

# Malaysia Economic Monitor

## High-Performing Education

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**HIGH-PERFORMING EDUCATION**

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## ABBREVIATIONS

ADB	Asian Development Bank
AFC	Asian Financial Crisis
ASEAN	Association of Southeast Asian Nations
BEEP	Bumiputera Economic Empowerment Plan
BET	Bus Express Transit
BNM	Bank Negara Malaysia
BoP	Balance of Payments
BPSH	Bahagian Pengurusan Sekolah Harian (Public School Management Division)
BR1M	Bantuan Rakyat 1 Malaysia (1 Malaysia People's Assistance)
CIP	Corporate Integrity Pledge
CPD	Continuing Professional Development
CPI	Consumer price index
CPO	Crude Palm Oil
DBKL	Dewan Bandaraya Kuala Lumpur (Kuala Lumpur City Hall)
DECPG	Development Economics Prospects Group
DOS	Department of Statistics
E&E	Electrical and Electronics
E&P	Exploration and Production
ECCS	Early Child Comprehensive Systems
EMIS	Education Management Information Systems
EPPs	Entry Point Projects
ESCS	Economic, Social and Cultural Status
ETP	Economic Transformation Programme
EU	European Union
FDI	Foreign Direct Investment
G&S	Goods and Services
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFCF	Gross fixed capital formation
GLC	Government-Linked Company
GNI	Gross National Income
GPS	Gred Purata Sekolah (School Grade Point Average)
GST	Goods and Services Tax
GTP	Government Transformation Programme
HIS	Household Income Survey
HPS	High-performing schools
IB	International Baccalaureate
ICAO	International Civil Aviation Organization
IGCSE	International General Certificate of Secondary Education
ILMIA	Institute for Labor Market Information and Analysis
ILO	International Labour Organization
IMF	International Monetary Fund
IPG	Institut Pendidikan Guru (Institute(s) of Teacher Education)
IPP	Independent Power Producer
IPs	Investigation papers
IPT	Institut Pengajian Tinggi (Institute(s) of Higher Learning)
IT	Information technology
ITE	Institutes of Teacher Education
JPAM	Jabatan Pertahanan Awam Malaysia (Malaysian Civil Defence Department)
JPN	Jabatan Pendaftaran Negara (National Registration Department)
KAR1SMA	Program Kebajikan Rakyat 1 Malaysia (1 Malaysia People's Welfare Programme)
KK1M	Kedai Kain 1 Malaysia (1 Malaysia Textile Store)
KL	Kuala Lumpur
KPLI	Kursus Perguruan Lulusan Ijazah (Post-graduate course in education)
KR1M	Kedai Rakyat 1 Malaysia (1 Malaysia People's Store)
KTM	Keretapi Tanah Melayu (Malayan Railways)
LHS	Left-hand side
LINUS	Literacy and Numeracy Screening
LNG	Liquefied Natural Gas
LNPT	Laporan Nilai Prestasi Tahunan (Annual Performance Report)
LRT	Light Rail Transit
MA	Moving average
MACC	Malaysia Anti-Corruption Commission
MBS	Modified Budgeting System
MIDA	Malaysia Industrial Development Authority

MIT	Massachusetts Institute of Technology
MoE	Ministry of Education
MOF	Ministry of Finance
MOHR	Ministry of Human Resources
MoWFCD	Ministry of Women, Families and Community Development
MRTM	Menu Rakyat 1 Malaysia (1 Malaysia People's Menu)
MRT	Mass Rapid Transit
MyCC	Malaysia Competition Commission
NA	North Asia/Not Available
NBER	National Bureau of Economic Research
NCLB	No Child Left Behind
NEM	New Economic Model
NEP	New Economic Policy
NESDB	National Economic and Social Development Board (Thailand)
NFPE	Non-Financial Public Enterprise
NGO	Non-Governmental Organization
NKEA	National Key Economic Areas
NKRA	National Key Results Area
OECD	Organization for Economic Cooperation and Development
OPR	Overnight Policy Rate
PCE	Private Consumption Expenditure
PDRM	Polis Di-Raja Malaysia (Royal Malaysian Police)
PEMANDU	Performance Management and Delivery Unit
PEMUDAH	Special Taskforce to Facilitate Business
PIBG	Persatuan Ibu Bapa dan Guru (Parent-Teacher Association)
PISA	Programme for International Student Assessment
PISMP	Program Ijazah Sarjana Muda Perguruan (Bachelor in Education Programme)
PITA	Petroleum Income Tax Act
PLCs	Publicly-Listed Company
PMI	Purchasing Managers' Index
PMR	Penilaian Menengah Rendah (Lower Secondary Assessment)
PPD	Pejabat Pelajaran Daerah (District Education Office)
PPP	Purchasing Power Parity/ Public-Private Partnership
PR1MA	Perumahan Rakyat 1Malaysia (1Malaysia People's Housing)
Q/Q	Quarter-on-quarter
REER	Real Effective Exchange Rate
RELA	Pasukan Sukarelawan Malaysia (Malaysia Volunteer Corps)
RHS	Right-hand side
RM	Ringgit Malaysia
SAAR	Seasonally-adjusted annualized rate
SBM	School-based management
SBPA	Sistem Saraan Baru Perkhidmatan Awam (New Civil Service Remuneration Scheme)
SDA	Standards Development Agencies
SES	Socio-economic Status
SIP	School Improvement Programme
SISC	School Improvement Specialist Coach
SJKC/T	Sekolah Jenis Kebangsaan (Cina/Tamil) (National-Type Schools (Chinese/ Indian))
SKM	Sekolah Kurang Murid (Under-enrolled school)
SK	Sekolah Kebangsaan (National school)
SME	Small and Medium-Size Enterprise
SPM	Sijil Pelajaran Malaysia (Malaysian Certificate of Education)
SRI	Strategic Reform Initiatives
TALIS	Teaching and Learning International Survey
TFM	Teach for Malaysia
TI	Transparency International
TIMSS	Trends in International Mathematics and Science Study
UIS	UNESCO Institute for Statistics
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPSR	Ujian Penilaian Sekolah Rendah (Primary School Achievement Test)
UPT	Urban Public Transport
US	United States
USD	US dollar
WCGS	Working Capital Guarantee Scheme
WDI	World Development Indicators
y-o-y	Year-on-year

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## EXECUTIVE SUMMARY

### RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

**Malaysia's economy regained momentum but yearly growth is set to decelerate in 2013.** GDP growth recovered from a soft patch in the first quarter and the economy expanded an average of 6.3 percent in the six months to September. Private consumption was the main driver, advancing 10.7 percent in the period. E&E exports gained in the third quarter after 11 quarters of declines, but exports, as well as inventory investment, will be a larger drag on growth in 2013 compared to 2012. As a result, growth is expected to moderate from 5.6 percent in 2012 to 4.5 percent in 2013 despite a stable contribution from fixed investments and buoyant final consumption.

**Export recovery into 2014 is expected to offset slower domestic demand and lead to a pick-up in growth.** The outlook for 2014 and 2015 will benefit from a firmer recovery in the global economy, but domestic demand will be subject to headwinds: (1) subsidy cuts and tax hikes in pursuit of fiscal consolidation; (2) a combination of weaker exchange rates and higher interest rates as global monetary conditions normalize; and (3) the resulting pressures on household budgets. Given Malaysia's export-oriented economy, better export growth outweighs domestic factors and GDP growth is expected to accelerate to 4.8 and 4.9 percent in 2014 and 2015, respectively.

**Fiscal consolidation is picking up pace with subsidy cuts, sin tax increases and less generous public service bonuses.** Helped by revenues from asset sales, the Government will likely meet its deficit target of 4.0 percent of GDP in 2013 despite significant overspending in subsidies. Since September, a number of measures have been announced to boost public finances, most notably the announcement of GST in 2015. As a result, the deficit and debt ratios are expected to continue to decline.

**Less abundant global liquidity may pressure interest and exchange rates.** Without large external financing needs, outflows are unlikely to cause a liquidity crisis in Malaysia. They may however bring higher interest rates (foreigners held 28 percent of government bonds as of September) and a weaker currency (the ringgit depreciated by 8.5 percent between May and August). Depreciation may be a net positive if it helps exports more than it hurts domestic demand.

**Tight labor markets and cash transfers will support consumption.** Employment growth has been rapid (10 percent through September) while wages have also moved higher, at least in the manufacturing sector. The full implementation of the minimum wage in January 2014 will provide an additional boost to households, as will increased cash transfers that are part of the government's strategy for subsidy rationalization and modernizing social protection.

**Muted inflation has allowed BNM to stay on hold.** Benign supply-side conditions meant that the first round of fuel subsidy cuts had only a modest impact on inflation, which averaged 2.2 percent in the third quarter. Low inflation, moderation in credit growth (partly due to BNM's macro-prudential measures), and now the need to facilitate the transition from domestic to external growth engines has led the Central Bank to keep policy rates on hold.

**The turnaround in exports in the third quarter helped the current account balance bounce back.** Taper-induced volatility brought attention to the rapidly-falling current account surplus, which reached 1.1 percent of GDP in the second quarter, the lowest level in 15 years. This trend has been due almost equally to higher imports resulting from strong domestic demand and to weak export performance. As exports improved in the third quarter, the current account moved to a surplus of 4.0 percent of GDP, a level expected to be maintained in 2014.

**Risks to the outlook are external...** The global recovery cannot be taken for granted as removing exceptional monetary accommodation in advanced economies will be a delicate balancing act.

**... but also include Malaysia's ability to leverage improved external conditions.** Export market share for high-tech products that are likely to experience the greatest boost from the global recovery has lagged. Malaysia has taken advantage of low interest rates and high commodity prices to invest in productive capacity, but more than half of recent investments have been in resource-related industries. Going forward, the sustainability of the export recovery will require investments across sectors. Building human capital through improving the quality of education will allow future investments to leverage on human assets in addition to natural resources.

## HIGH-PERFORMING EDUCATION

**Malaysia performs very well with respect to access to education.** Enrolments at primary and lower secondary levels are nearly universal and recent gains in pre-primary education have been noteworthy. Moreover, the system also succeeded in ensuring access is reasonably equitable across rural and urban areas, ethnic groups, and children of different socio-economic levels.

**However, the quality of education has not kept pace.** Among East Asian countries that participated in the 2012 PISA, Malaysian students only outperform their Indonesian peers, and lag even lower-income countries (including, by a wide margin, Vietnam).

**Performance also appears to be declining.** Although the latest PISA scores showed improvement in Math, most other recent indicators point in the opposite direction: scores in the 2011 TIMSS were significantly lower than those in 2003 and 2007 for both Math and Science, and Science and Reading scores fell in the 2012 PISA compared to 2010. Evidence also suggests that English proficiency has deteriorated over time.

**Spending on education is adequate and does not appear to be a key constraint.** Expenditure on basic education is more than double that of other ASEAN countries and the decline in learning outcomes occurred while inputs to education were expanding and the size of the student population was falling.

**The key constraints to improving the quality of basic education thus relate not to the quantity of inputs but institutions:** (1) highly restricted levels of autonomy, (2) low parental involvement and therefore, accountability; and (3) shortcomings in teacher recruitment and performance management.

**Malaysia's education system is among the most centralized in the world.** Autonomy allows for greater responsiveness to local needs as well as stronger ownership of performance by teachers, administrators, parents and students. Most countries whose students perform well on international tests accordingly confer substantial autonomy to local authorities and schools: for example, over 65 percent of schools in Malaysia report that the selection of teachers for hiring takes place at the national level, compared to just over 5 percent in South Korea. The picture is similar in the area of budget allocations within schools, establishment of student disciplinary

practices and student assessment policies, and choice of textbooks.

**Autonomy needs to be balanced by accountability.** Decentralized decision-making is only beneficial to the extent parents and communities are informed and involved in demanding performance from schools. At present, publicly available information on school performance is fragmented. Parent feedback loops and bottom-up pressure to attune and enhance education service delivery are important drivers of systemic improvement.

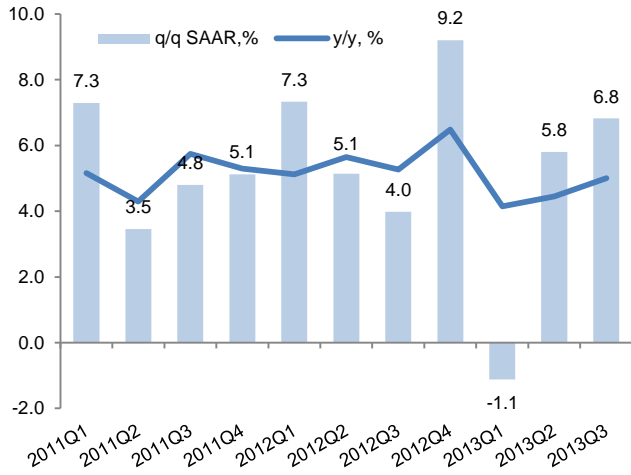
**Teacher numbers are ample, but there are significant concerns about teacher quality.** Teacher numbers have increased even as enrolment has been declining, while teacher pay is not especially low at 1.1 times GDP per capita for seasoned teachers (OECD average: 1.2 times). Yet 46 percent of principals report a lack of qualified teaching staff as a constraint, and MOE admits that in recent years some candidates enrolling in teacher training institutions did not meet minimum requirements of academic achievement at the secondary level.

**Lifting these constraints entails refining some of the measures recommended in the Education Blueprint.** Many welcome initiatives in the Blueprint can be further refined to ensure that Malaysia achieves a high-performing education system: **(1) Moving towards school-based decision-making:** Spell out the transformed roles and responsibilities of the federal government, school districts and schools with respect to hiring teachers and determining salaries; formulating and allocating the school budget; and choosing the curriculum. **(2) Improving parental involvement and enhancing accountability:** systematically provide school-level information on performance, and on the use of human, financial and physical resources to allow stakeholders to hold school management and local leadership accountable for delivering a quality education. **(3) Improving incentives and recruitment for teachers:** Proposed measures for attracting new qualified teacher recruits and promoting professional development and career management are a step in the right direction. A remaining challenge is the delicate yet crucial issue of addressing sustained low performance, something of particular importance given Malaysia's large and young teaching force. The Government may consider piloting fixed contract recruitments with tenure contingent on performance, and tying retraining and up-skilling efforts with certification.

# THE MALAYSIAN ECONOMY IN PICTURES

## The economy recovered from a soft patch in early 2013...

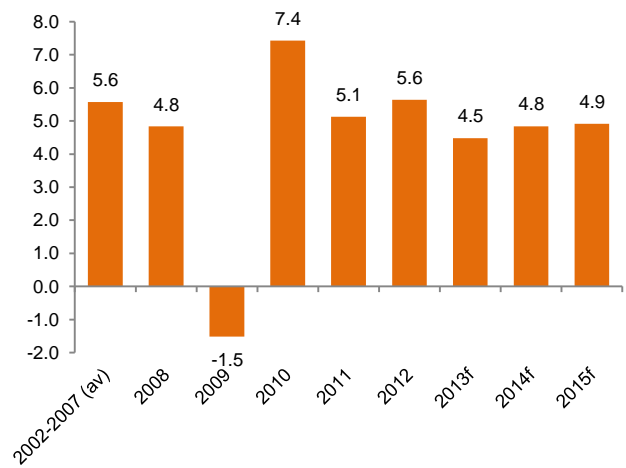
Real GDP, seasonally adjusted, annualized change from last quarter, percent



Source: DOS.

## ... but growth will moderate before picking up in 2014

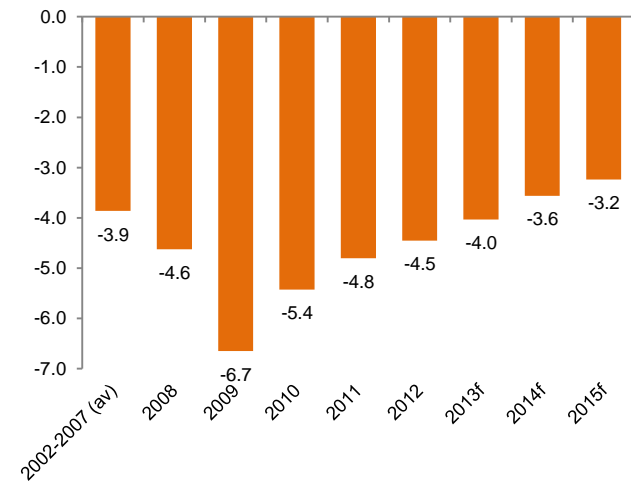
Change from the previous year, percent



Source: DOS, World Bank staff projections.

## Fiscal consolidation will be a drag on domestic demand...

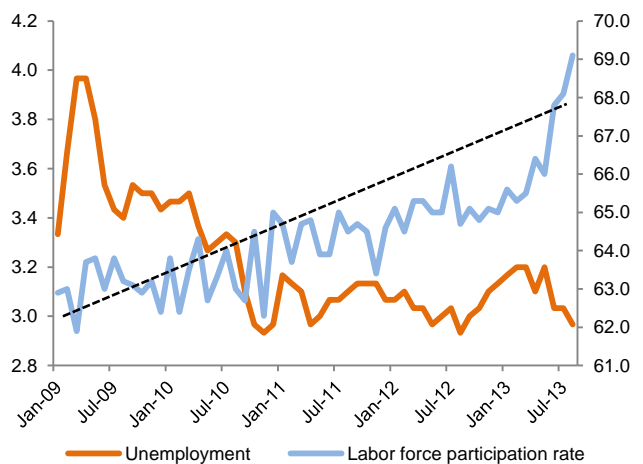
Federal government balance, percent of GDP



Source: MOF, World Bank staff projections.

