well as an opportunity for abuse by larger companies. Tax rate reductions provide general tax relief; however, it may be appropriate to provide different types of incentives for investment in R&amp;D, training and fixed assets by SMEs.</p>

Source: World Bank (2011, unpublished draft), adapted by authors

<sup>58</sup> This figure refers to projected total spending on SME development in 2014 and was announced by the Prime Minister in his keynote address at the SME Bank International Forum 2014, as quoted by the New Straits Times (See <http://www.nst.com.my/node/45057>).

**178. Improvements in access to finance could push forward, with greater attention to lower-income entrepreneurs.**

Many of the recommendations related to access to finance under the SME Masterplan have been implemented, specifically with regards to angel financing and regulations for non-bank lending. New forms of financing have also been introduced in partnership with the private sector, most recently in the form of Cradle's co-investment fund and the Axiata Digital Innovation Fund. However, the Government needs to more rigorously assess their returns on investment in terms of expanding opportunities to lower-income groups.

**179. The quality of entrepreneurship training programs must be upgraded, both for potential and current entrepreneurs.**

More attention must be given to the quality and impact of entrepreneurship training programs, regardless of whether they are provided through government agencies or institutions of higher education. Assessing who these programs aim to target, what their objectives are and what their results have been on entrepreneurial performance and propensity can better inform their design and content. For example, if entrepreneurship programs in higher education institutions are meant to increase the numbers of innovative entrepreneurs, then programs should equip students with the skills to identify opportunities for innovation and mechanisms for commercialization. With regards to training current entrepreneurs, international evidence suggests that the government needs to adopt demand-driven approaches involving the market and investors when it comes to identifying the 'right' participants, since this is not its area of expertise (Valerio et al, 2014).

### Enhancing the social protection system...

**180. While policies to boost incomes are important, parallel improvements must be made to ensure that Malaysia's social protection (SP) system facilitates a sustainable transition into the middle class.** Until now, the SP system in Malaysia has been dominated by subsidizing fuel costs and pensions for civil servants and the formal private sector. The recent reform of fuel pricing and current low oil prices provides an opportunity for Malaysia to reorient its SP system to one more aligned with global good practice among upper middle-income and high-income countries, and to the emerging needs of a middle-class society.

**181. A defining feature of mature SP systems is that they facilitate risk management by households across the income distribution, providing support of different forms for the poor, vulnerable and aspirational groups, and those in the formal sector.** SP spending as a share of total public spending also increases as countries get richer, and has risen over time for countries at all income levels. The shrinking share of absolute poor in Malaysia necessitates a rebalancing of the SP system towards managing a more diverse set of risks across a wider population. This section describes how Malaysia can make such advancements across three key areas:

i) **Social assistance (protective programs):** Social assistance programs for the poor remain important, but tend to become more integrated. This includes moving to more consolidated targeting, delivery and data management systems. They also emphasize "productive welfare", promoting sustained graduation from social assistance for those with work capacity.

ii) **Social insurance (preventive programs):** In upper middle-income and high-income countries, SP systems tend to allocate more to social insurance programs. These help manage risks across the life cycle, whether unemployment, injury and disability during working life, or income adequacy during old age. Emerging ageing in Malaysia gives urgency to ensuring wider and deeper coverage of age-related risks in particular.

iii) **Labor-related programs (promotional programs):** These seek to improve labor market efficiency and support the human capital enhancement necessary for sustained productivity growth, and become increasingly important in the context of transitioning to a middle-class society

**182. Across all three areas – social insurance (preventive programs), social assistance (protective programs), and labor-related programs (promotional programs) – SP policy should also become more closely aligned with broader economic and fiscal goals.** SP spending as a share of total public spending also increases as countries get richer, and has risen over time for countries at all income levels. A further defining trend in SP as countries move to high income status is greater institutional consolidation and specialization in SP programs. In recent years in Malaysia, an increasing number of agencies have been involved in SP policy and implementation roles. In contrast, most high-income countries and many middle-income ones have achieved considerable concentration and consolidation of SP



institutions. This helps promote policy and program coherence, helps to consolidate front-end service delivery for the benefit of citizens, and increases accountability in government. In the context of the 11<sup>th</sup> Malaysia Plan, the Government is considering deeper reforms of its SP system. The following sections provide some potential reform options based on international experience.

### *Strengthen and better target social assistance programs*

**183. Malaysia's social safety net has become fragmented in terms of institutions, policies and delivery systems over time, and would benefit from greater integration and coherence in each dimension.** Until the recent fuel subsidy reform, Malaysia has had a rather skewed social assistance system, where better targeted programs (in particular those administered by DSW) remained overly modest while programs with weaker targeted performance (such as fuel subsidies) have dominated public spending. Just as significantly, there has been a proliferation of social assistance programs across agencies which often target similar groups, but in ways which lack consistency, and are inefficiently administered. As the country prepares for targeted mitigation measures if oil prices rise in future, better protect the poor and vulnerable, and achieve greater efficiency and client-orientation in safety net programs, some of the key areas of focus include improving targeting systems, leveraging the safety net for better economic outcomes, and enhancing efficiency in delivery systems.

**184. Consolidating the number of SP programs and strengthening front-end service delivery are also essential.** A large number of agencies are involved in both policy development and program implementation of SP in Malaysia, creating and contributing to fragmentation, lack of coordination and duplication of programs. As a result, there has been a proliferation of small and similar type of programs across multiple agencies. There is also fragmented data management across agencies and programs. Though there have been welcome efforts to consolidate data across the core e-kasih, e-bantuan and e-BR1M programs under ICU, the systems have yet to become inter-operable in a way that would enhance real-time beneficiary assessment, program management, and cross-program synergies. In addition, the effectiveness of the existing system is constrained by the lack of a high level coordinating function or body that could help in promoting coherence, consistency, and sustainability. The consolidation and coordination of SP programs can be more easily accomplished by designating a central, high-level entity.

**185. Malaysia can greatly improve the targeting of its safety net programs to ensure that they are aligned with the needs of different groups – the poor, vulnerable and aspirational.** To be effective, social safety net programs should provide the appropriate level of benefits to the appropriate groups of people. At present, there is no standardized targeting mechanism across SP programs in Malaysia. Each of the three targeting approaches – e-Kasih, e-Bantuan and BR1M - utilize different procedures to determine the beneficiaries of targeted programs, in terms of the unit of targeting (individual, household, and nuclear family), the method of determining eligibility, and thresholds for eligibility. This results in a safety net system which is inefficient administratively and places significant demands on potential clients (who must go through multiple application and assessment processes). As a result, some poor households are still excluded from programs, while a considerable proportion of social assistance benefits is accorded to non-poor households. A standardized targeted mechanism such as a Proxy Means Test (PMT) as used for example in Chile could improve targeting outcomes as well as fairness, efficiency and transparency. A more objective approach is also something that appears to be welcomed by front-line service providers. This would generate both better protection for the poor and vulnerable and potential budgetary savings.