## ... but tight labor markets are supportive of consumption

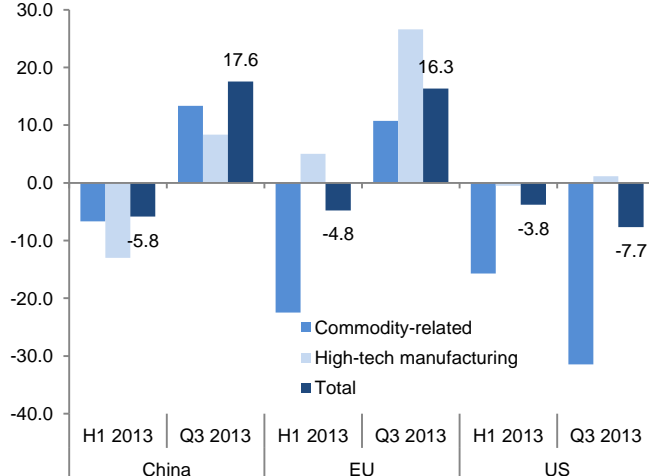
Unemployment rate (LHS); Labor Force Participation (RHS), percent



Source: DOS.

## Export growth halted the narrowing of the current account...

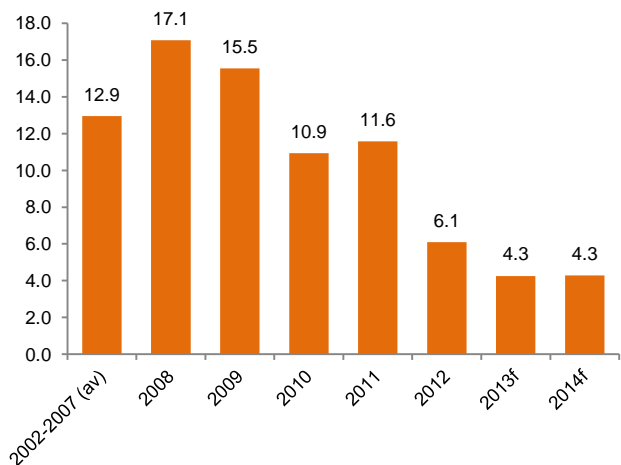
Malaysian exports by destination, change from the previous year; percent



Source: DOS, World Bank staff calculations.

## ... which is now expected to stabilize

Current account balance, percent of GDP

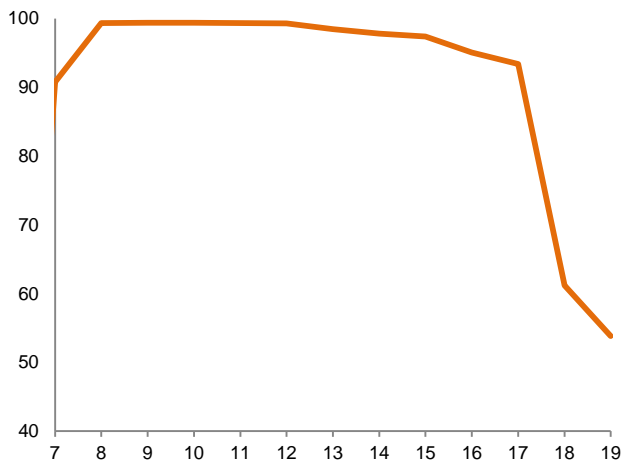


Source: DOS, World Bank staff projections.

# HIGH-PERFORMING EDUCATION IN PICTURES

## Nearly all young Malaysians are in school until age 17

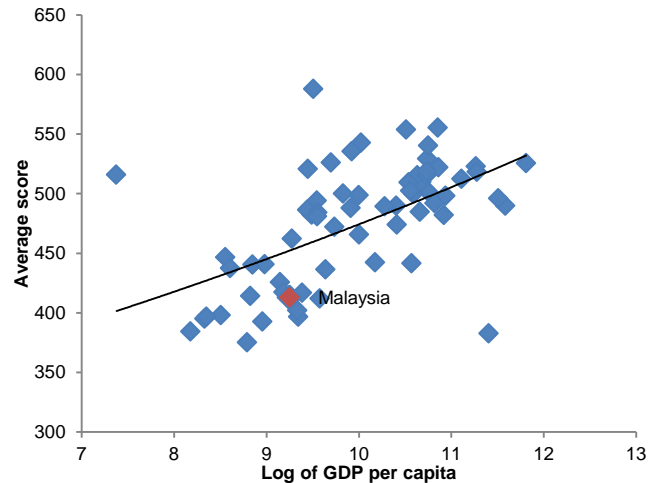
Net enrolment rates by age (2012), percent



Source: DOS (HIS 2012), World Bank staff calculations

## Quality is the key challenge...

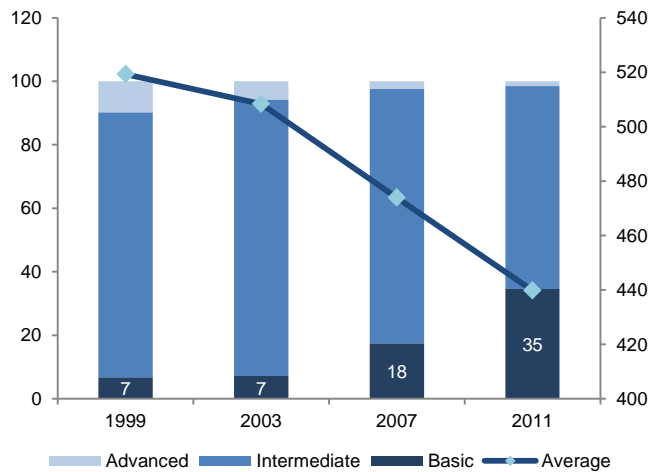
Average of science, mathematics and reading PISA 2012 test scores



Source: PISA 2012, WDI, World Bank staff calculations

## ... and performance has generally declined

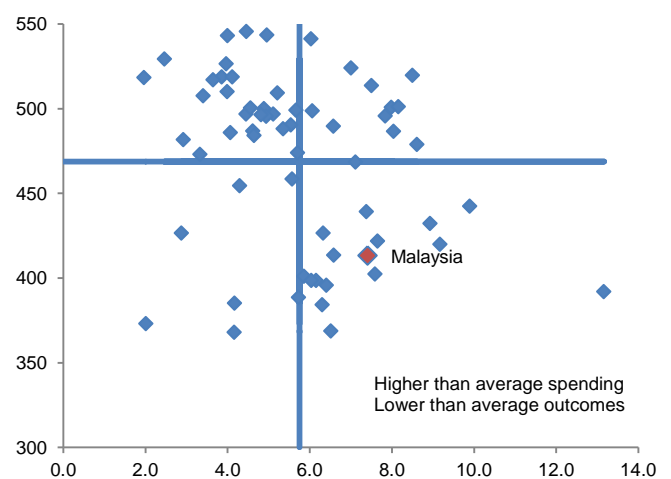
TIMSS mathematics: percent at each level (left axis); mean score (right axis)



Source: TIMSS

## Lack of resources is not the constraint

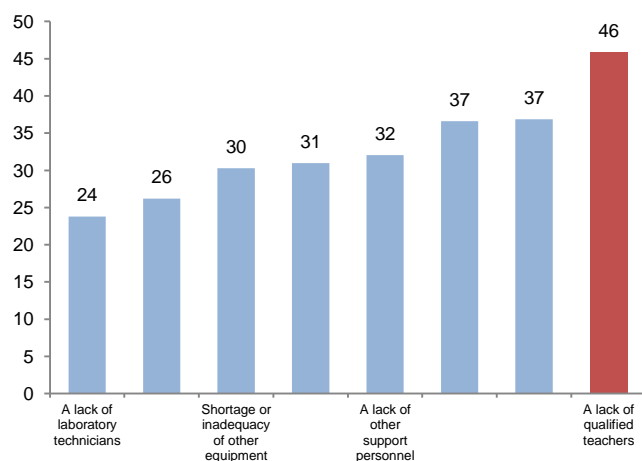
PISA 2009 scores (y-axis); Education expenditure as a share of GDP (x-axis)



Source: PISA 2009, WDI, World Bank staff calculations

## Many teachers, but not enough are well-qualified

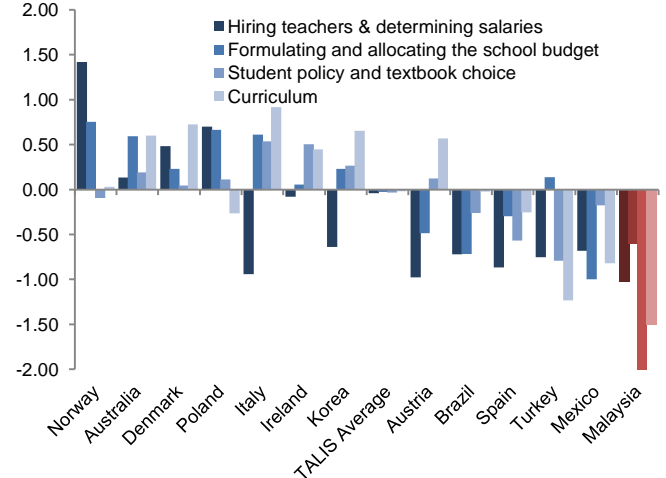
Resource issues that hinder instruction 'a lot' or 'to some extent', percent



Source: TALIS

## The system is highly centralized

Index of school-level autonomy (larger numbers imply more autonomy)



Source: TALIS

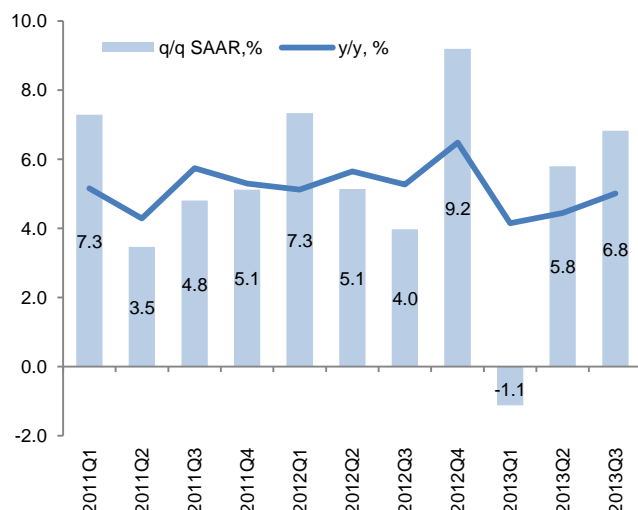
# 1. RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

## Growth picked up from a soft start to the year but remains below 2012 levels

**1. The Malaysian economy recovered from a soft patch in early 2013 with growth accelerating between the second and third quarters of the year.** On a sequential basis, GDP expanded at a quarter-on-quarter, annualized rate (Q/Q. SAAR) of 6.8 percent over the previous quarter, up from 5.8 percent in the second quarter and a contraction of 1.1 percent in the first quarter (Figure 1)<sup>1</sup> This left real GDP higher by 5.0 percent in the third quarter of 2013 from the same period in 2012, with growth for the first nine months of the year at 4.5 percent (2012: +5.3 percent). Growth over the past two quarters came in lower than previous forecasts mainly due to a more negative contribution from inventories and exports, while consumption performed better than expected and import growth lagged. As a result, GDP growth is now expected to moderate from 5.6 percent in 2012 to 4.5 percent in 2013 (previous 2013 forecast: +5.1 percent).

**Figure 1. A solid recovery in the second and third quarters from soft patch early in the year...**

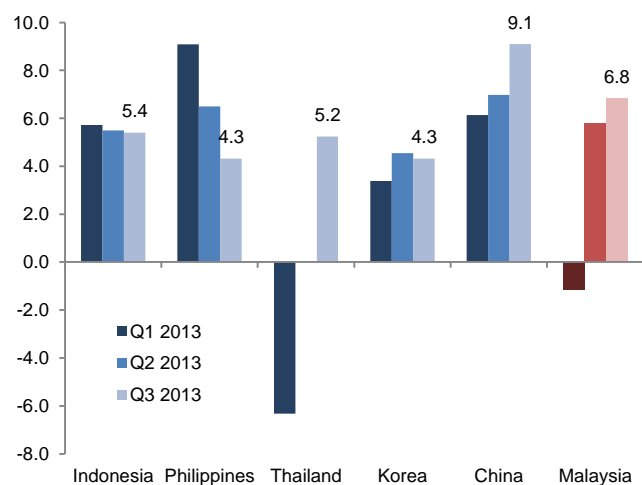
GDP adjusted for inflation and seasonal fluctuations, change from the previous quarter, annualized (bars), and from the previous year (line), percent



Source: Department of Statistics (DOS).

**Figure 2. ... a pattern seen in many other regional economies**

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



Source: World Bank (2013b) and CEIC.

Note: Figures may not add up due to rounding.

**2. Growth was driven by robust expansion in private sector consumption and green shoots in external demand, reflected in large contributions from the services and manufacturing sectors.** Sectors catering to domestic demand<sup>2</sup>, especially services, contributed 3.1 percentage points to total GDP growth (Q2: +2.6 pp)<sup>3</sup>. Within services, the largest contributions came from government services (+0.7pp), retail trade (+0.5pp) and real estate and business services (+0.4pp). Net exports contributed positively to growth for the first time in two years in the third quarter, supporting growth in the manufacturing sector, which contributed another 1.0 percentage point to GDP growth (Q2: +0.9pp; Q1: +0.1pp). Across East Asia, the performance of the Malaysian economy followed a pattern seen in most other regional economies where a weak first quarter was followed by sequential improvements (see Figure 2). Notable exceptions were Indonesia and the Philippines, where growth decelerated throughout the year.

<sup>1</sup> Unless stated otherwise, quarter-on-quarter headline GDP figures are calculated based on the seasonally adjusted series provided by DOS.

<sup>2</sup> In this report, export-oriented industries include palm oil, rubber, petrochemicals, mining and quarrying, electrical and electronics manufacturing, accommodation, and transport and storage. All other industries are considered domestically-oriented. This definition differs somewhat from BNM's definition of export-oriented manufacturing industries, as BNM includes wood and textile manufacturing among external industries. See Box 1 of World Bank November 2012 for a discussion of value-added.

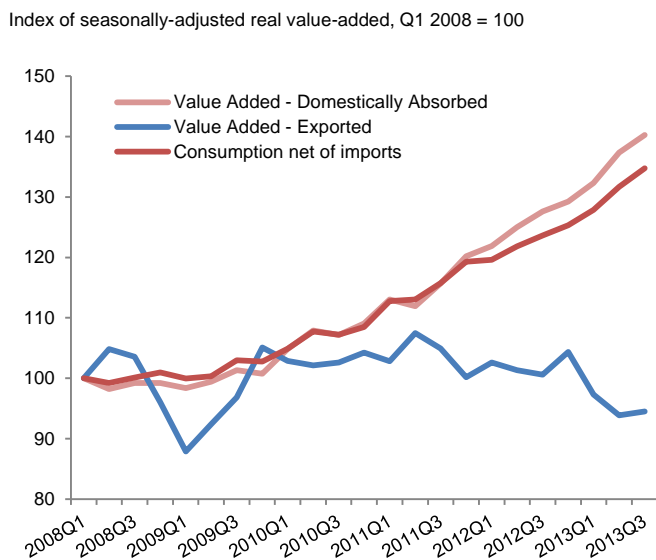
<sup>3</sup> Services excluding utilities.

## Domestic demand remains the main driver of growth

**3. Domestic demand, especially private consumption, remained the engine of growth.** Most components of domestic demand registered positive growth and the contribution of domestic demand (GDP less net exports) to year-on-year GDP growth remained high at 4.9 percentage points in the third quarter (Q2: +7.8pp) despite a large negative contribution from inventories (Q3: -2.6 pp; Q2: +1.0pp) that is likely a result of unwinding previous inventory accumulation, in part to meet better-than-expected export demand. The value-added produced in Malaysia and absorbed domestically (a measure of domestic demand excluding leakages to imports of consumer and capital goods) is estimated to have expanded by 10 percent year-on-year and contributed 6.9 percentage points to growth in the second and third quarters (Figure 3).

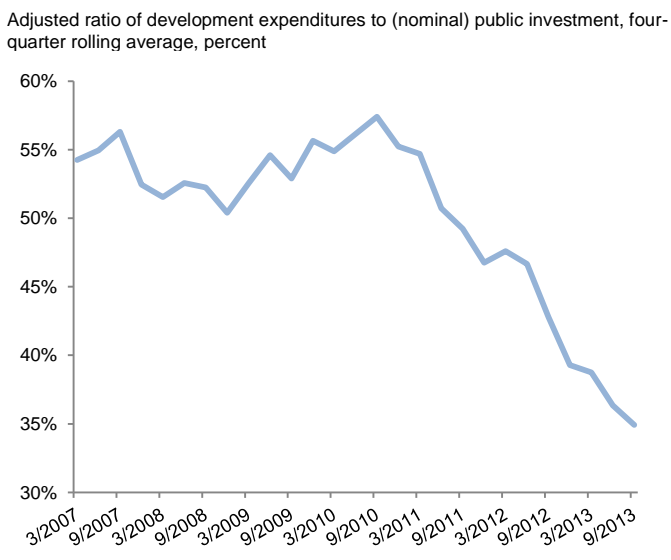
**4. Strong household consumption was the key driver of domestic demand.** In spite of softer commodities prices (and attendant implications for smallholder households) and the fuel subsidy rationalization implemented in September, household consumption picked up further in the third quarter of 2013, bolstered by the Hari Raya celebrations in August along with the associated 'special financial assistance' to civil servants. Amidst weaker public spending and steady private investments, private consumption was the main engine of domestic demand and GDP growth in the third quarter, expanding by 8.2 percent from the previous year (11.2 percent SAAR from the previous quarter) and contributing 4.3 percentage points to overall GDP growth (Q2: 3.6pp). On the other hand, public consumption contracted by 17.5 percent in sequential terms in the third quarter after jumping 51 percent in the second quarter of 2013 (SAAR), driven in part by savings from the fuel subsidies reduction (estimated at RM1.1bn) as well as slower growth in supplies and services expenditure.