**186. Safety net policies and programs should also leverage wider social and economic objectives to enlarge the middle class.** In particular, BR1M benefits are not only given to poor and vulnerable households, but also a significant share of aspirational households. Whether or not aspirational households receive BR1M should depend on the objective of the transfer vis-à-vis the financial capacity of the government to sustain the program. Considering the costs of BR1M, the government may consider ways in which it can leverage other outcomes tied to the BR1M. The approach of carving out a portion of the BR1M benefit for life insurance or death benefit in the last two rounds is an example of healthy exploration in this regard. Some other options to consider may be: (i) depositing BR1M payments into an EPF or other approved old age savings vehicle; or (ii) similarly, structuring future BR1M payments as a "matching incentive payment" for those who open new EPF accounts. Both these approaches could help to address the serious deficiency of old age savings in Malaysia, and should be relatively easy to administer. Payments might also be linked in some way to human capital objectives, e.g. making BR1M payments for those in certain age groups

conditional on proof of school or college attendance. This would impose some administrative demands but could be an additional tool in Malaysia's efforts to deepen its human capital base.

*Enhance productive welfare and active labor market programs*

**187. One important aspect of social assistance programs that is not yet systematic in Malaysia is exit and graduation policies to promote “productive welfare”.** Most existing social assistance programs currently do not have mandates nor incentives to exit programs for those with work capacity. In other countries, social assistance programs often have time limits for the receipt of benefits for those who are work-able (exit policies) and include incentives in the benefit design to re-enter work (graduation policies). The first step in promoting productive welfare in many OECD and middle income countries is some form of *client profiling* to determine the most appropriate interventions according to the client's needs and capacities. This is in some ways being done under the 1AZAM Program, though methods used in OECD countries tend to be more comprehensive (Box 11). A second measure is mandating active job search by social welfare clients where they have work capacity, e.g. by requiring enrollment with public employment services and evidence of regular job applications in order to continue receipt of welfare payments.

**188. Such policies require deeper alignment of social welfare programs with active labor market programs (ALMP) to promote sustainable graduation from welfare for those who are able.** A third direction for future reform in this area relates to active labor programs themselves. At present, Malaysia spends a relatively limited amount on ALMPs, but spreads that spending thinly across multiple agencies and programs without clear linkages or assessment of impacts. As a result, it does not yet achieve economies of scale and lacks a “backbone” promotional program. It would be desirable over time to assess which programs are most cost-effective, then streamline ALMPs and focus on flagship programs which draw on the limited resources within government. In all of these measures, enhanced coordination across public agencies, in particular between DSW and public employment services, is critical. A number of countries have made an effort to make these linkages and complementarities more systematic, and cases such as Chile's Solidario program, China's dibao social assistance program, Mexico's PROSPERA program, and Brazil's Bolsa Familia program provide useful lessons for Malaysia as it seeks to promote productive welfare.

**Box 11. 1AZAM – Income generation for low income households**

Introduced in 2011, the 1AZAM is a series of income generation programs aimed at ‘productive’ low income households. It comprises four different sub-programs, detailed below:

Program	Description	Ministry/Agency
AZAM Kerja*	Provides basic training and equipment followed by job placements (e.g. restaurant workers, hotel workers and small businesses activities such as tailoring and working from home)	Ministry of Human Resources
AZAM Niaga*	Focuses on opportunities to start small businesses	MWFCD & Amanah Ikhtiar Malaysia
AZAM Khidmat*	Creates small service providers	MWFCD & Amanah Ikhtiar Malaysia
AZAM Tani	Creates opportunities in small-scale agriculture	Ministry of Agriculture and Agro-based Industries
Insurans 1AZAM	Provides death, permanent disability and bereavement benefits, and covers funeral expenses for members of poor households	MWFCD, via Alliance Bank
AZAM Bandar	Focuses on the urban poor. Comprises of all sub programs under the 1AZAM program.	Ministry of Housing and Local Government

\*These programs provide a package of training and capital grants (micro-credit or in-kind) to kick start small-scale income generation schemes. Microfinancing for AZAM Niaga and AZAM Khidmat is handled by Amanah Ikhtiar Malaysia.

Institutionally, each of the 1AZAM programs is run by a particular agency and may include collaboration with NGOs. The Ministry of Women, Family and Community Development (MWFCD) leads the coordination and implementation all the programs, and uses the e-kasih system database for determining eligible recipients (classified as hardcore poor, poor, vulnerable or low income groups). In Sabah and Sarawak, the 1AZAM schemes are implemented by the respective state governments and termed as 1AZAM Sabah and 1AZAM Sarawak, encompassing five sub-programs.

Early results from an assessment of 1AZAM programs are as follows:

- In 2011, 63,147 households, or approximately 60 percent of the total number of poor households, were covered by 1AZAM schemes. The majority participated in 1AZAM Niaga and 1AZAM Khidmat.
- 18,000 1AZAM participants improved their incomes RM 300 (at any three months) as of December 2013. Based on the e-Kasih system, this is equivalent to 38 percent of 1AZAM participants (Pemandu GTP Annual Report, 2013). If sustained for a year, this improvement would be valued at around RM 64 million, although the degree of direct attribution to 1AZAM and the sustainability of the income improvement are hard to predict and involve longer periods of monitoring.
- The Auditor General's report (2013) confirms that "out of 265 [1Azam] participants interviewed randomly, 132 (49.8 percent) were able to increase their household income to more than RM 300".

Continuous monitoring and evaluation, and periodic publishing of their findings, are crucial in enabling informed decisions on how the 1AZAM schemes can be scaled up and improved, especially given the multitude of actors involved.

Moreover, although there are benefits from involving technical ministries in the program, justifying the division of programs with different groups and objectives is challenging. While ministries attempt to differentiate the income generation opportunities offered to suit different needs of the participants, they tend to be very similar in nature. Balancing the needs of the recipients and achieving the overall objectives of the program is thus a key challenge moving forward.

Source: PEMANDU, authors

### *Coordinate Social Insurance with Social Assistance*

**189. A coordinated set of social insurance and social assistance policies can protect Malaysians against unexpected decreases in income and welfare from a range of shocks, such as old-age, disability, death of a wage earner or unemployment.** Private, state-sponsored and informal savings arrangements are also essential to protecting workers against welfare losses from shocks. In this regard, social insurance programs can play three useful roles: i) promote risk-taking and thus contribute to incentives to adopt higher risk-return activities; ii) contribute towards labor market mobility; iii) reducing inequality through redistribution, thus making growth-enhancing reforms socially sustainable. These objectives apply equally to workers at the top, middle and bottom of the income distribution, and promote social risk management and broader economic goals.

**190. In the face of emerging rapid aging, Malaysia's savings and social insurance programs currently provide limited risk protection due to substantial coverage gaps, shallow financial protection for those with SI coverage, fragmentation and weak coordination.** While most high income countries have close to universal coverage of the labor force in social insurance programs, only about 57 percent of Malaysia's labor force is enrolled in retirement savings or social insurance programs. This is not unusual at Malaysia's income level, but means that a proactive strategy is needed to expand social insurance coverage rapidly in coming years. The experience of recent years suggests that "business as usual" in terms of a very gradual expansion of contributory pensions and lack of coverage of key risks such as unemployment is unlikely to be sufficient, requiring innovation in the Malaysia's SI system. More specifically, the following issues exist in the policy and institutional framework:

- **Additional public transfers are needed to the elderly poor and vulnerable.** Measures to consider include increasing assistance provided by the Bantuan Orang Tua (BOT) program, and considering a wider target group of elderly for the benefit.
- **EPF account balances at retirement are too low to provide a meaningful source of income in old age.** 69 percent of account accumulations at retirement age were below RM50,000, and such balances are not annuitized, so retirees bear substantial risks that they outlive their EPF proceeds. Moreover, more than 40 percent of the labor force is not covered by either the EPF balance or civil servant scheme, including self-employed and temporary workers. Finally, the relatively high contribution rate of 23-24 percent (plus 2.25 percent for SOCSO) creates incentives to underreport wages or avoid contributing entirely.