**Figure 3. Consumption has been a key driver of growth in domestic demand**



Source: CEIC and World Bank staff calculations.  
Note: See Box 1 of World Bank (2012) for an explanation of the estimates of value-added exported and absorbed domestically. Consumption net of imports of consumer goods.

**Figure 4. The share of development expenditures in public investments appears to have declined**



Source: CEIC and World Bank staff calculations.  
Note: Assumes 85 percent of development expenditures are included in public investments.

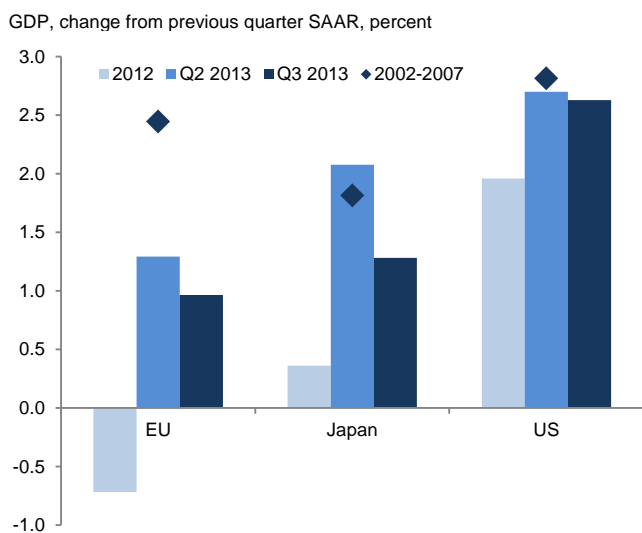
**5. The investment boom observed since late 2011 continued, driven by the private sector.** Public investment contracted in the previous two quarters (Q2: -6.4 percent; Q3: -1.3 percent, y-o-y) on slower disbursements by Non-Financial Public Enterprises (NFPEs). With the apparent decline in the share of Federal Government development expenditures in public investment (Figure 4) the dynamics of public investment growth have been dominated by NFPE activity, especially PETRONAS. Since many NFPE projects are now underway and some have been completed (such as the LNG regasification terminal in Malacca or the first phase of Telekom's high-speed broadband roll-out), tapering of NFPE investment growth was expected. Meanwhile, private gross fixed capital formation (GFCF) expanded by 15.2 percent in real terms in the third quarter of 2013 and contributed 2.5 percentage points to GDP growth, resulting in overall GFCF growth of 8.6 percent in the third quarter and in an investment-to-GDP ratio of 27.0

percent (4-quarter rolling average, nominal terms). The expansion was mainly supported by sustained momentum in construction activity, which grew by 10.1 percent from the previous year. Selected Issue Note B in Chapter 2 presents a more in-depth look at Malaysia's recent investment boom.

## Green shoots in exports as the external environment improves

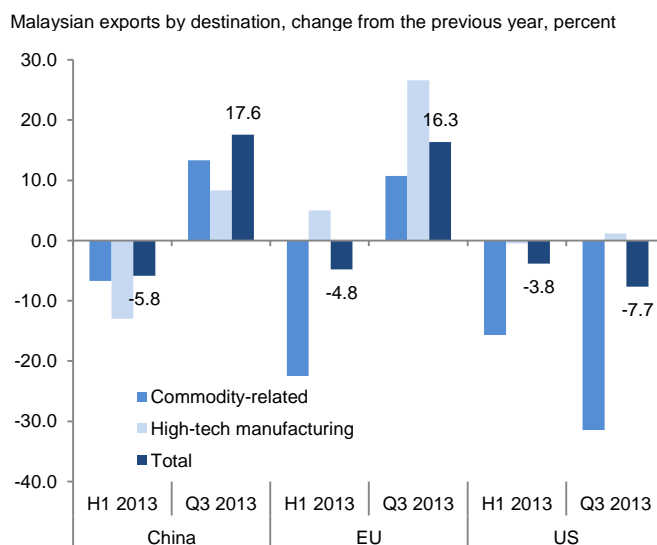
**6. For the first time in three years, all major advanced economies expanded for two consecutive quarters.** Growth in advanced economies remains modest and risks to macroeconomic stability have not disappeared, but there appears to be greater confidence in the recovery. This is especially true of the US, which has posted more consistent growth rates. The Euro area emerged from an 18-month recession. Although periphery countries still face significant challenges of continuing on a path of fiscal consolidation amid persistently high unemployment, risks of a disorderly outcome appear to have waned. Meanwhile, the expansionary fiscal and monetary policies of the new Japanese government seem to be having some effect (Figure 5).

**Figure 5. Recovery in advanced economies continued...**



Source: CEIC and World Bank staff calculations.

**Figure 6. ...supporting higher exports of high-tech goods**



Source: CEIC and World Bank staff calculations.

Notes: 1. EU breakdown by commodity type approximated by exports to France, Germany, Netherlands and UK.

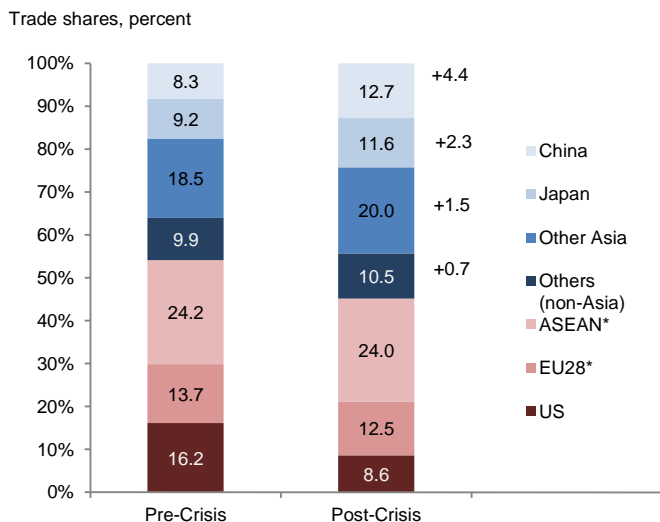
2. "Commodity-related" includes food and live animals; beverages and tobacco; inedible crude materials; mineral fuels; animal and vegetable fats and oils; and chemicals. High-tech is proxied by machinery and transport equipment.

**7. Though emerging economies as a group slowed mid-year, China's growth accelerated and provided further support to Malaysia's exports.** Emerging economies slowed down in the first half of 2013, initially dragged by the soft patch in China in the first quarter and later by volatility induced by talk that the US Fed may begin "tapering" its accommodative monetary policy, which hit large economies such as India and Indonesia. As a result of this uneven performance, import demand globally contracted at a 3.2 percent annualized pace in the three months to August, driven by lower imports from developing countries. Nevertheless, among emerging economies, Malaysia's export performance is most closely tied to China, where improved growth prospects were reflected in improved export performance (Figure 6). China has emerged as Malaysia's main trade partner since the global financial crisis and is a major source of demand for commodity-related exports (Figure 7).

**8. These developments led to an overall improvement in demand conditions for Malaysia's exports.** In addition to the pick-up in exports to China, exports to the EU expanded by 16.3 percent in the third quarter (year-on-year; -3.3 percent in Q2). Exports to the US contracted in the second and third quarters, but this was driven by declining commodity exports (especially palm oil), whereas exports of machinery and transport equipment (which includes electrical and electronic products, E&E) expanded, albeit modestly (Figure 6). The US and EU still account for a significant share of demand for Malaysian exports (Figure 7), especially when taking into account trade within global

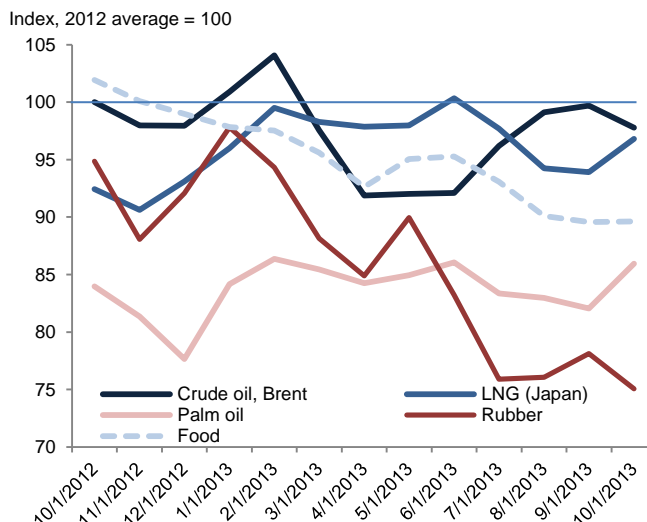
value chains, and this demand is concentrated in E&E. Therefore, the improved conditions in advanced economies are likely to be linked to the improvement observed in exports of E&E products: after contracting for 11 consecutive quarters, E&E exports expanded by 5.3 percent in the third quarter of 2013.

**Figure 7. China has emerged as Malaysia's largest trading partner after the crisis**



Source: CEIC and World Bank staff calculations.

**Figure 8. Commodity prices remain below 2012 levels, but energy commodities held up better**



Source: World Bank DECPG.

**9. Helped by improved supply conditions and stable crude oil prices, commodity exports also picked up in the third quarter.** Due to positive supply shocks, prices for Malaysia's main agricultural commodities (palm oil and rubber) remained 15 and 25 percent lower than their average 2012 levels respectively (Figure 8). On the other hand, crude oil prices remained firm and even picked up in the third quarter, driven mainly by fears of a spillover of the Syrian conflict and large output cutbacks by Iraq and Libya. Improved domestic supply conditions were observed across agricultural and energy commodity sectors. Output and exports of oil and gas picked up, while palm oil and rubber exports accelerated in the third quarter in terms of volume by 5.7 and 18.8 percent over a year ago, respectively (average of 2.6 and 2.8 percent in the first half of 2013). Firm crude oil prices, the pickup in production volumes and demand from China helped offset price pressures in the agricultural commodity space and lower demand from the US, leading commodity exports to expand by 7.6 percent in the third quarter (-5.4 percent in the previous quarter).

**10. Overall, Malaysia's exports expanded in the third quarter after four quarters of contraction and net exports made their first positive contribution to growth in two years.** Malaysia's exports of goods and services expanded modestly by 1.7 percent in real terms from the previous year (+1.3 percent in nominal terms), compared to a slowdown of -5.2 percent the second quarter (-6.3 percent in nominal terms). Growth in goods exports was primarily driven by the recovery in commodities exports, while improved demand for E&E exports slowed the overall contraction in non-commodities exports, from -9.2 percent in the second quarter of 2013 compared to the same period in 2012, to -5.7 percent. On a value-added basis, exports expanded by 2.6 percent from the previous year after a decline of 11.5 percent in the previous quarter. Selected Issue Note A in Chapter 2 presents a more in-depth look at the changes in Malaysia's export competitiveness since the Global Financial Crisis.

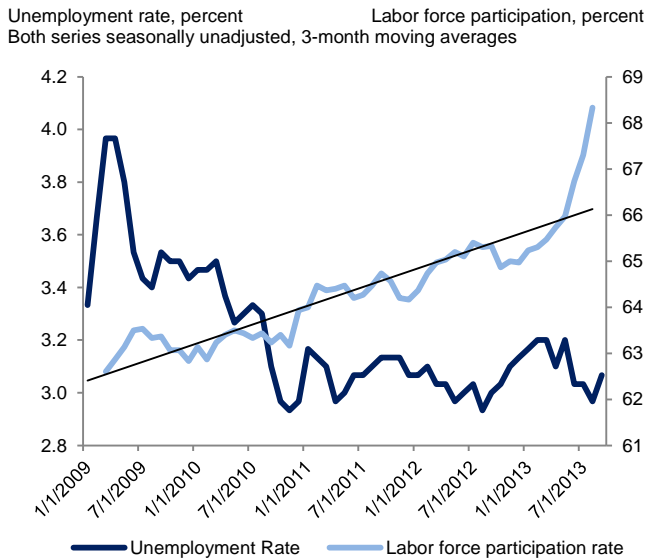
## High employment rates support robust domestic demand

**11. Employment surged, but not in manufacturing.** As of September, the unemployment rate remained stable around 3.1 percent (Figure 9) while the employment rate jumped to 67.5 percent of the working-age population (Sept. 2012: 63.0 percent). This reflected two related trends: first, an increase in the labor force participation rate by 4.5 percentage points to 69.6 percent. Given that the participation rate from men is already high at 80 percent (as of 2011, latest data available), this likely reflects a growing participation rate from women. Second, stable unemployment in the face of rising labor force participation was possible due to robust job growth, with the number of jobs in the economy growing by 10.0 percent in the same time period. These dynamics both contributed to

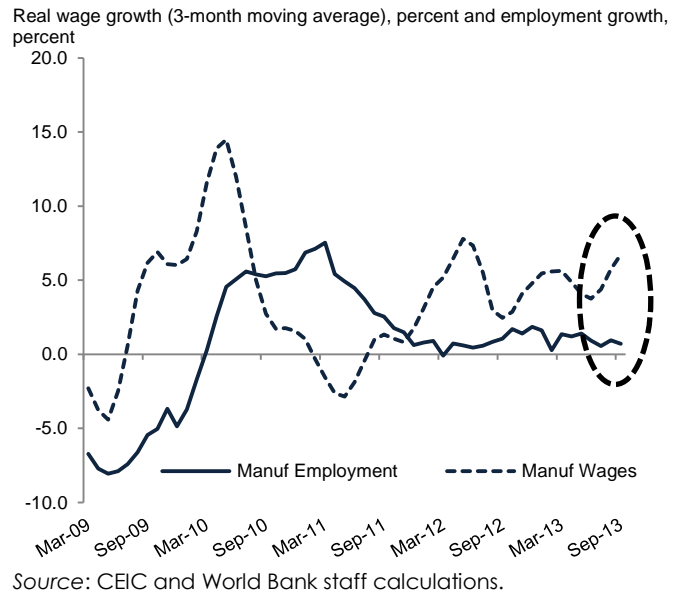


domestic demand growth, but also reflected the dominance of domestically-oriented sectors: manufacturing employment has been stagnant (Figure 10), therefore much of the employment growth most likely must have come from services, in line with its contribution to overall economic growth.

**Figure 9. The unemployment rate is below pre-crisis levels while labor force participation is up sharply**



**Figure 10. Wages are rising amidst declining manufacturing employment**



**12. Wage gains amidst slowing employment in the manufacturing sector may reflect the impact of the minimum wage and higher overall wage levels.** Following a recovery to pre-crisis levels by the end of 2011, manufacturing employment has been growing by less than 3 percent (y-o-y) since August 2011. In 2013, while overall employment expanded by 10.0 percent in September from the previous year, manufacturing employment was up only 0.7 percent in the same period. Growth of employment in the E&E sector has been negative for the past 19 quarters, and most of the growth in manufacturing employment has come from domestically-oriented industries. Slow employment growth in manufacturing has nevertheless been accompanied by a general rise in wages in the sector, including in E&E. This can be partly attributed to the minimum wage implemented since January 2013 (albeit with some exemptions). One hypothesis that cannot be tested at this time given the lack of detailed non-manufacturing wage data is that a tight labor market and the introduction of the minimum wage have led to an increase in wages across sectors, (which would also be consistent with the fast pace of consumption growth), which in turn helped induce the sharp increase in labor force participation rates.

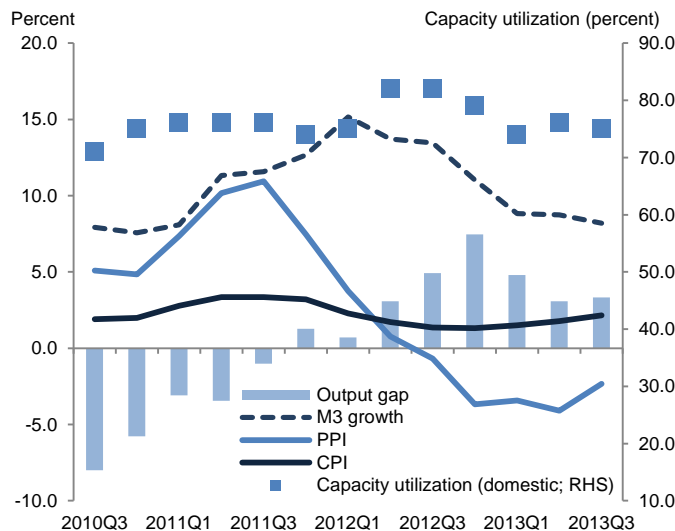
### **Inflation remains subdued as benign supply-side factors dominate**

**13. Against a backdrop of tight labor markets, vigorous domestic demand, and higher energy and tobacco prices from subsidy cuts and tax hikes, inflation picked up only modestly.** Consumer price inflation accelerated from an average of 1.7 percent for the first eight months of 2013 to 2.6 and 2.8 percent in September and October, respectively, driven in large part by the cuts to RON 95 and diesel fuel subsidies, which resulted in RM0.20 hikes in oil prices in September. Prices of alcoholic beverages and tobacco increased by 16 percent in October due to an increase in excise duties on tobacco by 14 percent. Prices of food and non-alcoholic beverages were up by 3.9 percent, but this has been attributed to supply factors. Excluding food, beverages and energy, "core" inflation increased by only 1.0 percent, largely unchanged from the previous month. In fact, estimates of core inflation have hovered between 0.9 and 1.2 percent over the past 15 months. The producer price index, which had been negative for the past sixteen months finally turned positive in October driven mainly by the increase in price of natural gas.

**14. Benign supply conditions (especially declining global food prices) appear to be driving such muted inflation dynamics.** Some pressure from demand-side factors had begun to ease from early 2013 (capacity utilization in domestically-oriented industries and the output gap have come down, and credit growth shows some signs of

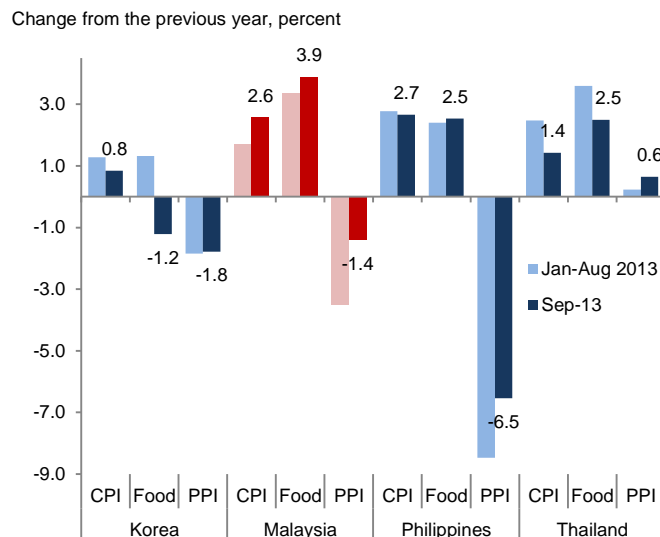
cooling off; Figure 11), but tight labor markets and buoyant consumption growth suggest that low inflation must be driven by supply-side conditions. Supply conditions are reflected in declining food prices (Figure 8) and declining producer prices. Further confirming the favorable externally-driven supply conditions, inflation declined in September in many countries in the region (Figure 12), often helped by lower food prices.

**Figure 11. Softening demand-side pressures complemented benign supply conditions**



Source: CEIC 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.

**Figure 12. Most countries in Southeast Asia experienced lower inflation in 2013**



Source: CEIC and World Bank staff calculations.  
 Note: Food refers to prices of food and non-alcoholic beverages.

## Fiscal and monetary policies still accommodative but shifting to neutral

### The Federal government moves more decisively towards fiscal consolidation

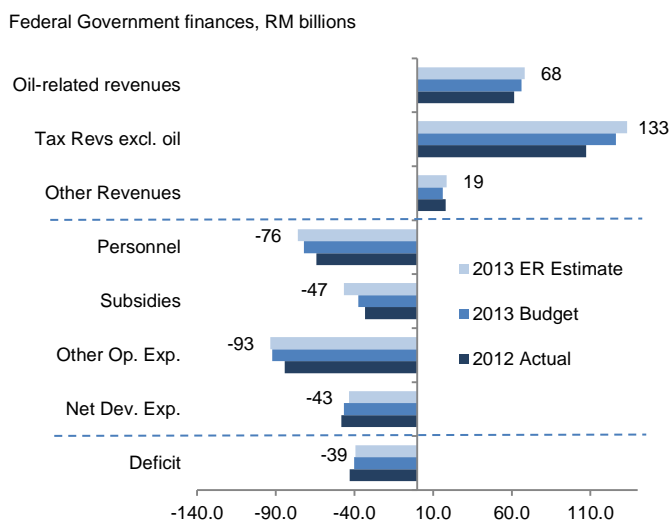
**15. The government is expected to meet its headline deficit target for 2013 as additional non-tax collections offset higher expenditures on subsidies.** Despite estimated operating (current) expenditures exceeding their budgeted 2013 allocations by RM 14.3 billion (7.1 percent) and slightly worse GDP growth compared to the previous year's forecast, the government reaffirmed its headline deficit target for 2013 (4.0 percent of GDP vs. 4.5 percent in 2012). This target will be achieved through additional tax revenues (Figure 13). Of the additional RM11.8 billion in revenues expected to be raised compared to budgeted estimates, RM7.4 billion originated from non-tax sources, including RM1.4 billion of proceeds from asset sales and RM4.2 billion from the securitization of government mortgages. Moreover, the government has also continued to underspend on development expenditure.

**16. Stepped-up efforts in non-oil revenue collection have also contributed significantly to Malaysia's improved fiscal position.** Expected revenue collections exceeded targets by around 4.4 percent this year, with broad-based gains. Oil-related revenues surprised on the upside, primarily due to increased collections from petroleum royalties and licenses, with PETRONAS' dividend contribution and PITA revenues coming in as expected in the budget. Oil-related revenues are expected to account for 30.6 percent of total revenue compared to 33.7 percent in 2012, as the Inland Revenue Board continues to outperform on tax-collection, which exceeded targets by about 4.2 percent. Income taxes demonstrated positive buoyancy<sup>4</sup>, growing at an expected rate of 17 percent compared to 9 percent for nominal GDP. This represents a significant improvement over much of the 2000s, when income tax growth lagged nominal GDP growth. Income taxes are now much closer to their "pre-oil" levels of 9.0 percent of GDP.

<sup>4</sup> Growth rate of income taxes exceeds the growth rate of nominal GDP.

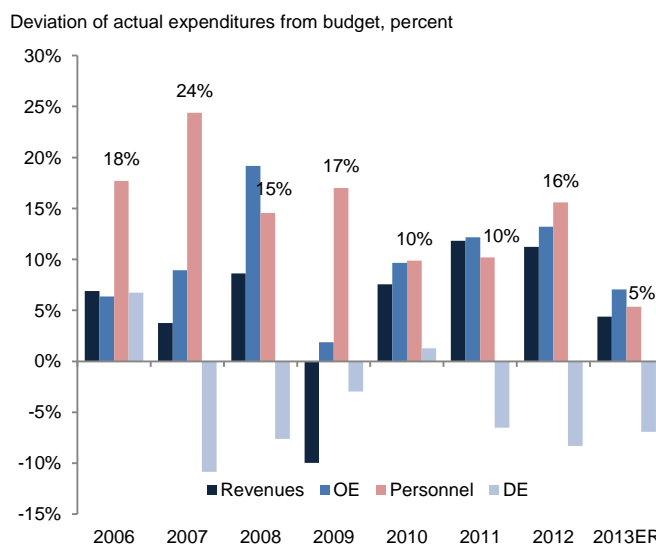
**17. A reduction in the growth of personnel spending partly offset significant slippages in subsidies, resulting in overall deceleration in operating expenditures.** The expansion in current expenditures are estimated to more than halve by a modest 5.2 percent in 2013 compared to 12.6 percent in 2012, with much of the deceleration due to a reduction in personnel spending. After growing an average 11.4 percent per year between 2000 and 2012, emoluments are expected to increase by only 2.7 percent in 2013, the lowest annual growth rate in the past 10 years.<sup>5</sup> Expenditures on emoluments, gratuities and pensions continued to exceed original budget allocations, but this is expected to be at a more modest 5 percent in 2013 compared to an average of 10 percent between 2005 and 2012 (Figure 14). These trends however, belie significant slippages in subsidies. Notwithstanding a slight decline in crude oil prices and the fuel subsidy rationalization in September, which is estimated to have saved the government RM1.1 billion, fuel subsidies are expected to exceed budget allocations by 56 percent.<sup>6,7</sup>

**Figure 13. Strong revenue collection and slower growth in personnel spending contained the deficit**



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

**Figure 14. Deviations from the budget are projected to come in at the lowest levels in recent years**



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

**18. Development expenditure continues to shrink, with broader public sector contributions to investments growth increasingly dependent on NFPEs and government-guaranteed debt.** Development expenditures are expected to come in RM3.2 billion (6.9 percent) under budget, falling for the third consecutive year (2013: -2.9 percent; 2012: -2.2 percent). On the other hand, major investment projects such as the MRT and the Tun Razak Exchange development have been undertaken on a public-private partnership basis and partially financed by government-guaranteed debt, which is estimated to expand to 16.0 percent of GDP at end-2013, from 15.2 percent in 2012. Meanwhile, investments by the 30 largest NFPEs were projected to increase by 50 percent in 2013 to RM 126.2 billion (about 13 percent of GDP, of which 64 percent is domestic). As a result of this surge in NFPE investment activity, the deficit of the consolidated public sector is estimated to have widened to 13.5 percent of GDP in 2013.

### Monetary authorities step up macro-prudential policies

**19. With inflation pressures subdued, monetary policy has been modestly supportive of growth.** Bank Negara Malaysia (BNM) has kept its benchmark interest rate (the overnight policy rate, OPR) unchanged at 3.0 percent for nearly three years now, 50 bps lower than the rate that prevailed between 2006 and 2008 (Figure 15). The holding pattern has

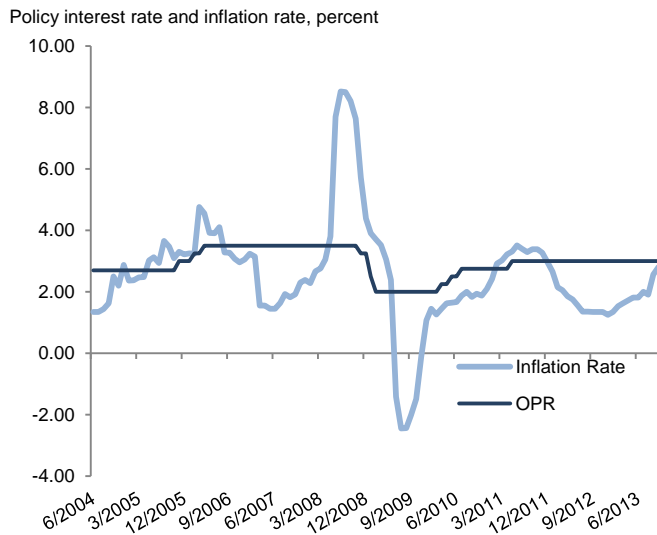
<sup>5</sup> This was mostly due to the payment of only one-half month bonus to civil servants compared to 1.5 months in 2012 (bonuses are usually not accounted for in the budget as they are contingent on revenue performance).

<sup>6</sup> Brent crude oil prices declined by 2.9 percent comparing the 2012 average with the Jan-Sep 2012 average.

<sup>7</sup> The budget allocation for fuel subsidies in 2013 was RM20 billion (see Economic Report 2012/2013 p. 145), including RM4.1 billion for BR1M. Actual spending in 2013 is expected to come at RM 28.9 billion (see Economic Report 2013/2014 p. 144), also including RM4.1 billion for BR1M. Therefore, excluding BR1M, the allocation was RM15.9 billion and the actual spend is expected at RM24.8 billion.

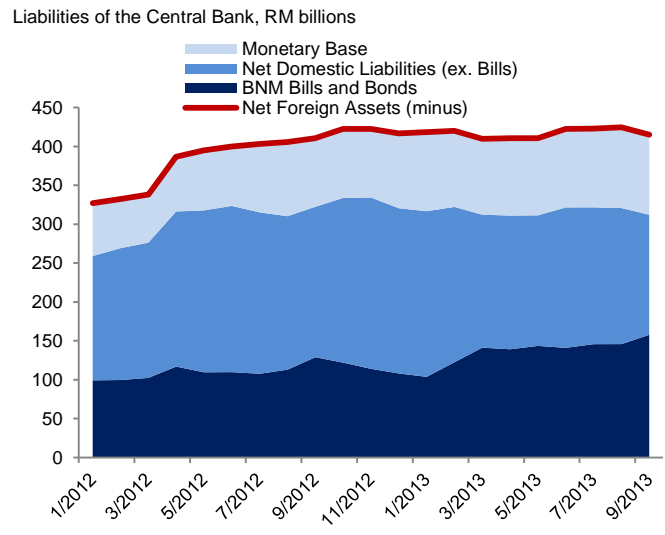
been driven by counter-balancing forces. On the one hand, domestic demand growth has been robust, the output gap closed and may have turned positive, wages seem to be rising, and credit growth remains vigorous. Moreover, residential housing prices in KL have increased by 44 percent between late 2010 and September 2013, more than most other cities in East Asia.<sup>8</sup> Against these incipient demand-side forces, global interest rates remain low, uncertainties linger over the global outlook and credit growth has been responding to macro-prudential measures. Importantly, as noted earlier benign supply conditions have kept inflation low, with few visible price pressures.

**Figure 15. Real policy rates eased in 2013 as inflation picked up, albeit modestly**



Source: CEIC.  
Note: Real policy rates calculated subtracting current inflation from the OPR.

**Figure 16. Liquidity conditions were stable in 2012 with modest growth in early 2013**



Source: BNM and World Bank staff calculations.

**20. Policy action continued to focus on targeted prudential measures.** While keeping interest rates unchanged, BNM continued to address risks to macroeconomic stability through macro-prudential regulations and liquidity management. Most recently, BNM announced new macro-prudential measures including setting a 10-year maximum tenure for personal financing, a 35-year maximum tenure for financing granted for the purchase of residential and non-residential properties, and prohibiting pre-approved personal financing products. Such efforts have begun to bear fruit: growth in net financing to the private sector moderated to an average of 10.1 percent for the first nine months of the year, compared to 12.9 percent for the whole of 2012. Net foreign assets held by BNM remained fairly steady between January 2012 and September 2013 (+5 percent), in contrast to a 29 percent increase in 2011. However, BNM added modestly to its portfolio of net domestic assets by 2.7 percent during this period, in addition to switching back from direct loans and swaps towards bills and bonds. This resulted in the expansion in the monetary base by 11.3 percent over the first nine months of 2013, compared to 29.0 percent in 2012 (Figure 16).

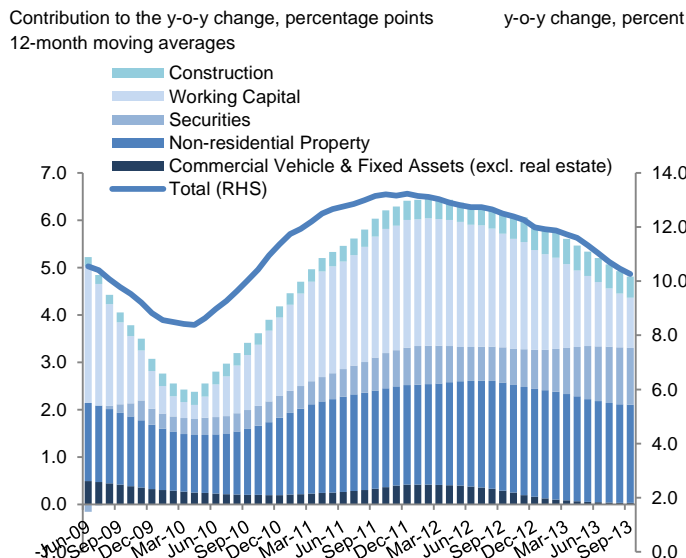
## Financial sector performance suggests emerging moderation in domestic demand

**21. Credit growth to businesses moderated and financing from capital markets declined.** Loans outstanding grew by 10.3 percent as at end-September 2013 compared to 12.5 percent a year earlier (12-month moving average; Figure 17). Outstanding household loans grew at a stable pace, but the growth of outstanding business loans moderated. Total financing extended through the banking system and private debt securities market to the business sector expanded by 6.8 percent as at end-September 2013 compared to 14.4 percent as at end-September 2012. Banking system loans to businesses similarly decelerated, growing 7.1 percent as of end-September 2013 (compared to 13.6 percent a year earlier). New issuances of private debt securities amounted to RM 47.8 billion in the first three quarters of 2013, down by more than half from RM 98 billion in the same period in 2012, when several large issues were placed.

<sup>8</sup> Source: J.P. Morgan, "Asia Focus: Residential Real Estate Prices", published November 22, 2013.

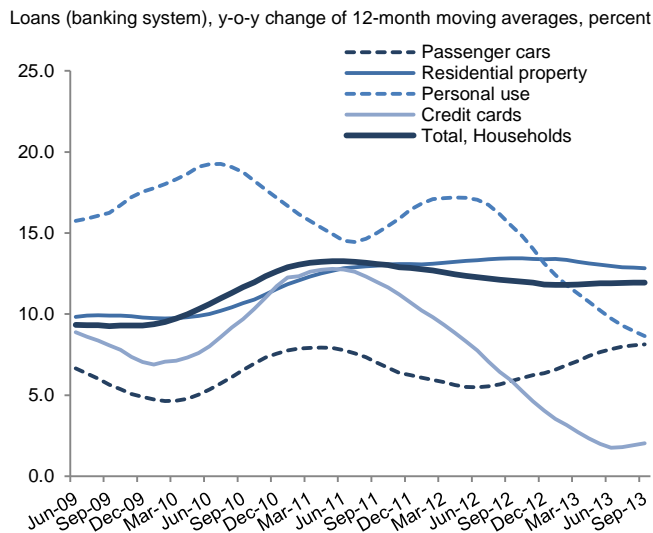
Financing via the equity market also decreased to RM8.6 billion in the first three quarters of 2013 (compared to RM 21.3 billion a year earlier and RM 7 billion per quarter on average in 2012), possibly due to uncertainties regarding global economic conditions, and expectations of tightening global liquidity.

**Figure 17. Growth in working capital loans continues to decelerate**



Source: BNM and World Bank staff calculations.