- **Limited linkages between EPF and SOCSO schemes.** While the Social Security Organization (SOCSO) provides reasonable employment injury insurance, invalidity and survivorship insurance to contributing members, it is not linked to the EPF, either operationally or in program design. SOCSO has a slightly different membership base than the EPF, uses a separate collection channel and is subject to a separate set of parameters. Neither SOCSO nor any other public institution currently provides a vehicle for unemployment insurance.
- **Limited portability of the civil service pension scheme.** The Civil Servant's Pension Scheme (CSPS) provides a strong package of retirement and other income security benefits for government workers, covering just under 10 percent of the labor force. However, its lack of portability acts as an obstacle to labor mobility. There is no transferability of accrued rights between the civil service pension scheme and EPF, and hence civil servants moving to the private sector face significant portability losses. Full or partial integration of the civil service scheme with the national mandatory social security scheme is an opportunity to promote labor market efficiencies.
- **Relatively high EPF contribution rates.** Malaysia has recently reformed the framework, regulation and supervision of occupational and personal private retirement schemes (PRS). This is a well-considered and regulated framework though has had a slow start in attracting new members, in part due to the relatively high contribution rate for the EPF.

**191. Given the issues outlined above, a unified vision is needed to protect all Malaysians, but particularly those who are poor, vulnerable and aspirational, against income shocks – including loss of income in old age.** Such a vision might consider the following principles: it should be accessible to all segments of the labor force; social insurance instruments should co-insure multiple risks yet create strong incentives for participation; and targeted social assistance should provide for elderly, disabled, survivors and others in poverty. Such a vision could have three tiers of instruments:

- (i) *Tier 1 – Non-contributory old age social assistance* should aim to provide for those individuals who face poverty in old age. Budget transfers should be targeted to elderly in poor or vulnerable households. The benefit amount could be partially offset according to benefits received by the EPF and SOCSO.
- (ii) *Tier 2 – A contributory pillar* could operate under a framework of a unified social security scheme drawing upon existing institutions and designs.
  - Old age retirement savings and social insurance could build upon existing EPF provident fund design and institutional setup but provides **phased-withdrawal or annuitized benefits**, instead of the current lump-sum.
  - **Voluntary contributions by the self-employed, unemployed or other informal sector workers** could be encouraged by an expanded matching grant program for low income workers without labor contracts.
  - **Disability and survivorship benefits** could be managed as currently, albeit with collections, account and data management and disbursement functions unified under one institutional umbrella.
  - **Protection against short-term income losses** should also be provided, including work injury, short-term disability and the introduction of a modest unemployment insurance scheme (as proposed in the Prime Minister's budget speech in October 2014).
  - **Gradually merging the civil service pension scheme into the contributory pillar**, by having new entrants to the civil service contribute to the social security scheme. Parametric reforms are also suggested for the civil service scheme. Finally, technical revisions could be considered in order to reduce portability losses for leaving the civil service during one's work life.
- (iii) *Tier 3 – The framework for voluntary contributory private retirement schemes (PRS)* should remain and be strengthened under a unified regulatory and supervisory framework with simplified regulated annuity products for retirement. An occupational scheme to provide supplementary benefits for civil servants joining the social security scheme could also be considered.

**192. Improving coverage, efficiency and adequacy of old age income protection will also require institutional reforms. Some priorities to consider are:**

- *Moving the future social security system towards a single client interface and contribution channel.* The EPF could continue to be responsible for provident fund management and possibly could take on additional responsibility for managing an annuity product. SOCSO could continue to be responsible for managing

disability, survivorship and work injury benefits as well as take on responsibility for an unemployment insurance product.

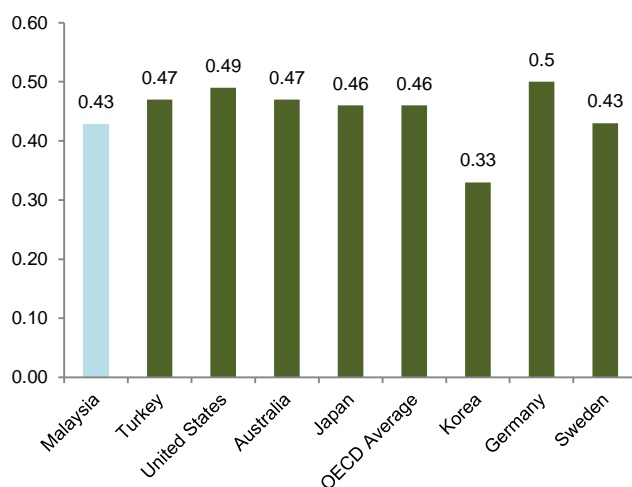
- *Unifying and strengthening compliance monitoring and enforcement.* Additional enforcement measures could be considered, such as linking business license or government contract authorization to certifications of compliance with tax and social security contribution requirements.
- *Determining eligibility for elderly social assistance* using a strengthened targeting system, with the benefit level determined based on linkages between social security institutions and DSW.

### ...financed through more progressive taxation

**193. Overall fiscal policy (taxes and transfers) is an important tool for shared prosperity in advanced economies.** In most OECD economies, with the notable exception of Korea, individual disparities in market incomes tend to be elevated. The Gini coefficients of market income (before government transfers and income tax payments) are similar in Malaysia and Sweden. Malaysia's inequality in market incomes is in fact lower than that in Germany, the United States or OECD countries on average (Figure 122). However, OECD countries achieve a reduction of inequality of 0.14 Gini points through progressive taxation and social safety net systems (Figure 123). Although the welfare states of Northern Europe achieve large reductions in inequality through tax and transfers as expected, compared to Malaysia countries such as the United States, Japan, and even Turkey also achieve larger reductions in inequality through their tax and transfer systems.

**Figure 122. Malaysia's pre-tax and transfer Gini coefficient is lower than Germany's...**

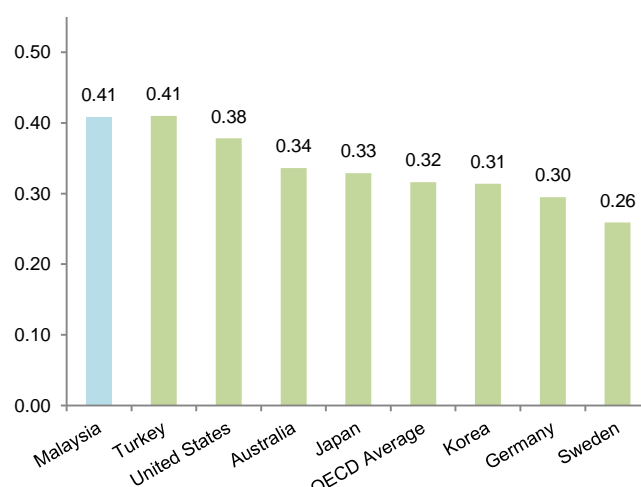
Gini coefficient on market income (before taxes and transfers)



Source: OECD, HIS 2014 (Malaysia), World Bank staff calculations

**Figure 123. ... but after tax and transfers Malaysia's Gini coefficient is little changed, while Germany's drops**

Gini coefficient on disposable income (after taxes and transfers)