**Figure 18. Household loan growth held steady thanks to growth in auto and residential property loans**



Source: BNM and World Bank staff calculations

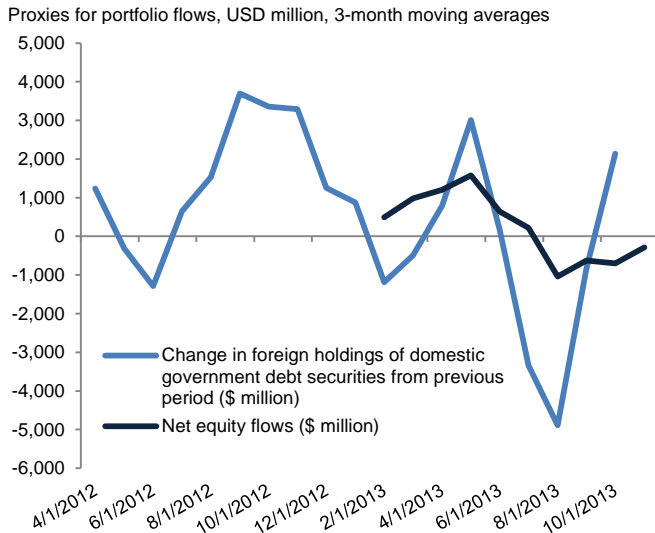
**22. Households continued to borrow, especially to buy cars and residential property.** Outstanding household loan growth from the banking system grew at a stable pace of 11.9 percent (as at end-September 2013, compared to 11.6 percent a year earlier). Despite the moderation in the growth of loans for personal use and credit cards, the overall growth of household loans was stable due to higher growth in loans for the purchase of cars and property (Figure 18). These patterns in loan growth combined with sustained lending by non-bank financial institutions are likely to have kept household debt relatively high. The household debt-to-GDP ratio stood at 83 percent of GDP as of end-March 2013 compared with 80.9 percent as of end-2012. However, the asset position of households also improved as loans were increasingly taken for asset acquisition, and less for consumption. 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 poses additional challenges for monetary policy, as rate hikes are likely to have a relatively larger impact on household budgets than in the past.

**23. Impaired loans remain low, and banks are well-capitalized, mitigating the risk from buoyant credit growth.** As of end-September, the Malaysian banking sector remained well capitalized, with the Tier 1 capital ratio at 13.0 percent and total capital ratio at 14.4 percent, above levels required by national authorities and Basel III standards. Tier 1 capital comprised 90.3 percent of total capital. Asset quality was stable with the ratio of non-performing loans holding steady at 1.4 percent as of September 2013, similar to the ratio at end-September 2012. Credit growth helped keep ratios steady, as the volume of impaired loans grew by 2.2 percent from the previous year.

### The balance of payments experienced tapering-induced volatility

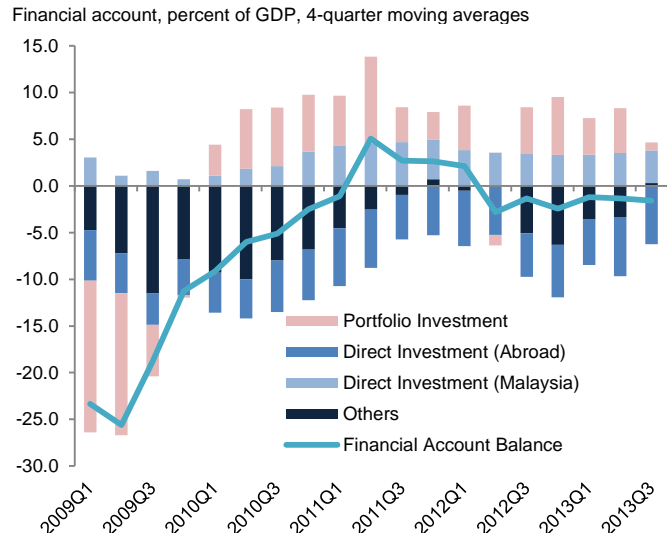
**24. Talk of the US Fed “tapering” its expansionary monetary policy led to global market volatility and portfolio outflows from Malaysia.** Similar to other emerging economies, Malaysia recorded a net outflow of portfolio investments during the third quarter of 2013 in the order of RM9.7 billion (Q2: +RM3.7 billion). Considering the high level of foreign ownership of Malaysian debt securities, outflows were concentrated in those instruments (Figure 19). Inflows rebounded towards the end of the quarter, however, following the announcement of a respite from tapering for the rest of the year.

**Figure 19. "Tapering" talk led to sales of Malaysian debt and equities by foreigners**



Source: CEIC, MIDF and World Bank staff calculations.

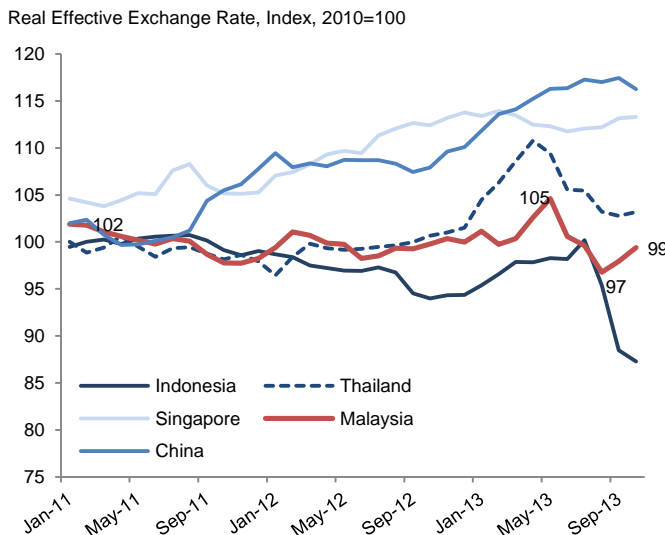
**Figure 20. The financial account posted a deficit in the third quarter due to portfolio outflows**



Source: CEIC and World Bank staff calculations.

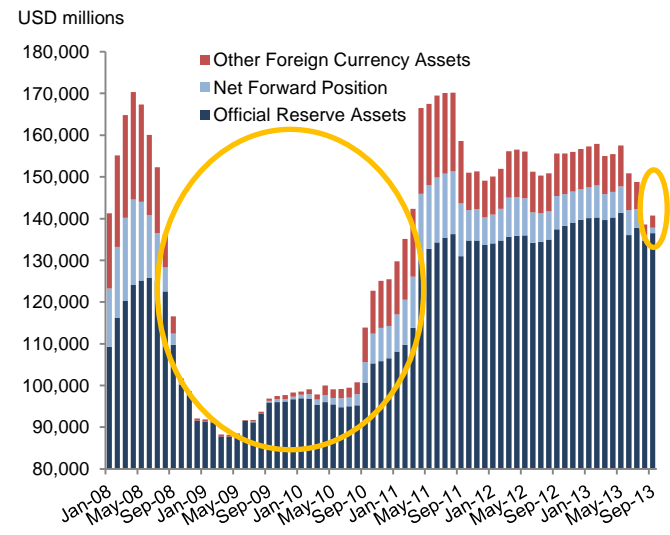
**25. Inward FDI picked up, but net FDI was a source capital outflows and the financial account went into a deficit.** FDI came in at 3.5 percent of GDP in the third quarter (four-quarter rolling basis; Figure 20). Following a contraction in 2012 from the previous year (-16.1 percent, 9m/9m), nominal FDI flows picked up in 2013 (+9.6 percent) across all major sectors. Malaysia has been a net foreign investor since 2008 and direct investment abroad remained healthy (+25 percent 9m/9m vs. 2012)<sup>9</sup>; net FDI thus remained firmly negative and the financial account posted a deficit of RM11.5 billion in Q3. On the other hand, errors and omissions recorded an unusually significant surplus of RM13.4 billion (equivalent to 4.1 percent of total trade), in part due to foreign exchange revaluation gains on international reserves.

**Figure 21. The Ringgit depreciated between May and August 2013**



Source: Bank for International Settlements.

**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 (including the forward leg of currency swaps).

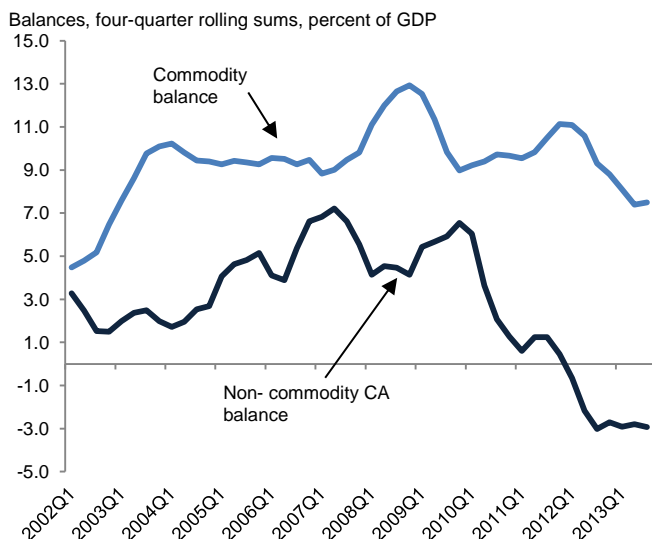
<sup>9</sup> There was a large outflow in the fourth quarter of 2012 due to PETRONAS' USD 6 billion investment in Progress Energy. Therefore, the growth rate for the first nine months almost certainly overstates the growth of direct investment abroad for the year as a whole.

**26. Capital outflows led to a depreciation of the Ringgit.** As currency movements followed capital outflows, the Ringgit depreciated by 10 percent against the US dollar in nominal terms from late May to August 2013. Similar to the Thai Baht and Indonesia Rupiah, the real effective exchange rate (REER) fell below its average value for 2010 (-3 percent) between May and August, but unlike the Rupiah the Ringgit has climbed up in September and October (Figure 21). By contrast, China and Singapore have seen real appreciation since 2010, respectively.

**27. Foreign reserves were little changed during the period of outflows thanks to the flexible exchange rate and BNM's additional tools for currency volatility management.** Net official international reserves stand at USD 136.7 billion as of November 15, 2013. This level of reserves is sufficient to finance over 9.7 months of retained imports<sup>10</sup> and is 3.7 times the short-term external debt. As in previous episodes of volatility, capital outflows were accommodated first out of reductions in the net forward position and other foreign currency assets not included in official reserves (mostly BNM foreign currency deposits with residents), rather than drawing on official reserve assets (Figure 22). Over the past two years, the variation between the lowest and highest levels of net official reserves was only 8 percent compared to 14 percent when other foreign currency assets and the net forward position are included.

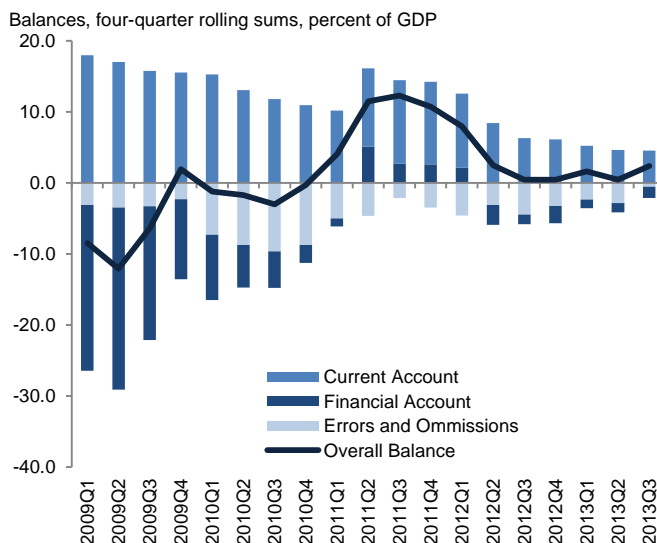
**28. Market volatility brought attention to Malaysia's falling current account surplus – a decline that was halted in the third quarter on the back of better export performance.** Malaysia's current account surplus declined steadily over the past 3.5 years until June, when it posted the smallest surplus in more than 15 years (1.1 percent of seasonally-adjusted GDP or 4.6 percent on a four-quarter rolling sum basis). This trend is linked both to the strength in productive domestic investments, which led to a surge in capital goods and construction service imports, but almost equally to the weakness in exports.<sup>11</sup> Accordingly, the improved export performance in the third quarter helped lift the current account to 4.0 percent of seasonally-adjusted GDP (4.6 percent on a four-quarter rolling-sum basis). Figure 23 points to two proximate causes of the improved performance: first, the non-commodity balance remained stable thanks to a mild recovery in E&E export growth; second, the commodity balance stopped its decline as exports of energy commodities in particular gained. Combined with the performance of the financial account and errors and omissions, overall capital inflows actually picked up to 2.4 percent of GDP between Q4-2012 and Q3-2013 (Figure 24).

**Figure 23. Modest improvements in the commodity exports driven by oil, gas and petrochemicals...**



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 24. ... helped to stop further narrowing of the current account surplus**



Source: CEIC and World Bank staff calculations.

<sup>10</sup> Retained imports are gross imports less re-exports.

<sup>11</sup> For further details of the long-term trends in Malaysia's current account balance and its proximate drivers, please see Selected Issue Note A.

## “Un-balancing” from domestic to external demand key to sustaining growth momentum

**29. Going forward, growth will need to rely more on exports as domestic demand will face headwinds.** The outlook for the Malaysian economy is underpinned by two trends pulling the economy in opposite directions: (i) an improvement in the external environment as the recovery in advanced economies takes hold and generates demand for emerging market exports, and (ii) tighter domestic conditions as policy makers at home and abroad respond to better performance by gradually withdrawing fiscal and monetary policy support.

**30. Consistent with recent trends, the Malaysian economy is expected to leverage on its export-oriented economic structure to maintain its growth momentum.** Tightening fiscal policy is anticipated to start taking its toll starting in the fourth quarter of 2013, which is expected to represent a sequential slowdown, bringing the overall growth rate for 2013 to 4.5 percent compared to 5.6 percent in 2012. As the global recovery gradually picks up momentum, growth accelerates to 4.8 percent in 2014 and 4.9 percent in 2015. The pick-up in growth is restrained by the drag from tighter conditions for domestic demand, which start to abate in 2015. Table 1 and Table 2 present a summary of the forecasts.

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

Year-on-Year Growth Rates, percent				
	2012	2013f	2014f	2015f
GDP	5.6	4.5	4.8	4.9
Domestic demand	11.3	7.6	6.2	6.2
Final consumption	7.1	7.9	5.1	6.4
Private sector	7.7	8.4	6.5	7.2
Public sector	5.1	6.0	-0.1	3.3
GFCF	19.9	10.3	7.1	5.9
External demand	-31.7	-28.5	-18.2	-22.2
Exports of G&S	-0.1	-0.6	5.8	6.1
Imports of G&S	4.7	2.1	7.5	7.6

**Table 2. ...as exports compensate for weaker domestic demand**

Contributions to GDP Growth, percentage points				
	2012	2013f	2014f	2015f
GDP	5.6	4.5	4.8	4.9
Domestic demand	9.8	6.9	5.9	5.9
Final consumption	4.5	5.0	3.4	4.3
Private sector	3.8	4.2	3.4	3.8
Public sector	0.7	0.8	0.0	0.4
GFCF	4.7	2.8	2.0	1.7
Change in Stocks	0.6	-0.9	0.5	-0.1
External demand	-4.2	-2.4	-1.1	-1.0
Exports of G&S	-0.1	-0.6	5.3	5.6
Imports of G&S	-4.1	-1.8	-6.3	-6.6

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

**31. Given the delicate balance involved in withdrawing exceptionally accommodative monetary policy globally, risks are mainly on the downside.** External (and inter-related) risks to the outlook include a disorderly exit from quantitative easing, renewed weakness in the global economy, slower growth in China and a sharp decline in commodity prices. Domestic risks include larger than expected spillovers from fiscal and credit tightening on domestic demand and a continuation of weak export performance due to supply constraints. Should these risks materialize, GDP growth would likely come in closer to 4 percent. On the other hand, a more decisive improvement in advanced economies – especially if combined with a second wind to Malaysia's investment boom attracting high-tech manufacturing and knowledge-intensive services positioning to take advantage of a longer-term global recovery—could boost growth rates above 5 percent.

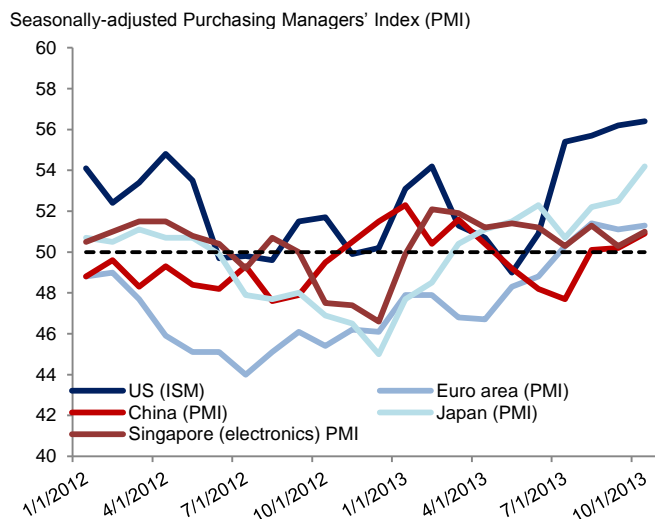
## Global recovery gains momentum, boosting demand for exports

**32. The outlook for global growth has improved and a partial return of the 'old normal' appears likely in the near term.** The 'old normal' of narrower growth differentials between advanced and emerging economies looks set to return in 2014 and 2015. After three years of volatile sentiments regarding the recovery of advanced economies, the Euro area, US and Japan have all reported two consecutive quarters of positive sequential economic growth for the second and third quarters of 2013 (albeit at varying speeds). Purchasing Managers' Indices (PMIs) in the advanced economies have rallied since the middle of the year, and global PMI reached a 27-month high in September (Figure



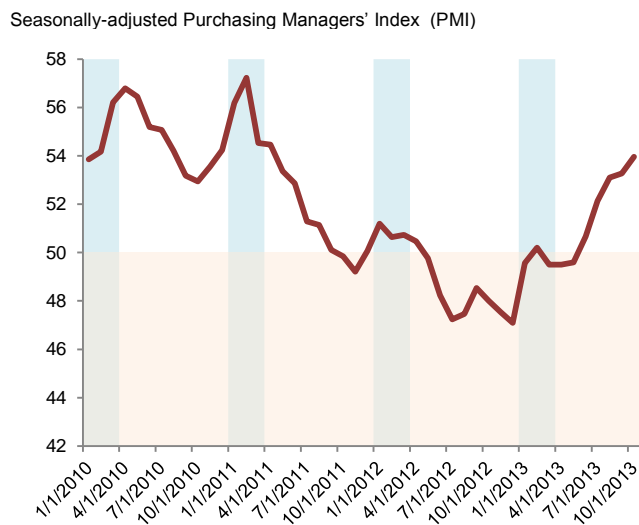
25 and Figure 26)<sup>12</sup>. In the Euro area, GDP is expected to grow by 0.9 percent in 2014 (2013: -0.6 percent, forecast).<sup>13</sup> Meanwhile, the outlook is somewhat better for the US (+2.8 percent in 2014 vs. 2.0 percent in 2013) and Japan (+1.4 percent for 2014 and 2013) with growth rates for both economies surpassing or near pre-crisis levels. Growth in emerging economies, especially China, is expected to moderate from recent peaks but will remain healthy. As a result, the difference in average growth rate between developing and advanced economies is expected to narrow to 3.6 percentage points in 2014 compared to 4.3 percentage points in 2011. Given the relative size of advanced economies, these developments are likely to boost global import demand, presenting opportunities for an export-oriented economy like Malaysia.

**Figure 25. Purchasing managers' indices are generally in positive territory**



Source: Bloomberg (Japan, Euro area), HSBC (China), CEIC (US, Singapore).  
Note: Scores above 50 reflect expansion.

**Figure 26. The trend of a deterioration in sentiment among high-income economies was finally reversed in 2013**



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

**33. Growth in China and ASEAN is set to accelerate modestly in 2014.** GDP growth in China surprised on the upside in the second and third quarters of 2013 and China's PMI remains in mildly expansionary territory (Nov. 2013: 50.8). However, a lower steady-state growth rate is expected into 2014 as prospects are circumscribed by the need to cool-off credit growth. Chinese GDP is expected to expand by 8.0 percent in 2014 (2013 Q3 SAAR: 9.1 percent). Growth prospects in the large ASEAN economies remain similarly tempered, although for different reasons. Indonesia's growth rate will be dampened by weaker terms of trade and tighter financial conditions, while Thailand's prospects are muddled by an ongoing political crisis.

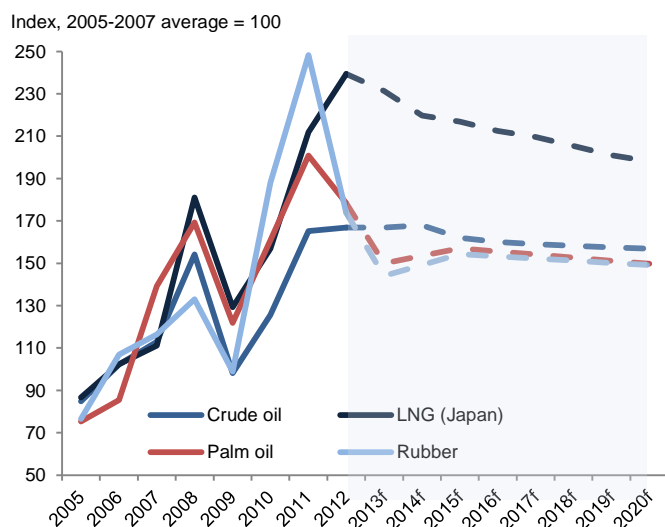
**34. Supply and demand factors point to lower commodity prices.** With growth in China settling at a slower pace compared to the previous decade and the US more reliant on domestic energy sources, commodity demand is unlikely to be buoyant in the coming year. Moreover, supply factors suggest downside risks to prices. New capacity is expected to come online following significant investments in the past five years, higher interest rates may somewhat reverse some of the recent "financialization" of commodities (i.e. their use as financial assets), and geopolitical tensions appear to have eased with the tentative agreement on Iran's nuclear program. Agricultural commodities tend to follow oil prices (Baffes and Dennis 2013) and in fact according to those authors palm oil is the agricultural commodity most correlated with global oil prices. Therefore, prices of commodities are projected to remain stable or decline in coming years (Figure 27).

<sup>12</sup> *Developing Trends*, The World Bank DEC Prospects Group (2013b)

<sup>13</sup> Unless noted otherwise, all GDP forecasts are from the June 2013 Global Economic Prospects (World Bank Development Prospects Group, 2013d).

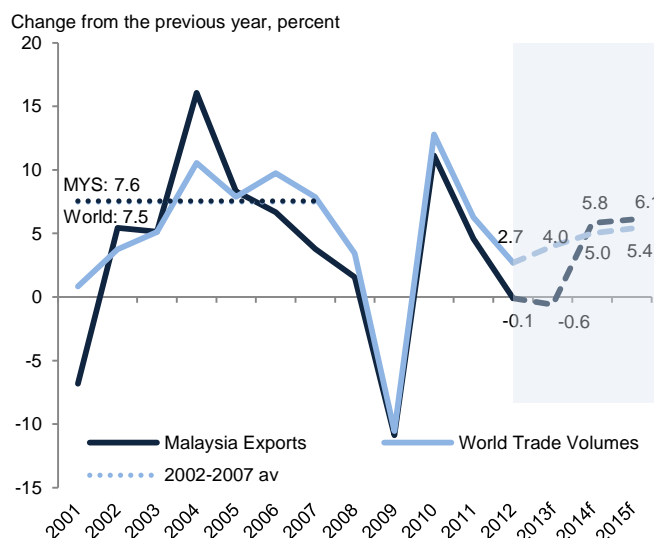
**35. Export growth is expected to pick up momentum into 2014.** Export growth will be driven by higher energy commodity and petrochemical production, as new investments start to come online. A pick-up in E&E, as suggested by the Singapore electronics PMI (which remains on an expansionary mode) and the recent response of Malaysia's E&E sector to improved demand conditions will also help. Based on a relatively favorable outlook for the global economy and stabilization in the output of energy commodities and E&E, Malaysia's exports are projected to expand by 5.8 percent in real terms in 2014 and 6.1 percent in 2015. These rates remain well-below Malaysia's pre-crisis averages of 7.6 percent export growth (Figure 28).

**Figure 27. Commodity prices are projected to remain stable or decline in coming years**



Source: World Bank Development Prospects Group.  
Note: World Bank forecasts as of October 2013

**Figure 28. World trade volumes are not expected to return to pre-crisis levels in the medium-term**



Source: CEIC, World Bank Development Prospects Group and World Bank staff calculations.  
Note: World Bank forecasts as of June 2013.

**36. Stronger performance in advanced economies is widely expected to be accompanied by a “tapering” of the US’ quantitative easing.** Such normalization of monetary policy is likely to lead to capital outflows and a combination of upward pressures on interest rates and weaker exchange rates. Box 1 discusses the potential impact on Malaysia of the tapering of accommodative monetary policy in advanced economies.

**Box 1. What are the implications of Fed tapering for Malaysia?**

Tapering, or a gradual normalization of monetary policy in advanced economies, is likely to lead to a rebalancing of global portfolios towards advanced economies, resulting in capital outflows from emerging economies. It is important to keep in mind from the outset that tapering will only take place as a result of better economic prospects in the US, which brings positive implications for emerging economies (improved demand for exports). Moreover, the effects of tapering itself, especially in the context of improving global demand conditions, are not all negative, and the positive implications may well prevail.

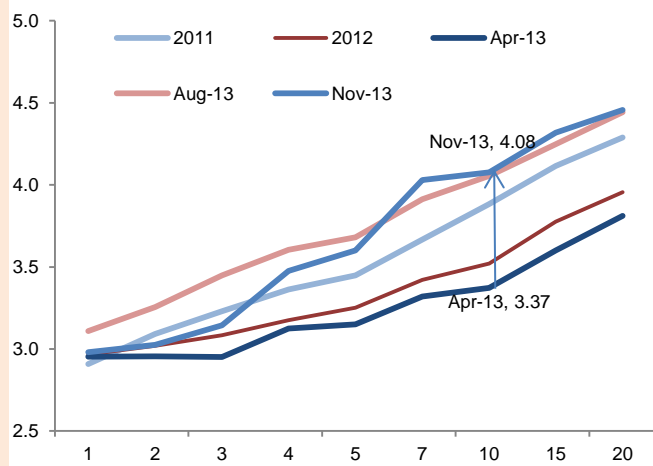
Tapering-induced capital outflows may have at least three (likely joint) effects: (i) a weakening of exchange rate, as investors demand foreign currency to exit; (ii) higher interest rates as the price of financial assets being sold declines, or central banks raise rates to stem outflows, or commercial banks funding themselves globally face higher funding costs; and (iii) volatility in capital outflows, which can have its own effects, notably by demanding excessive external adjustments raising the risk of a liquidity crisis. Countries with large external financing needs (either from large external debt maturities or current account deficits, neither of which applies to Malaysia) are especially vulnerable to such volatility-induced sudden stops in inflows that may be induced by tapering.

In Malaysia's case, whether the implications of tapering for economic growth are positive or negative depends on Malaysia's ability to revert to the 'old normal' of export-led expansion driven by demand from the US/EU while managing the volatility in capital flows as well as the optimal combination of higher interest rates and a weaker exchange rate. If Malaysia can switch back to the 'old normal' mode of leveraging on external demand for growth, then any tempering of domestic demand from higher interest rates (and fiscal tightening) can be offset by reinvigorated export growth, spillovers from which would keep the domestic sector healthy (e.g., better export prospects can offset higher interest rates and costlier capital goods imports in terms of attracting investments). In this case, tapering-induced depreciation would be additional 'grease' in the export machine.

But is Malaysia's economy well-placed to take advantage of revived demand from the EU and the US? Selected Issue Notes A and B suggest that Malaysia's export structure has become more concentrated in commodity sectors, while demand from advanced economies tends to be primarily for high-tech goods. Issue Note B considers the sectoral composition of investments over the past two years and confirms that most capital formation has been in commodity sectors (both upstream and downstream). Meanwhile, new investments in the high-tech sector (and non-commodity manufacturing more broadly) have been less buoyant, and Malaysia appears to have lost comparative advantage in E&E (World Bank 2013b). Currency depreciation and improved demand may help, but they are unlikely by themselves to attract new investments into high-tech manufacturing since these external conditions (including depreciated currencies) would apply to Malaysia's competitors as well. Currency depreciation (and higher interest rates) would on the other hand reduce investments with high import content, as tends to be the case in the commodity sectors (floating LNG platforms, exploration equipment, turbines for power plants, etc.). Overall, while Malaysia's exports are expected to benefit, the upside currently appears limited.

**Figure 29. Yields on 10-year government bonds have increased by 71 basis points in the past 8 months**

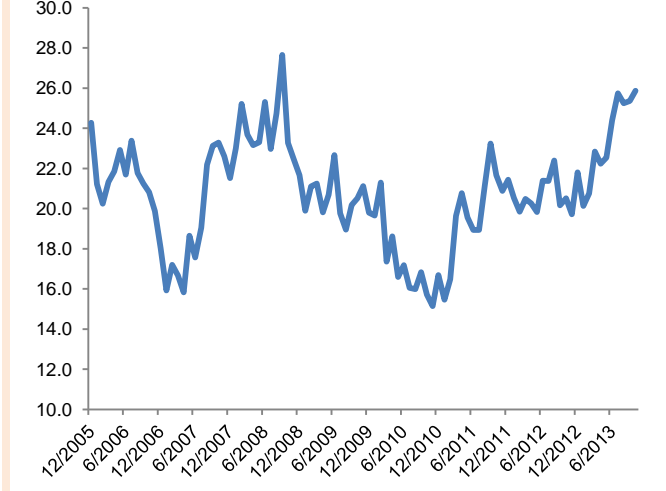
Yield curves, different dates; yield in percent (y-axis) and tenor in years (x-axis)



Source: ADB

**Figure 30. About a quarter of bank debt is due outside Malaysia**

Share of bank liabilities excluding deposits, capital and reserves that are due outside Malaysia



Source: CEIC and World Bank staff calculations.

The other potential implication of tapering for Malaysia is higher interest rates. This may come about through a number of channels:

- For the government, as foreigners withdraw from domestic government bonds (Figure 19), yields increase (Figure 29). With financing needs of close to 10 percent of GDP per year (deficit plus roll-overs) a 1 percentage point increase in interest rates leads to an increase of approximately 0.3 to 0.4 percent in overall government expenditures, a small but non-negligible amount.
- If interest rates start rising globally, banks (which have been benefiting directly from low global interest rates—about a quarter of the debt of the banking system is due to foreigners—see Figure 30) may start passing along higher rates to consumers even before Bank Negara raises the policy rate. Higher consumer interest rates will put a strain on household budgets, since household debt is over 80 percent of GDP and much of it are housing loans, where the interest rate tends to be linked to short-term interest rates. Credit conditions

may also become tighter, which affects households and businesses that need to roll-over loans.

- Finally, many investment projects are financed in the domestic corporate bond markets, which would also be expected to face higher rates.

All of these factors would point to significant headwinds to consumer, business and government spending next year, with the ability of the export sector to continue the turn-around seen in the third quarter critical to the overall outlook.

Source: Authors, World Bank (2013b)

### Domestic demand likely to face headwinds

**37. Several factors will create a drag on domestic demand, especially in the first half of 2014.** First, fiscal consolidation is expected to continue in earnest in 2014 with a possible further round of subsidy cuts and moderation in emolument expenditure growth. Second, while tapering may be linked to a boost to the external sector (which in turn may spill-over to domestic sectors), higher interest rates or a weaker currency by themselves would weigh on both consumption and investment (Box 1). Finally, households will be pressed to maintain the spending growth of previous years in the face of higher debt servicing costs and steeper prices due to fiscal consolidation and other rationalization measures (e.g. the recently announced hike in electricity costs, which may lead to higher consumer prices). Notwithstanding the headwinds, labor market conditions remain tight, and the government is expected to continue to provide cash transfers in lieu of subsidies, which would partially offset its impact on consumption.

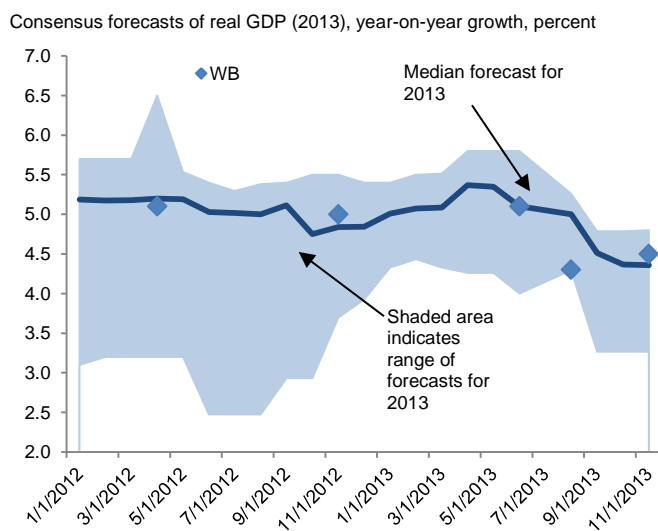
**38. Against this background, the contribution of domestic demand will decline.** The domestic value-added of goods and services absorbed by consumption or investment in Malaysia is expected to expand by 9.5 percent in 2013 and 5.7 percent in 2014, before picking up again to 6.6 percent in 2015. Domestic demand as defined in the national accounts (total consumption and investment) is expected to contribute 6.9 percentage points to GDP growth in 2013 and 5.9 percentage points in 2014 and 2015, down from 9.8 percentage points in 2012 (Table 1). On the other hand, while the negative contribution from net exports will continue in 2013 (-2.4 percentage points), this gap will narrow to -1.1 and -1.0 percentage points in 2014 and 2015, respectively, thanks to faster export growth.

**39. The investment boom is set to continue, albeit at a less torrid pace.** Given expectations of improvement in the global environment in 2014 as well as the significant pipeline of investment projects, GFCF should continue to make an important contribution to growth. Nevertheless, some dampening of the momentum is expected given the high base effect as well as the impact of tapering and fiscal consolidation, which may also revive talks of sequencing certain investments with high import content. Real gross fixed capital formation is expected to decelerate from 19.9 percent in 2012 to 10.3 percent in 2013 and 7.1 percent in 2014 and 5.9 percent in 2015. As GFCF growth is expected to remain above GDP growth in the medium term, the share of investments in GDP is expected to climb steadily to 28 percent of GDP in 2015.

**40. Consumption is expected to moderate as household budgets come under pressure.** Although the key factors driving private consumption in 2012 and 2013—tight labor markets and cash transfers—will likely remain in place in 2014, household expenditure faces potential headwinds in the form of the government's fiscal consolidation efforts, namely subsidy rationalization and lower civil service bonuses. Reduced energy subsidies, not only in terms of additional fuel price hikes but also an adjustment of electricity tariffs, may have a knock-on impact on consumer prices, as may the wider introduction of the minimum wage. Private consumption may also be negatively affected by possible interest rate hikes and tighter credit markets, with signs of weaker credit expansion already appearing this year. Finally, the muted prospects for agricultural commodity prices would not support significant consumption growth from smallholder households. On the other hand, the rate of deceleration in household spending will be moderated by firm employment and wages—supported by strengthening exports and the minimum wage—as well as cash transfers, which will be increased in 2014. Private consumption growth is therefore expected to moderate from 8.4 percent in 2013 to 6.5 percent in 2014 (2012: +7.7 percent), before picking up to 7.2 percent in 2015. Growth in government consumption will come in at 6.0 percent in 2013 (largely due to high growth in the second and third quarters) before contracting in 2014 by 0.1 percent.