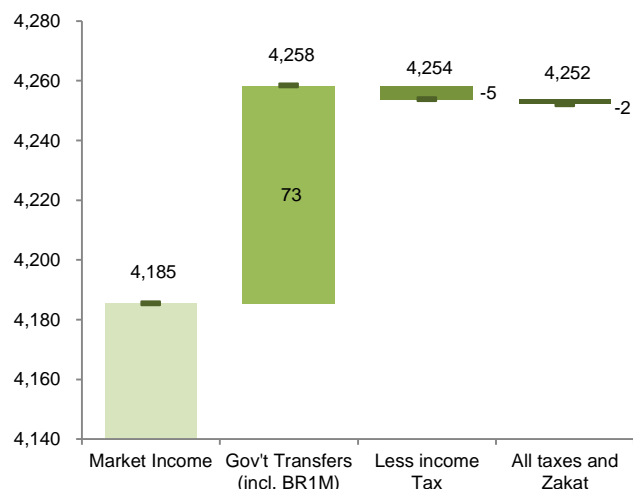
Source: OECD, HIS 2014 (Malaysia), World Bank staff calculations

**194. Malaysia's fiscal system is also progressive, but it achieves limited redistribution and thus has a negligible impact on inequality.**

Figure 124 and Table 16 illustrate the concepts of market and disposable income used in Figure 122 and Figure 123. The median household in Malaysia has market income, including transfers from other households, pensions, and income from savings and investments, of RM4,185 per month. It receives different types of Government transfers (the largest of which would be BR1M) equivalent to RM73 per month on average, bringing the monthly income to 4,258. It pays an average of RM5 in income taxes, and an additional RM2 in other taxes and Zakat, resulting in a disposable income of RM4,252. Table 17 shows the breakdown of these different concepts of income across all deciles in the income distribution. As expected, households in higher income groups pay more in income taxes and receive less in transfers than those at the bottom of the income distribution, a characteristic of a progressive fiscal system. This leads to a reduction in inequality, which is illustrated in detail in Figure 125.

**Figure 124. Government transfers reach many households...**

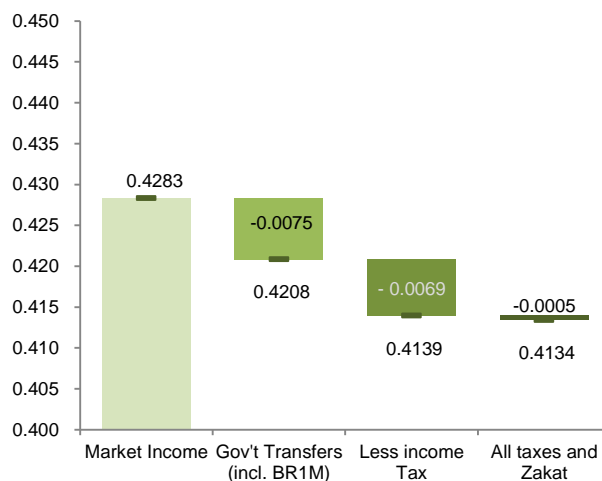
Decomposition of monthly income at the median household



Source: HIS 2014 (preliminary), DOSM and World Bank staff calculations

**Figure 125. ...reducing inequality along with income taxes**

Gini coefficient, different income measures



Source: HIS 2014 (preliminary), DOSM and World Bank staff calculations

**Table 16. Incomes included in the analysis**

TYPE OF TRANSFER and TAX	Income Measure			
	GROSS OF TAX		NET OF TAX	
	Y0	Y1	Y2	Y3
<b>Government Transfers</b>				
Periodic welfare payments from Welfare Dept or other government agencies	X	√	√	√
BR1M, Book voucher, school assistance	X	√	√	√
Scholarship/Fellowship	X	√	√	√
<b>Other Transfers</b>				
Pensions	√	√	√	√
Remittances, alimony, gifts (cash/in-kind), other non-government transfer	√	√	√	√
<b>Compulsory Tax</b>				
Income Tax	√	√	X	X
Zakat Pendapatan and other tax (property tax, business tax, etc.)	√	√	√	X

Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

**195. Although Malaysia's taxation and transfer system is progressive, a comparison with OECD and other emerging countries suggests a potential area for future policy action.**

Figure 126 shows that Malaysia's top marginal income tax rate is low relative to most OECD countries and even many emerging Asian countries such as Korea (38 percent), Japan (50.8 percent), Thailand (35 percent) and China (45 percent). On the other hand, the income threshold for the top bracket is in line with most countries in the sample. While personal income tax rates are lower and the top bracket threshold higher in Singapore, the comparison is difficult given that Singapore is a city-state that also levies property taxes as well as vehicle taxes and quota premiums that combined bring in 15 percent of fiscal revenues each year.

**Table 17. Impact of tax and transfers on the income distribution by income deciles**

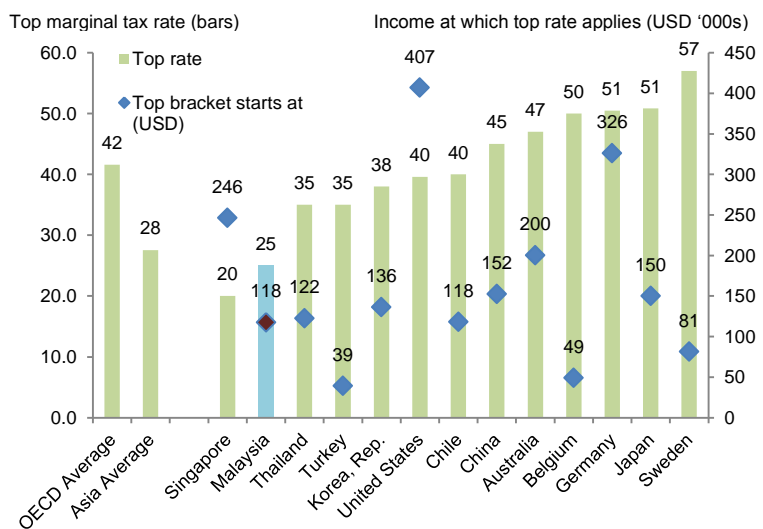
Income Decile	Mean Annual Income				Effective Tax Rate
	Y0	Y1	Y2	Y3	
Decile 1	13,429	14,750	14,750	14,749	0.0
Decile 2	23,005	24,171	24,169	24,166	0.0
Decile 3	31,389	32,506	32,502	32,499	0.0
Decile 4	38,617	39,564	39,555	39,547	0.0
Decile 5	45,943	46,876	46,840	46,825	0.1
Decile 6	55,220	56,053	55,977	55,958	0.2
Decile 7	67,374	68,085	67,896	67,857	0.3
Decile 8	84,601	85,226	84,805	84,739	0.6
Decile 9	114,331	114,826	113,561	113,419	1.2
Decile 10	227,891	228,236	219,753	219,108	4.0

Source: HIS 2014 (preliminary), DOSM, World Bank staff calculations

Notes: See Table 16 for the definitions of Y0, Y1, Y2 and Y3

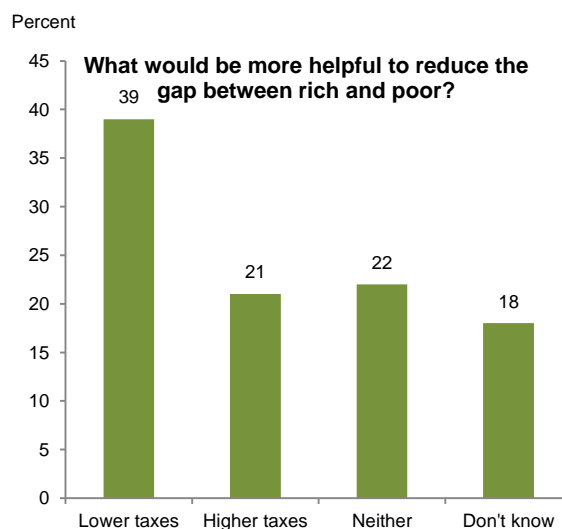
**196. An expanded social safety net could be funded by a more progressive tax system.** One way this could be accomplished would be a combination of expanding the tax base beyond the 20 percent of income earners who currently pay taxes to reach more of the 33 percent of households in the middle and upper classes, and gradually raising marginal tax rates on the top income earners closer to OECD levels. Additional options that could be considered in a reform of the tax system with a view of increasing progressivity are an increased role for property taxes in financing local governments; inheritance taxes; and capital gains taxes. While a full analysis of the relative benefits and costs of each option is beyond the scope of this chapter, the evidence does suggest that some form of increased progressivity in taxation would support greater reductions in inequality. Interestingly most Malaysians appear to believe that lower taxes would be most helpful to reduce the gap between the rich and the poor by creating additional jobs (Figure 127). This is in contradiction with research by Ostry et al. (2014) and Cingano (2014) that suggest that lower inequality, which may be partly accomplished through more progressive taxes, would create additional jobs.

**Figure 126. Malaysia's pre-tax and transfer Gini coefficient is the same as Sweden's.**



Source: OECD, HIS 2012, World Bank staff calculations

**Figure 127. Despite already-low taxes, Malaysians believe lower taxes will reduce inequality.**



Source: Gallup World Poll 2014

## Appendix 1: Glossary

Concepts	Definition	Notes
<b>Poverty Line (poverty threshold)</b>	Cut-off points in income, consumption or another non-monetary measure separating the poor from the non-poor. Poverty lines can be absolute or relative (see below).	
<b>Absolute poverty line</b>	A fixed standard of what households should be able to count on in order to meet their basic needs.	As of 2008, the World Bank defines the international poverty line as US\$1.25 a day (in 2005 Purchasing Power Parity terms).
<b>Relative poverty line</b>	A cut-off defined in relation to the overall distribution of income or consumption in a country.	
<b>Economic distance</b>	A relative measure of household well-being, based on a percentage of median income, or an absolute difference in per capita income between social groups.	E.g. the proportion families with household income that is less than 50 percent of median income.
<b>Headcount index (incidence of poverty)</b>	The share of the population whose income or consumption is below the poverty line.	The headcount index is easy to measure, but does not take into account the intensity of poverty.
<b>Poverty gap index (depth of poverty)</b>	The distance of poor households from poverty thresholds. This measure captures the mean aggregate income or consumption shortfall relative to the poverty line across the whole population.	The poverty gap index does not reflect changes in inequality among the poor.
<b>Squared poverty gap index (poverty severity)</b>	The average of the squares of the poverty gaps relative to the poverty line. This measure takes into account not only the poverty gap (see above), but the level of inequality among the poor.	
<b>Deprivation</b>	A relative measurement of poverty that goes beyond monetary indicators, taking into account goods/activities that are seen as basic necessities.	
<b>Growth Incidence Curve (GIC)</b>	Indicates the growth rate in income or consumption between two points in time at each percentile of the distribution.	The GIC is useful to analyze the impact of aggregate economic growth over a wide range of the distribution.
<b>Income share</b>	Share of income received by a particular decile of the household income distribution.	Used as a measure of inequality, the ratio of income shares between the top and the bottom of the distribution shows the gap between the income received by the top decile compared to that received by the bottom decile (e.g. top 20% vs. bottom 40%).
<b>Gini coefficient</b>	The most commonly-used measure of inequality. It measures the extent to which the distribution of income or consumption among households deviates from a perfectly equal distribution.	The coefficient varies between 0, which reflects complete equality, and 1, which indicates complete inequality.
<b>Percentile dispersion ratio</b>	A measure of inequality which presents the ratio of the average income or consumption between the richer and poorer percentiles.	This ratio is easily interpretable by expressing the income of the rich as multiples of that of the poor. E.g. top10/bottom 10 = 5 means the 90th percentile enjoys five times more income than the 10th percentile.
<b>Theil Index</b>	Another measure of inequality that can be decomposed into within and between inequality (additive across different subgroups).	The Theil index is less commonly used because it is comparatively less straightforward to interpret.
<b>Dependency ratio</b>	The (economic) dependency ratio is defined as the proportion of economically inactive household members to working household members. It measures the number of inactive household members for each active member.	

Source: Authors



## Appendix 2: Summary Statistics

	Poor	Vulnerable	Aspirational	Middle/Upper
Min Income (RM per person)	67	226	565	1577
Max Income (RM per person)	226	565	1576	64949
Mean Income (RM per person)	183	426	1004	3021
Share of total households	1	15	51	33
Urban	39	56	76	89
Rural	61	44	24	11
<b>Household Size</b>				
6+ members	72	45	23	11
5 members	12	20	20	14
3-4 members	13	27	40	43
1-2 members	3	9	17	31
<b>Education</b>				
Primary education	54	37	23	8
Lower Secondary	23	25	18	8
Upper Secondary	21	33	43	29
Post-Secondary	2	5	16	55
<b>Employment</b>				
Own-account workers	54	34	23	14
Private employees	33	49	54	55
Unpaid/Unemployed	9	8	5	2
Employer	0	1	2	5
Public employee	2	5	12	19
Pensioner	2	3	4	4
<b>Sector of Employment</b>				
Agriculture	46	24	12	4
Services	38	52	62	70
Construction	10	12	9	9
Manufacturing	4	11	16	14
Primary resources	3	2	2	3
<b>Assets</b>				
Savings	6	16	22	26
Investment	19	48	67	76
Total with financial assets	21	53	73	82

Source: Household Income Survey 2014 (preliminary), DOSM. World Bank staff calculations

Notes:

1/ The groups are classified according to the following definitions:

- Poor – below the poverty line (PL)
- Vulnerable – between PL and 2.5XPL
- Aspirational – between 2.5XPL and the mean
- Middle/Upper – above the mean

2/ All income figures derived on real per capita gross income and refer to monthly income per person