**41. In summary, on a year-on-year basis Malaysia is expected to register real GDP growth of 4.5 percent in 2013, accelerating to 4.8 percent in 2014 and 4.9 percent in 2015.** The World Bank's forecast for 2013 lie 0.1 percentage point above the median consensus forecast (as of mid-November; Figure 31) and slightly below the median consensus estimate for 2014. On a sequential basis, the forecast assumes a 4.8 percent average quarterly growth in 2014 despite another soft patch in the first half of that year should subsequent fuel subsidy rationalizations take place. Headline GDP growth projections have been reduced compared to those in the June 2013 Malaysia Economic Monitor due to economic expansion surprising on the downside in the second quarter. Hence while projections for domestic demand—particularly private sector consumption—have been significantly upgraded (Figure 32), export growth forecasts have been continually adjusted downwards, from 3.6 percent (November 2012), to 3.2 percent (June 2013) and now to a contraction of -0.7 percent due to the bottoming-out of external market conditions in mid-2013.

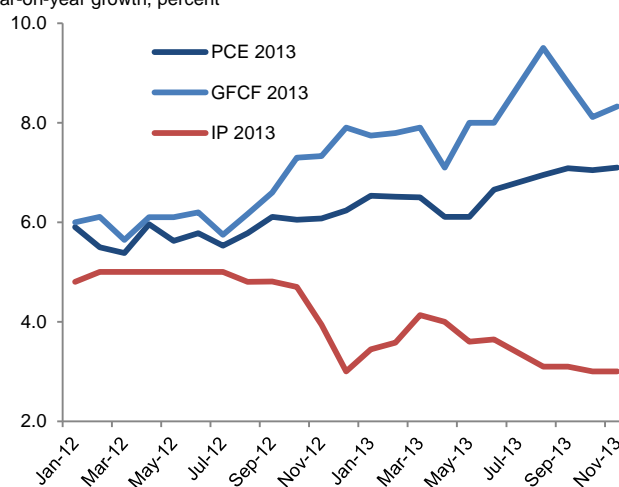
**Figure 31. Forecasts for 2013 growth have come down following the soft patch in the first half...**



Source: Consensus Economics, World Bank staff calculations and projections.

**Figure 32. ...in tandem with expectations for domestic production**

Consensus forecasts of real GDP components and industrial production (2013), year-on-year growth, percent



Source: Consensus Economics.  
Note: PCE refers to Private Consumption Expenditure.

### Fiscal and monetary accommodation likely to be reduced in 2014

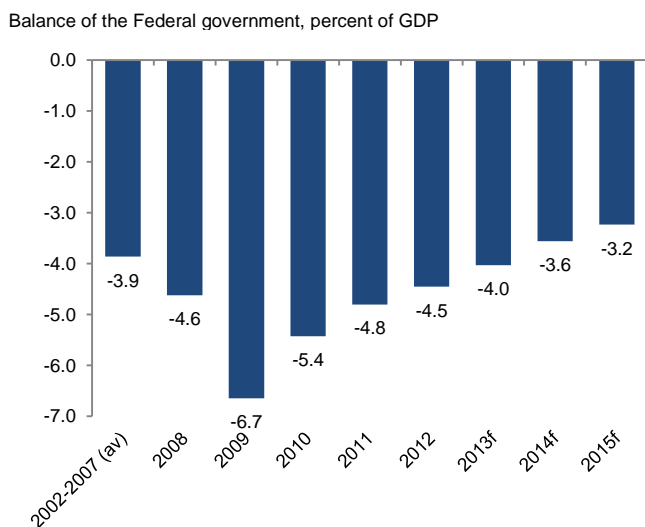
**42. The 2014 budget promises further consolidation through spending restraint rather than revenue gains.** The government reaffirmed its commitment to achieving a budget deficit of 3.5 percent of GDP in 2014. This is premised on realistic projections for moderate revenue growth including a further reduction in oil-related revenues based on the expectation of lower global oil prices. The revenue-to-GDP ratio is in fact projected to decline to 21.2 percent of GDP in 2014 from 22.3 percent in 2012. Short of better-than-expected commodity prices or resorting to further asset sales, there is limited potential for upside in revenues, as corporate and personal taxes are expected to remain relatively elevated at 8.7 percent of GDP (similar levels to 2013) despite additional tax breaks offered in the budget. Therefore, the reduction in the deficit will need to be achieved through expenditure restraint.

**43. Slower growth in emoluments and a reduction in subsidies will be the drivers of consolidation.** Spending on personnel (wages, pensions and gratuities) is projected to expand by a modest 4.3 percent in 2014. Ensuring that spending on emoluments consistently comes close to budgeted allocations, as is expected in 2013, will be critical to the consolidation effort and also to build the credibility of the budget. The bulk of the consolidation effort targets subsidies. The government abolished the sugar subsidy, which is expected to save RM500-600 million in 2014 compared to 2013. However, most of the contraction in the subsidy bill comes from fuel subsidies. The allocation for fuel subsidies has been reduced by 23 percent, but the allocation for BR1M, which is included in the same line as fuel subsidies, has been increased by 12 percent on account of the expansion of the program. Therefore, the 'actual' spending on fuel subsidies needs to contract by RM7.1 billion or 28.6 percent in 2014 in order for the target to be met.

**44. The introduction of the GST will support consolidation efforts in the medium-term.** The main fiscal policy reform introduced in the 2014 budget was the announcement that a Goods and Services Tax (GST) would be implemented in April 2015 at a rate of 6 percent, with cash transfers expanded to mitigate the impact both of the GST and subsidy cuts on lower-income households (see Box 2 for more details). Estimates of the revenue impact of the overall package of measures have not been provided. However, the Government estimates that the GST will enhance net revenue by RM11 to 15 billion. Moreover, GST is expected to eventually broaden the tax base and diversify it from oil-revenues, ensuring greater buoyancy of revenues in the medium-term.

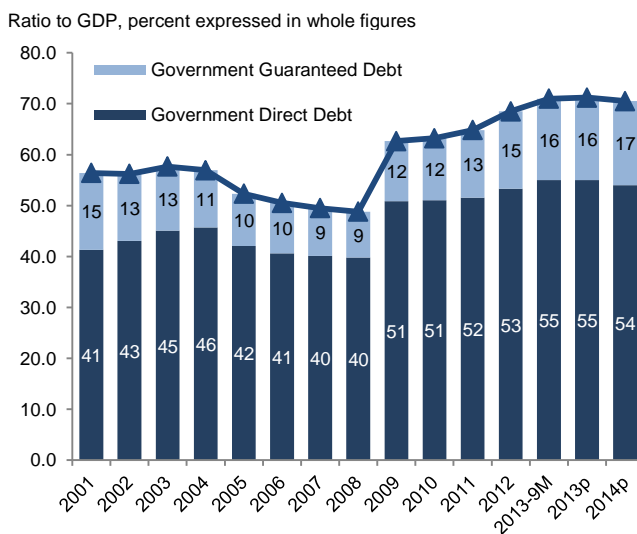
**45. As a result of consolidation, debt levels are expected to decline.** The Government will continue to make a significant effort to deliver increasingly lower deficits to signal its commitment to fiscal prudence. As a result, the deficit is expected to meet its 2013 target of 4.0 percent of GDP, below the deficit for 2012 (4.5 percent). Given continued momentum for fiscal consolidation in 2014 and 2015, the deficit is projected to remain on a downward trajectory, though challenges in the medium-term growth outlook and reduced headroom to increase revenues mean that the headline deficit may be narrowly missed (Figure 33). Declining deficit levels are expected to lead to a reduction in the ratio of federal government debt to GDP from 54.8 to 54.3 percent, while contingent liabilities are expected to increase modestly (Figure 34). 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>14</sup>

**Figure 33. Despite higher expenditures, the federal balance is expected to improve**



Source: CEIC, World Bank staff calculations and projections.

**Figure 34. Debt levels are expected to stabilize in 2014**



Source: MOF, World Bank staff projections.

### Box 2. Highlights of Budget 2014

The 2014 Budget reaffirmed the government's commitment towards fiscal consolidation, and included two sets of potentially important structural reforms that are highlighted, the first with respect to tax reform, and the second with respect to reforming social protection policies.

The implementation of GST was announced in the context of **broader tax reform package**, which includes the following measures:

- Introduction of GST at 6 percent, with zero-rating for essential food items and electricity, and exemption for government services as well as health, education and financial services

<sup>14</sup> Contingent liabilities include contingent commitments under public-private partnerships (PPPs) and government guarantees, among others. Non-debt liabilities include unfunded pension liabilities and non-contingent commitments under PPPs such as capital leases.

- Abolishment of the sales and services tax
- Review of the individual income tax structure, with the chargeable income subject to the maximum rate increased from RM100,000 to RM400,000 in addition to a one percentage point reduction in the maximum rate from 26 to 25 percent. In addition, overall income tax rates will be reduced by 1 to 3 percentage points for all tax payers
- Corporate income tax will be reduced from 25 to 24 percent

It should be noted that GST had been announced in the 2005 budget, but implementation was postponed. Similarly to ensuring that spending comes in line with budgeted allocations, ensuring that the GST is implemented on schedule will contribute not only to fiscal consolidation, but also to the credibility of fiscal policy.

The Budget also included important changes to **social assistance policies**. Along with the renewed commitment to rationalize consumer price subsidies, the Budget included further extensions to the Bantuan Rakyat 1Malaysia (BR1M) program along with a commitment towards a more targeted and coordinated social benefits system.

BR1M cash disbursements are intended to mitigate the impact of subsidy cuts and GST on lower and middle-income households while allowing the government to pursue a path of fiscal consolidation. In 2012, 4.8 million households and 2 million singles received cash assistance of RM500 and RM250, respectively. However, based on data from the 2012 Household Income Survey (HIS), 38.5 percent of households or only about 2.5 million households earn less than RM 3,000 and should have been eligible for the benefit, suggesting a significant targeting error.

The third iteration of the BR1M will see allocations increased to RM650 per household earning less than RM3,000, while eligible single adults would benefit from an increased payout of RM300. The scheme will also be extended to households with incomes between RM3,000 and RM4,000, who will receive a payout of RM450 each. All BR1M recipients will also receive an additional RM50 payment in the form of an insurance premium for an RM 30,000 death and disability insurance policy. The government has allocated RM 4.6 billion for BR1M, which is now estimated to reach 7.9 million recipients. Assuming the number of singles remains unchanged, the government estimates that 5.9 households will benefit, compared to 3.6 million that should be eligible based on HIS data. The cost of the targeting error (i.e. providing the benefit to households that are not eligible) is estimated at RM1.7 billion.

Realizing the importance of improving targeting performance, the government also announced in the Budget the establishment of an integrated database of recipients of assistance. Implementation of such an improved targeting mechanism would be a critical piece of the government's modernization of social assistance programs from relying on consumer price subsidies, which are distortionary and poorly targeted, to channeling fewer resources towards targeted groups for greater impact.

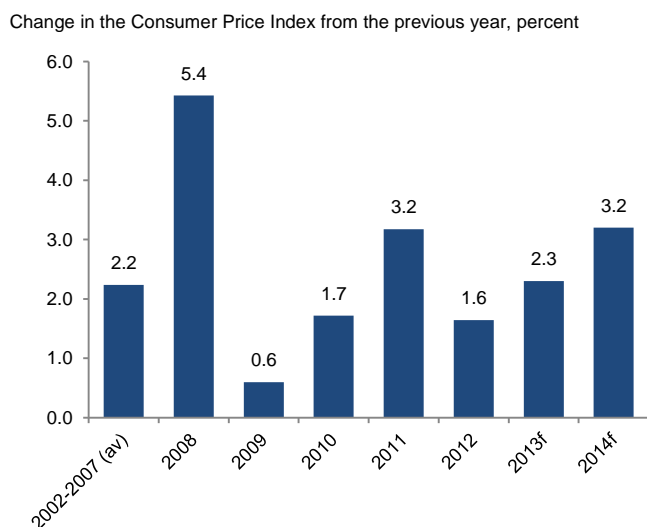
Source: Authors.

**46. Despite subsidy cuts and a broader implementation of the minimum wage, inflation is likely to pick up only modestly in 2014.** Malaysia's headline inflation rate is projected to come in at around 2.3 percent in 2013 (2012: 1.6 percent), picking up to 3.2 percent in 2014 (Figure 35). The forecast for 2014 is higher than the average rate observed during the 2002-2007 period (2.2 percent) due to the low base in 2013, strength in domestic demand, hikes in fuel prices, electricity tariffs and tobacco taxes, and finally the broader implementation of the minimum wage. These factors are tempered by the continuation of benign supply conditions, as indicated by the expectation of declining commodity prices. Inflation is expected to come in at 3.0 percent in 2015, as the base effects from fiscal consolidation in 2014 wane, but the GST comes online.

**47. Given the benign inflation outlook, monetary authorities are likely to continue to focus on macro-prudential regulations rather than the interest rate.** In its November policy statement, BNM noted that it still sees considerable risks to the global economic outlook. Furthermore, the Central Bank expects that inflation would rise from low levels, but did not signal a concern with second-round effects of increases in administered prices. Given the benign expectations for inflation rates going forward, as well as the desirability of ensuring a smooth (relative) switch of growth engines from domestic to external, any need to adjust monetary policy in the near term would more likely be

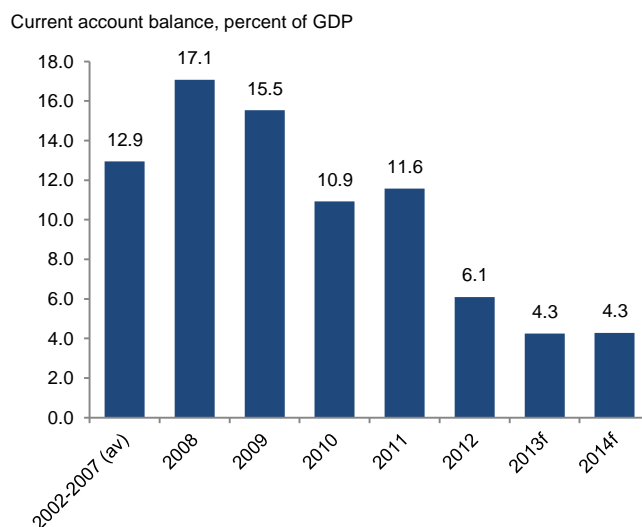
met through liquidity and macro-prudential measures. However, this trend may change at some point in late 2014 or 2015 once the export sector has consolidated its recovery and global interest rates start to rise.

**Figure 35. Inflation is expected to pick up modestly in 2014**



Source: CEIC, World Bank staff projections.

**Figure 36. The current account is expected to remain in surplus, albeit a narrowing one**



Source: CEIC, World Bank staff projections.

### The current account should stabilize at a modest surplus

**48. The current account surplus is expected to stabilize above 4 percent of GDP.** As discussed in greater detail in Issue Note A, the current account has narrowed about equally due to slowing exports and rising imports (including imports of commodities intended for re-export). A recovery in exports accompanied by a dampening of domestic demand would lead the current account surplus to stabilize as a percentage of GDP at 4.3 percent in 2014 and 2013 (Figure 36). The stable current account surplus in 2014 despite more moderate investment growth and expansion in exports is related to lower commodity prices, the projection of a positive contribution from inventory investments (much of which are imported parts), and the high import content of E&E exports, which are expected to pick up as part of the export recovery.



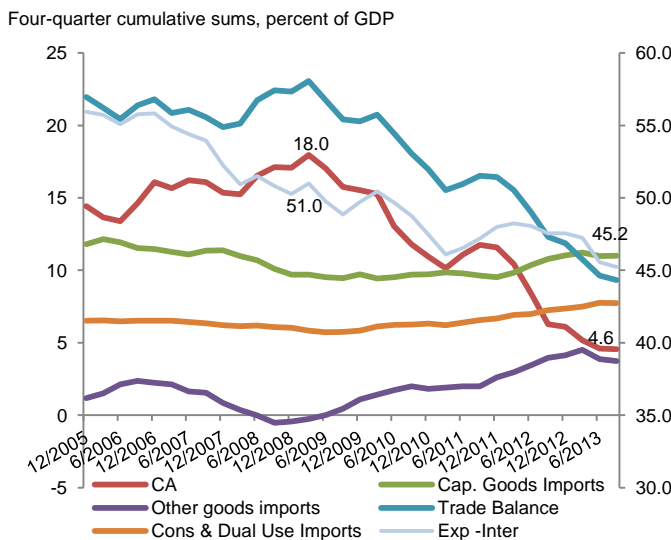
## 2. SELECTED ISSUE NOTES

### A. Malaysia's narrowing current account and export competitiveness

49. Malaysia's current account balance narrowed from a high of 18.0 percent of GDP in the first quarter of 2009 to 11.9 percent in 2011, 6.3 percent in 2012 and 4.6 percent of GDP in the four quarters ending September 2013 (four-quarter rolling sums). Figure 37 plots the evolution of key components of the current account and suggests a number of conclusions. First, the decline in the current account has followed a decline in the trade balance; to the extent the income and transfers component played a small role, it was a positive one.

50. Second, higher imports (excluding imports of intermediate goods) contributed 57 percent of the narrowing of the current account balance since Q3 2009. Strong investment growth led to an equally robust pick-up in imports of capital goods, which grew by 20.5 percent in 2012 compared to an average of 5.6 percent between 2005 and 2011. Similarly, imports of consumption goods expanded robustly by 11.5 percent in 2012 on the back of buoyant household consumption growth. But the largest contributor to import growth is imports for re-export, largely oil and copper, which have been increasingly accumulated in expanded storage facilities in South Johor.<sup>15</sup> In Figure 38, "retained imports" exclude such imports meant for re-export, but for BoP purposes, any imports that are not re-exported in the same quarter must be included. Therefore, the growing gaps between the dark and light blue lines in Figure 38 (which are included in the purple line in Figure 37) reflect such imports.