3/ All numbers are in percentages unless noted as otherwise

## References

- Abdul Rahman, R. (2006). *Effective corporate governance*. Ed ke-1. Shah Alam: University Publication Centre.
- Alesina, A., R. Di Tella, and R. McCulloch. (2004). Inequality and Happiness: Are Americans and Europeans Different? *Journal of Public Economics* 88: 2009-42.
- Alesina, A. and R. Perotti. (1996). Income distribution, political instability, and investment. *European Economic Review*, Elsevier, vol. 40(6), pages 1203-1228, June.
- Aghion, P., E. Caroli, and C. Garcia –Penalosa. (1999). Inequality and Economic Growth: The perspective of the New Growth Theories. *Journal of Economic Literature* (December): 1615-1660.
- Alwang, J., P.B. Siegel, and S.L. Jorgensen. (2001). Vulnerability: A View From Different Disciplines. Social Protection Discussion Paper Series, No. 115, World Bank, Washington D.C.
- Amorós, J. and N. Bosma. (2013). Global Entrepreneurship Monitor 2013 Global Report: Fifteen years of Assessing Entrepreneurship Across the Globe. Global Entrepreneurship Monitor, available at <http://www.gemconsortium.org/docs/download/3106>
- Atkinson, A. B. (2009). Factor shares: the principal problem of political economy? *Oxford Review of Economic Policy*, 25 (1), pp. 3-16.
- Autor, D. & A. Manning and C. L. Smith. (2010). The Contribution of the Minimum Wage to U.S. Wage Inequality over Three Decades: A Reassessment, NBER Working Papers 16533. National Bureau of Economic Research (NBER): Cambridge, MA.
- Baffes, J. and A. Dennis. (2013). Long-Term Drivers of Food Prices. World Bank Policy Research Working Paper No. 6455.
- Ball, Laurence (2014). Long-Term Damage from the Great Recession in OECD Countries. NBER Working Paper 20185. National Bureau of Economic Research: Cambridge, MA.
- Banerjee, A.V. and E. Duflo. (2000). Inequality and Growth: What Can the Data Say? NBER Working Paper 7793.
- Banerjee, A.V. and E. Duflo (2007). What is Middle Class about the Middle Classes around the World? *Journal of Economic Perspectives*, American Economic Association, vol. 22(2), pages 3-28, Spring.
- Banerjee, A.V. and E. Duflo (2011). *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. Public Affairs, New York.
- Belley, P., and L. Lochner. (2007). The changing role of family income and ability in determining educational achievement. NBER Working Paper No. w13527. NBER: Cambridge, MA.
- Birdsall, N., C. Graham, and S. Pettinato. (2000). Stuck in the Tunnel: Have New Markets Muddled the Middle? Center on Social and Economic Dynamics Working Paper Series No.14 (May). The Brookings Institution: Washington, D.C.
- Birdsall, N. (2009). The Macroeconomic Foundations of Inclusive Middle-Class Growth. In *The Poorest and Hungry*, International Food Policy Research Institute, Washington D.C.
- Birdsall, N. (2010). The (Indispensable) Middle Class in Developing Countries; or, The Rich and the Rest, Not the Poor and the Rest. Working Papers 207, Center for Global Development, Washington D.C.
- Bracke, T. and M. Fidora. (2008). Global Liquidity Glut or Global Savings Glut? A Structural Approach. ECB Working Paper No. 911, European Central Bank.
- Broner, F., T. Didier, A. Erce, and S. Schmukler. (2013). Gross capital flows: Dynamics and crises. *Journal of Monetary Economics* 60, 113-33.
- Cabrera, W., J. Hurtado, M. Morales, J.S. Rojas. (2014). A Composite Indicator of Systemic Stress (CISS) for Colombia. *Borradores de Economía* No. 826.
- Cagetti, M. and M. De Nardi. (2006). Entrepreneurship, Frictions and Wealth. *Journal of Political Economy*, vol. 114(5).
- Cameron, S. V., and J.J. Heckman. (1998). Life cycle schooling and dynamic selection bias: Models and evidence for five cohorts. NBER Working Paper No. w6385. NBER: Cambridge, MA.
- Cameron, S. V., and J.J. Heckman. (1999). Can tuition policy combat rising wage inequality? In: M.H. Koster, ed., *Financing college tuition: Government policies and educational priorities*. AEIPress: Washington D.C.
- Cameron, S. V., and J.J. Heckman. (2001). The dynamics of educational attainment for black, hispanic, and white males. *Journal of Political Economy*, 109(3): 455-499.

- Carneiro, P., and J. J. Heckman. (2002). The evidence on credit constraints in post-secondary schooling. *The Economic Journal*, 112(482): 705-734.
- Carree, M.A. and A.R. Thurik. (2010). The impact of entrepreneurship on economic growth. In *Handbook of Entrepreneurship Research*, D.B. Audretsch and Z.J. Acs (eds), (Springer Verlag, Berlin, Heidelberg), 557-594.
- Cavallo, E.A, M. Pedemonte, A. Powell and P.Tavella. (2013). A New Taxonomy of Sudden Stops: Which Sudden Stops Should Countries Be Most Concerned About? Inter-American Development Bank Working Paper 430, Inter-American Development Bank, Washington D.C.
- Chi, M. (2014). What does it mean to be middle class in Malaysia? Malay Mail Online, September 15, 2014. Available at: <http://www.themalaymailonline.com/malaysia/article/what-does-it-mean-to-be-middle-class-in-malaysia>
- Cingano, F. (2014). Trends in Income Inequality and its Impact on Economic Growth, *OECD Social, Employment and Migration Working Papers*, No. 163, OECD Publishing.
- Claessens, S., S. Djankov, and L.H.P. Lang. (2000). The separation of ownership and control in East Asian corporations. *Journal of Finance and Economics*, 58, 81-112. [http://dx.doi.org/10.1016/S0304-405X\(00\)00067-2](http://dx.doi.org/10.1016/S0304-405X(00)00067-2)
- Claessens, S., M. A. Kose and M. E. Terrones. (2011). Financial Cycles: What? How? When? IMF Working Paper 11/76, International Monetary Fund.
- Contessi, S., P. De Pace, and M. Guidolin. 2013. How Did the Financial Crisis Alter the Correlations of U.S. Yield Spreads? Federal Reserve Bank of St. Louis Working Paper 2013-005A.
- Crespo-Cuaresma, J., S. Klasen, and K.M. Wacker. (2013). Why We Don't See Poverty Convergence: The Role of Macroeconomic Volatility. *Courant Research Centre Discussion Paper* 153.
- Daly, M., and D. Wilson. (2006). Keeping Up with the Joneses and Staying Ahead of the Smiths: Evidence from Suicide Data. Working Paper 2006-12. Federal Reserve Bank of San Francisco (April).
- Dang, H. and P. Lanjouw. (2014). Welfare Dynamics Measurement: Two Definitions of a Vulnerability Line and Their Empirical Application. World Bank Policy Research Working Paper, World Bank, No. 6944.
- de Mel, S., D. McKenzie and C. Woodruff. 2012. Business training and female enterprise start-up, growth, and dynamics: experimental evidence from Sri Lanka. Policy Research Working Paper Series 6145, The World Bank.
- de Mel, S., D. McKenzie and C. Woodruff. (2013). The Demand for, and Consequences of, Formalization among Informal Firms in Sri Lanka. *American Economic Journal: Applied Economics*, American Economic Association, vol. 5(2), pages 122-50, April.
- Easterlin, R. (1994). Will raising the incomes of all increase the happiness of all? *Journal of Economic Behavior and Organization*, vol. 27, 35-47.
- Easterly, William. (2001). The Middle Class Consensus and Economic Development. *Journal of Economic Growth*, 6, no. 4, (December 2001): 317-336.
- Employees Provident Fund of Malaysia. (2013). Annual Report. Available at: <http://www.kwsp.gov.my/portal/en/web/kwsp/annual-report-2013>
- Eurostat/OECD (2007). Eurostat-OECD Manual on Business Demography Statistics, OECD, Paris.
- Fawley, B.W. and C.J. Neely. (2013). Four Stories of Quantitative Easing. *Federal Reserve Bank of St. Louis Review*. January/February 2013: p. 51-88.
- Felipe, J. and G.C. Sipin. (2004). Competitiveness, income distribution and growth in the Philippines: what does the long-run evidence show? Economics and Research Department Working Paper No. 53. Asian Development Bank.
- Ferrer-i-Carbonell, A. (2005). Income and well-being: an empirical analysis of the comparison income effect. *Journal of Public Economics* 89, 997-1019.
- Firdaus, H. A. (1997). Affirmative Action Policy in Malaysia: To Restructure Society, to Eradicate Poverty. Ethnic Studies Report, Vol. XV, No. 2, July 1997.
- Frank, R. (2007). *Falling behind: how rising inequality harms the middle class*. University of California Press: Berkeley, CA.
- Free Malaysia Today (2014). "Retirees' EPF Funds Barely Enough to Last 5 Years." Available at: <http://www.freemalaysiatoday.com/category/nation/2014/09/09/retirees-epf-funds-barely-enough-to-last-5-years/>
- Gollin, D. (2002). Getting Income Shares Right. *Journal of Political Economy*, University of Chicago Press, vol. 110(2), pages 458-474, April.

- Guerriero, M. (2012). The Labour Share of Income around the World. Evidence from a Panel Dataset. Development Economics and Public Policy Working Paper No. 32/2012.
- Harsanyi, J. (1955). Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility. *Journal of Political Economy*, University of Chicago Press, vol. 63, pages 309.
- Heckman, J.J. (2006). Skill Formation and the Economics of Investing in Disadvantaged Children. *Science* 312: 1900-1902.
- Heckman, J.J. and D.V. Masterov. (2007). The Productivity Argument for Investing in Young Children. NBER Working Papers No. 13016.
- Holger Görg and E. Strobl. (2005). Spillovers from Foreign Firms through Worker Mobility: An Empirical Investigation. *Scandinavian Journal of Economics*, Wiley Blackwell, vol. 107(4), pages 693-709, December.
- Holló, D., M. Kremer, and M. Lo Duca. (2012). CISS –A Composite Indicator of Systemic Stress in the Financial System. *ECB Working Paper* No. 1426.
- Hördahl, P. and F. Packer. (2006). Overview: Markets focus on monetary policy. *BIS Quarterly Review* (September), Bank for International Settlements, pp. 1-14.
- IIF (2014). Capital Flows to Emerging Market Economies. *IIF Research Note*, January 30, Institute of International Finance.
- IMF (2006). Financial Market Update (June). International Monetary Fund: International Capital Markets Department / Global Markets Analysis Division. Online at: <http://www.imf.org/external/pubs/ft/fmu/eng/2006/0606.pdf>
- IMF (2011). International Capital Flows: Reliable or Fickle? In: *World Economic Outlook*, April 2011, Ch. 4.
- IMF (2012). The Liberalization and Management of Capital Flows: An Institutional View. International Monetary Fund.
- Ismail, M.D. 2013. Entrepreneurship education: an insight from Malaysian Polytechnics. *Journal of Chinese Entrepreneurship*, Vol. 5 (2), pp. 144-160.
- Kanbur, R. C. Rhee and J. Zhuang. (2014). Introduction. In *Inequality in Asia and the Pacific: Trends, drivers and policy implications*, eds. Kanbur, R., C. Rhee and J. Zhuang. Asian Development Bank and Routledge, New York.
- Kantis, H.D., J. Federico, L. Trajtenberg (2012). Entrepreneurship, Economic Mobility, and Entrepreneurial Propensity: A Regional View Based on the Analysis of Selected Latin American Countries. Inter-American Development Bank Working Paper Series, No. IDB-WP-315.
- Karabarbounis, L. and B. Neiman. (2013). The Global Decline of the Labor Share. NBER Working Papers 19136, National Bureau of Economic Research, Inc.
- Karlan, D. and M. Valdivia. (2011). Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions. *The Review of Economics and Statistics*, MIT Press, vol. 93(2), pages 510-527, May.
- Kharas, H. (2010). The Emerging Middle Class in Developing Countries. *OECD Development Centre Working Papers*, No. 285, OECD Publishing.
- Khazanah Research Institute (2014). The State of Households. Kuala Lumpur: Khazanah Research Institute.
- Kim, S. and D.Y. Yang. (2009). Do capital inflows matter to asset prices? The case of Korea. *Asian Economic Journal* 23, 323–348.
- Kim, Y.J. and J. Zhang. (2009). Decentralized Borrowing and Centralized Default. *Journal of International Economics*, 88(1): 121-133.
- Kim, S. and D.Y. Yang. (2011). The impact of capital inflows on asset prices in emerging Asian economies: is too much money chasing too little good? *Open Economies Review* 22, 293–315.
- King, E. M., and L. A. Lillard. (1987). Education policy and schooling attainment in Malaysia and the Philippines. *Economics of Education Review* 6(2): 167-181.
- Kolstad, I. and A. Wiig. (2014). Education and entrepreneurial success. *Journal of Small Business Economics*, December 2014. <http://dx.doi.org/10.1007/s11187-014-9621-1>.
- Korinek, A., A. Roitman and C.A. Végh. (2010). Decoupling and Recoupling. *AER*, 100 (2): 393-97.
- Kose, Ayhan M., Eswar S. Prasad, and Marco E. Terrones (2006). How do trade and financial integration affect the relationship between growth and volatility. *Journal of International Economics*. 69(1): 176-202.

- Kuang, O.S. (2008). Capital flows and financial assets in emerging markets: determinants, consequences and challenges for central banks: the Malaysian experience. In: Bank for International Settlements (ed.): *Financial globalisation and emerging market capital flows*, vol. 44, p. 321-339.
- Lathapipat, D. (2013). Explaining socioeconomic differences in educational attainment in Malaysia: A need for higher quality investments in pre-primary and primary education? Background note for the Malaysia Economic Monitor, World Bank, December 2013.
- Lee, H.A. & Muhammed Abdul Khalid. (2014). Degrees of Discrimination: Race and Graduate Hiring in Malaysia. Working Paper.
- Levchenko, A.A. and P. Mauro. (2007). Do Some Forms of Financial Flows Help Protect Against 'Sudden Stops'?" *World Bank Economic Review* 21(3): 389-411.
- Lipset, Seymour M. 1960. *Political Man. The Social Bases of Politics*. New York: Doubleday.
- López-Calva, L. and E. Ortiz-Juarez. (2014). A vulnerability approach to the definition of the middle class. *Journal of Economic Inequality*, Springer, vol. 12(1), pages 23-47, March.
- Malay Mail Online (22 November 2014). "Fuel subsidies could return if oil goes over USD80, deputy minister says." Available at <http://www.themalaymailonline.com/malaysia/article/fuel-subsidies-could-return-if-oil-goes-over-us80-deputy-minister-says>
- Malaysian Reserve. (25 November 2014). "Fuel subsidy to return if crude oil prices soar." Available at: <http://themalaysianreserve.com/main/news/corporate-malaysia/7795-fuel-subsidy-to-return-if-crude-oil-prices-soar>
- Marx, I. and K. van den Bosch. (2007). On Poverty Measurement in an Enlarged EU context: conventional and alternative approaches. CEIES Proceedings 34, Luxembourg: Eurostat.
- Milanovic, B. and S. Yitzhaki. (2002). Decomposing World Income Distribution: Does the World Have a Middle Class? *Review of Income and Wealth*, International Association for Research in Income and Wealth, vol. 48(2), pages 155-78, June.
- Ministry of Higher Education, Malaysia. (2013). Graduate Tracer Study 2012.
- Mishra, P., K. Moriyama, P. N'Diaye, and L. Nguyen. (2014). Impact of Fed Tapering Announcements on Emerging Markets. IMF Working Paper 14/109. International Monetary Fund.
- Muhammed, A.K. (2014). *The Colour of Inequality: Ethnicity, Class, Income and Wealth in Malaysia*. MPH Group Publishing, August 2014.
- Nasrudin, N. and N. Othman. (2012). Evaluation of Polytechnic Entrepreneurship Programs in Malaysia. *International Journal of Trade, Economics and Finance* vol.3, no.5, pp. 356-362.
- New Straits Times (2014). "Call to work together for growth." 23 October 2014. Available at <http://www.nst.com.my/node/45057>
- Obstfeld, M. (2012). Financial flows, financial crises, and global imbalances. *Journal of International Money and Finance* 31, 469-80.
- OECD (1998). *Employment Outlook*, OECD, Paris.
- OECD (2011). *Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education*. OECD Publishing. <http://dx.doi.org/10.1787/9789264096660-en>
- OECD (2012). *Labour Losing to Capital: What Explains the Declining Labour Share?*, in *OECD Employment Outlook 2012*, OECD Publishing. [http://dx.doi.org/10.1787/empl\\_outlook-2012-4-en](http://dx.doi.org/10.1787/empl_outlook-2012-4-en)
- Ostry, J. and A. Berg. (2011). *Inequality and Unsustainable Growth; Two Sides of the Same Coin?* IMF Staff Discussion Notes 11/08, International Monetary Fund.
- Ostry, J., A. Berg and C. Tsangarides. (2014). *Redistribution, Inequality and Growth*. IMF Staff Discussion Note, 14/02, International Monetary Fund.
- Özden, Ç., C. Parsons, M. Schiff and T. L. Walmsley. (2011). Where on Earth is Everybody? The Evolution of Global Bilateral Migration. *Global Bilateral Migration Database, 1960-2000*. *World Bank Economic Review* 25(1):12-56.
- Paes de Barros, R., F. Ferreira, J. Molinas and J. Saavedra. (2009). *Measuring Inequality of Opportunities in Latin America and the Caribbean*. Washington D.C.: World Bank.
- Quadrini, V. 2000. Entrepreneurship, Saving and Social Mobility. *Review of Economic Dynamics*, Elsevier for the Society for Economic Dynamics, vol. 3(1), pages 1-40, January.

- Ramey, G. and V. A. Ramey. (1995). Cross-Country Evidence on the Link between Volatility and Growth. *American Economic Review* 85(5): 1138-1151.
- Ravaillon, M. (2009). The Developing World's Bulging (but Vulnerable) Middle Class. The World Bank Development Research Group, Policy Research Working Paper 4816.
- Rawls, J. (1972). *A Theory of Justice*. Oxford University Press, Oxford.
- Rey, H. (2013). Dilemma not Trilemma: The global financial cycle and monetary policy independence. Paper presented at the Jackson Hole Symposium, August 2013.
- Schneider, F., A. Buehn and C.E. Montenegro. (2010). New Estimates for the Shadow Economies all over the World. *International Economic Journal*, 24: 4, 443-461.
- Shinkai, J. and M. Enya. (2013). The impact of capital inflows on asset prices in East Asia. Mimeo.
- Solimano, A. (2012). Entrepreneurship, Middle Class Consolidation and Social Mobility in Latin America: Scope and Limits. Mimeo, Inter-American Development Bank, Washington D.C.
- Stock, J.H. and M.W. Watson. (2002). Forecasting Using Principal Components From a Large Number of Predictors. *Journal of the American Statistical Association*, 97: 1167-1179.
- Engelbert Stockhammer. (2012). Rising Inequality as a Root Cause of the Present Crisis. Working Papers wp282, Political Economy Research Institute, University of Massachusetts at Amherst.
- The Star Online. (20 November 2014). "Ahmad Maslan: 1,331 EPF contributors can withdraw over RM1mil each next year." Available at: <http://www.thestar.com.my/News/Nation/2014/11/20/Parliament-Maslan-EPF-RM1mil/>
- The Star Online. (29 November 2014). "PETRONAS cuts capex." Available at: <http://www.thestar.com.my/Business/Business-News/2014/11/29/PETRONAS-cuts-capex-Shamsul-spells-out-the-clear-dangers-of-falling-oil-prices-including-a-cut-in-Pe/?style=biz>
- Tillmann, P. (2013). Capital inflows and asset prices: Evidence from emerging Asia. *Journal of Banking and Finance* 37(3): 717-729.
- Townsend, P. (1979) *Poverty in the United Kingdom*, London, Allen Lane and Penguin Books.
- United Nations Development Programme. (2014). *Malaysia Human Development Report 2013: Redesigning an Inclusive Future*. Kuala Lumpur: United Nations Development Programme, Malaysia.
- United States Department of Commerce (2010). *Middle Class in America*. Economics and Statistics Administration, for the Office of the Vice President of the United States.
- Valerio, A., B. Parton and A. Robb. (2014). *Entrepreneurship Education and Training Programs around the World: Dimensions for Success*. World Bank, Washington D.C.
- Van der Sluis, J., C.M. Van Praag and W. Vijverberg. (2004). *Entrepreneurship selection and performance: A meta-analysis of the impact of education in industrialized countries*. Working Paper 03-046/3, Tinbergen Institute, University of Amsterdam.
- Wacker, K. M. (2013). Liquidity Tsunamis' and Financial Risk in Emerging Economies. Paper presented at the HTW Berlin / DAAD Workshop on 'Exchange Rate Regimes in Developing Countries,' Berlin, June 2013. Online at: [www.user.gwdg.de/~kwacker/DAAD\\_macrocapflow.pdf](http://www.user.gwdg.de/~kwacker/DAAD_macrocapflow.pdf)
- Wacker, K.M., D. Lodge, and G. Nicoletti. (2014). *Measuring Financial Conditions in major Non-Euro Area Economies*. ECB Working Paper 1743, European Central Bank
- World Bank (2011). *Malaysia SME Masterplan*. Unpublished draft.
- World Bank (2012). *Malaysia Economic Monitor: Unlocking Women's Potential*. November 2012.
- World Bank (2013b). *Global Economic Prospects Vol. 7*, June 2013. Washington, D.C.: World Bank.
- World Bank (2014a). *Global Economic Prospects: Shifting Priorities, Building for the Future*. June 2014. Washington, D.C.: World Bank.
- World Bank (2014b). *East Asia and Pacific Economic Update: Enhancing Competitiveness in an Uncertain World*. October 2014, the World Bank Group, Washington D.C.: World Bank.
- World Bank (2014c). *Malaysia Economic Monitor: Boosting Trade Competitiveness*. June 2014.
- World Bank (2014d). *Doing Business 2015: Going Beyond Efficiency*. The World Bank Group, Washington D.C.





[www.worldbank.org/malaysia](http://www.worldbank.org/malaysia)  
Email: [Malaysia@worldbank.org](mailto:Malaysia@worldbank.org)