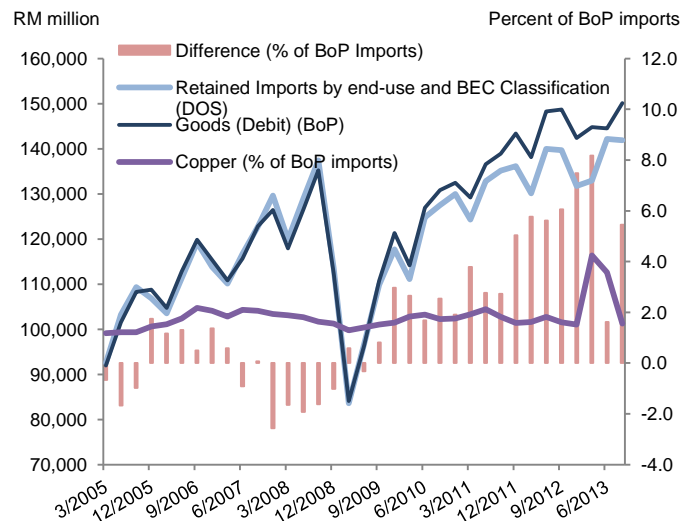
**Figure 37. Declining exports as a share of GDP have been a major driver of the current account narrowing**



Source: DOS, BNM, World Bank calculations.

Note: Exports less intermediate goods imports; "other goods imports" derived by subtracting imports of capital, consumer, intermediate and dual use goods from imports in the balance of payment series.

**Figure 38. Other imports, partly related to copper and oil imports for re-export, have increased since 2010**



Source: DOS, World Bank staff calculations.

51. The third observation from Figure 37 is that a decline in exports (less imports of intermediate goods) contributed about 43 percent of the overall decline in the current account surplus. This is despite a significant increase in commodity prices during the period in question (crude oil prices increased by 58 percent during this period), which

<sup>15</sup> Due to a glut in global copper supply from the end of 2012 through to mid-2013, commodities trading houses had taken advantage of enhanced storage facilities in Johor to store copper surpluses. Stocks of copper intended for re-exports in Johor subsequently ballooned from 12,750 tons in December 2012 to a peak of 116,650 tons in March 2013. In addition, petroleum storage had been growing in 2011 and accelerated in 2012, due to expansion in Tanjung Bin and Tanjung Langsat.

should have supported nominal exports. In the first quarter of 2009 exports, less imports of intermediate goods, represented 51.0 percent of GDP; by the third quarter of 2013, the figure had come down to 45.2 percent (four-quarter cumulative figures), a reduction of 5.7 percentage points of GDP. It is also notable that exports appear to have been declining since 2005, when they represented 55.9 percent of GDP. With advanced economies staging a tentative recovery in 2014 and beyond, can this decline in export performance be reversed, therefore leading to improved prospects for the current account and the economy overall? This note describes the changes in export structure and competitiveness of Malaysia's exports between the pre- and post-global financial crisis.

52. Malaysia's export market share contracted between 2006-Q1 and 2013-Q1 at an annual rate of 0.5 percent (Table 3). This was driven mainly by negative growth during the pre-crisis period (2006-Q1-2008-Q2) of -3.9 percent, compared to -0.7 percent during the post-crisis period (2010-Q3-2013-Q1). Table 3 decomposes the changes in market share growth by geographical/market, sectoral and supply factors.<sup>16</sup> The latter is further decomposed into price and volume factors. Over the whole period, positive geographical and price factors (namely the expansion of exports to faster-growing China and rising commodity prices), contributing 1.6 and 2.8 percent, respectively, were dominated by negative sectoral and volume factors, which contributed -1.7 and -3.2 percent, respectively (Figure 39 and Table 3). The negative contribution from sectoral factors is related to the fact that E&E exports were declining in Malaysia relative to its global market share among other sectors, while the negative contribution from volume factors may be linked to reduced capacity in E&E.

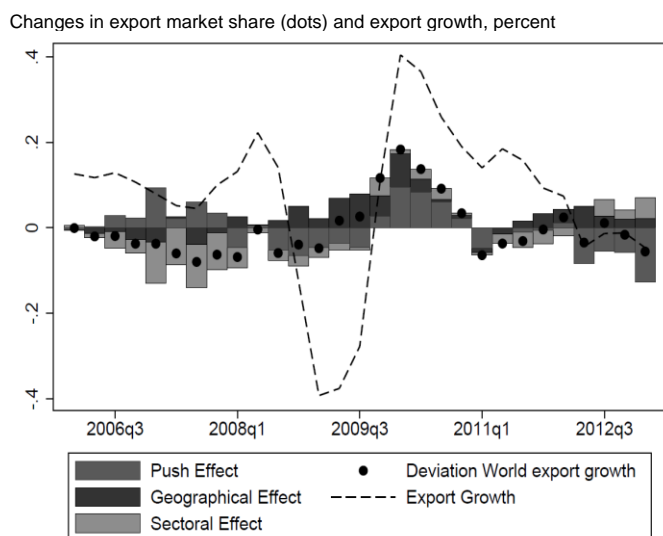
**Table 3: Export market share growth decomposition across different periods**

	Export market share growth	Export composition factors, of which:		Export push factors (export market share growth without export composition factors), of which:		
		Market factors	Sectoral factors	Overall factors	Price factors	Volume factors
2006q1-2013q1	-0.5%	1.6%	-1.7%	-0.4%	2.8%	-3.2%
2006q1-2008q2	-3.9%	-1.1%	-5.0%	2.2%	1.2%	1.0%
2010q3-2013q1	-0.7%	1.7%	0.2%	-2.7%	2.9%	-5.6%

Source: World Bank Export Competitiveness Database

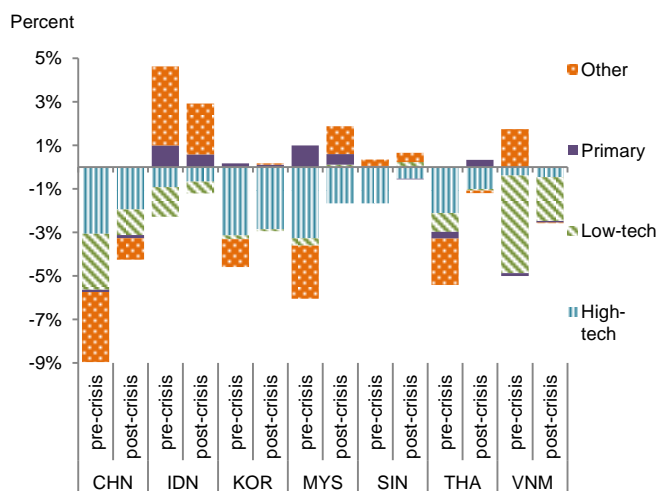
Note: Indicators are expressed in log-difference form, which allows additivity across indicators.

**Figure 39. Negative push effects dominated in the post-crisis period.**



Source: World Bank Export Competitiveness Database

**Figure 40. Within sectors, high-tech had a negative contribution, reflecting decline in E&E exports**



Source: World Bank Export Competitiveness Database

<sup>16</sup> Market and sectoral factors are essentially demand-side factors that describe whether Malaysia's export structure is changing towards exporting to faster or slower-growing destinations (geographical/market factors) and sectors (sectoral factors). Push factors are calculated as the residual variation unexplained by demand factors and therefore assumed to be related to supply conditions.

53. With the exception of Thailand, Malaysia is the only country among its peers with declining export market share in the post-crisis period (Table 4). Malaysia's export performance lags particularly behind Vietnam and China whose strong export market share growth performance was mainly driven by positive push effects (namely, increase in capacity from investment, for example from Samsung in Vietnam). Interestingly, all South-East Asian peer countries—and especially Thailand—showed negative push effects which were mainly driven by negative volume factors, while all peer countries except for Thailand had positive price effects. Market factors showed a positive growth contribution in all countries, reflecting increasing trade with China and emerging markets more broadly among Southeast Asian countries.

54. The negative contribution from sectoral factors, especially during the crisis, was concentrated in high-tech sectors, primarily E&E. Figure 40 decomposes the export market share growth contribution of sectoral composition factors by technology intensity, differentiating between high-tech, low-tech, primary and other sectors. High-tech exports declined in all countries and both periods, with Malaysia's posting the third largest negative growth after China and South Korea. By contrast, post-crisis export growth contribution of other products and primary products was positive and the second largest after Indonesia, reflecting the increased role of commodities in the export basket relative to other countries.

**Table 4: Export market share growth decomposition across different countries, pre-crisis vs. post-crisis**

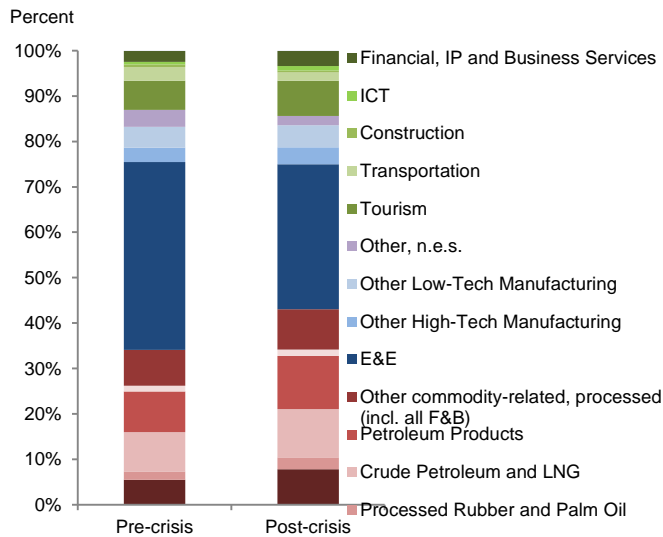
	Export market share growth	Export composition factors, of which:		Export push factors (export market share growth without export composition factors), of which:		
		Market factors	Sectoral factors	Overall factors	Price factors	Volume factors
<b>2006q1-2008q2</b>						
China	2.5%	-2.0%	-9.0%	13.4%	-0.7%	14.0%
Indonesia	-1.9%	-2.0%	2.3%	-2.2%	0.3%	-2.5%
Korea	-3.2%	0.4%	-4.4%	0.8%	-1.7%	2.5%
<b>Malaysia</b>	<b>-3.9%</b>	<b>-1.1%</b>	<b>-5.0%</b>	<b>2.2%</b>	<b>1.2%</b>	<b>1.0%</b>
Singapore	-4.1%	1.3%	-1.3%	-4.2%	2.9%	-7.0%
Thailand	0.2%	-1.0%	-5.4%	6.6%	-0.1%	6.7%
Viet Nam	6.5%	-2.7%	-3.3%	12.4%	-0.7%	13.1%
<b>2010q3-2013q1</b>						
China	4.6%	1.0%	-4.3%	7.9%	2.4%	5.5%
Indonesia	0.3%	1.1%	1.7%	-2.5%	0.7%	-3.2%
Korea	0.6%	2.6%	-2.8%	0.8%	2.4%	-1.6%
<b>Malaysia</b>	<b>-0.7%</b>	<b>1.7%</b>	<b>0.2%</b>	<b>-2.7%</b>	<b>2.9%</b>	<b>-5.6%</b>
Singapore	1.9%	4.2%	0.1%	-2.4%	1.6%	-3.9%
Thailand	-3.6%	2.6%	-0.9%	-5.3%	-1.4%	-3.9%
Viet Nam	21.3%	0.2%	-2.6%	23.6%	2.7%	21.0%

Source: World Bank Export Competitiveness Database

Note: Indicators are expressed in log-difference form, which allows additivity across indicators.

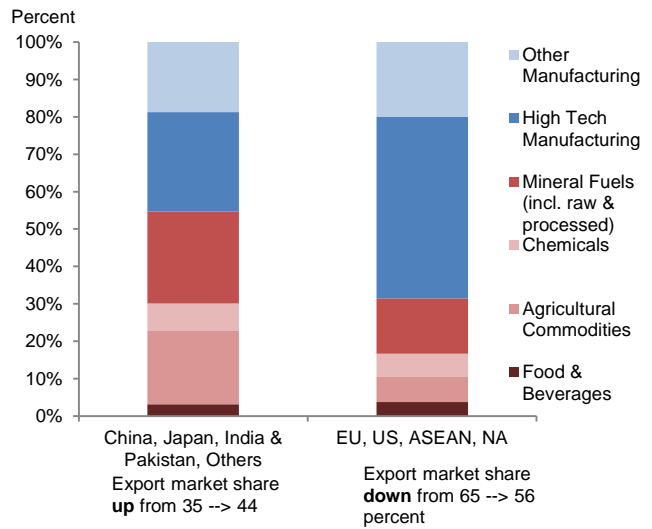
55. The composition of exports is closely linked to the shift in destinations – in other words, market and sectoral effects are in fact linked. Two related developments in the structure of Malaysian exports took place between the pre- and post-crisis periods. First, the share of commodity-related exports increased (Figure 41). In the analysis above, this is reflected as a positive but small contribution of sectoral factors in the post-crisis period, as commodities have been a relatively fast-growing sector globally partly due to rising prices. Moreover, the increased reliance on commodities is also linked to the positive contribution from price factors. With respect to the destination of exports, the share of Malaysia's exports to China, Japan, India, Pakistan and others (mostly emerging markets) has increased by 9 percentage points, whereas the share going to the EU, US, ASEAN and North Asia (NA; includes Korea and Taiwan, China) has declined by the same amount, although it remains larger (56 vs. 44 percent). The positive contribution from market factors is reflected in the fact that the former group of countries (where Malaysia has increased its export share) has been growing faster than the latter. The link between sectors and destinations can be seen in Figure 42: only about a quarter of exports to fast-growing markets are high-tech manufacturing, compared to almost 50 percent to the mature markets of the US, EU and North Asia.

**Figure 41. Commodity-related exports have gained**



Source: CEIC and World Bank staff calculations

**Figure 42. The composition of exports reflects a shift in destinations**



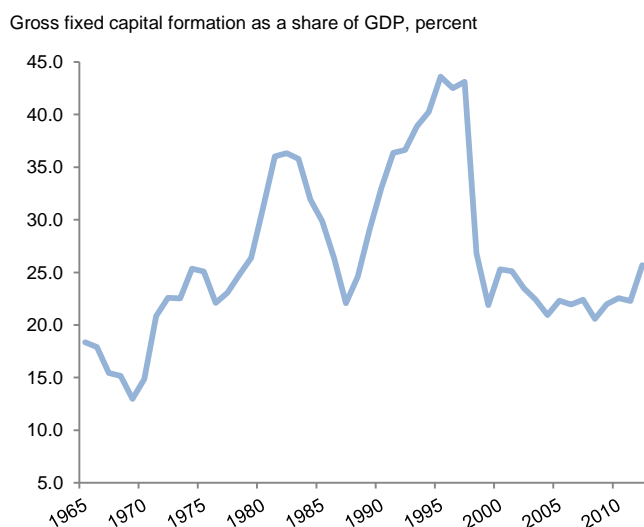
Source: CEIC and World Bank staff calculations

**56.** This note suggests that fully leveraging the improved demand conditions from a recovery in advanced economies to drive growth and higher current account surpluses would require a reversal of the patterns observed in recent years, specifically the relative decline in high-technology manufacturing vis-à-vis upstream and downstream commodity sectors. Although Issue Note B confirms that these patterns have been in line with the composition of investments, further research is required to investigate the deeper causes of these patterns and identify specific policy recommendations to reverse them. One area that would certainly support attracting industries intensive in human capital such as high-tech manufacturing and knowledge-intensive services would be improving the quality of Malaysia's education system, which is the subject of the thematic chapter of this Economic Monitor.

## B. Assessing Malaysia's recent investment boom

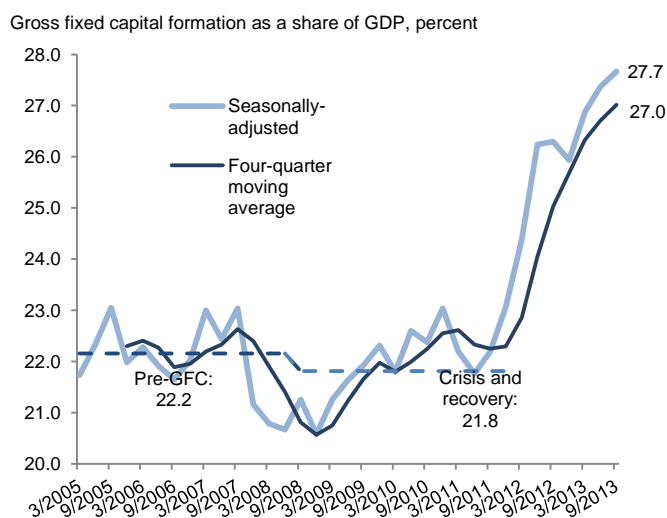
57. After the Asian Financial Crisis (AFC), gross fixed capital formation (GFCF) plummeted from a peak of 43 percent of GDP in 1997 to 21 percent in 2004 (Figure 47). Between 2005 and the onset of the Global Financial Crisis (GFC), fixed investment stabilized at just over 22 percent of GDP, similar to the average rate observed during the onset and recovery from the GFC. But starting in earnest in the first quarter of 2012, fixed investments surged, growing by nearly 20 percent in 2012 and reaching 25.7 percent of GDP (nominal terms) for the year as a whole. The momentum continued into 2013, with GFCF reaching 27.0 percent over the four quarters ended in September 2013 (Figure 44).

**Figure 43. Investment picked up in 2012 to levels not seen since before the Asian Financial Crisis**



Source: DOS, World Bank calculations.

**Figure 44. The surge started in early 2012 and continued into 2013**



Source: DOS, World Bank staff projections.

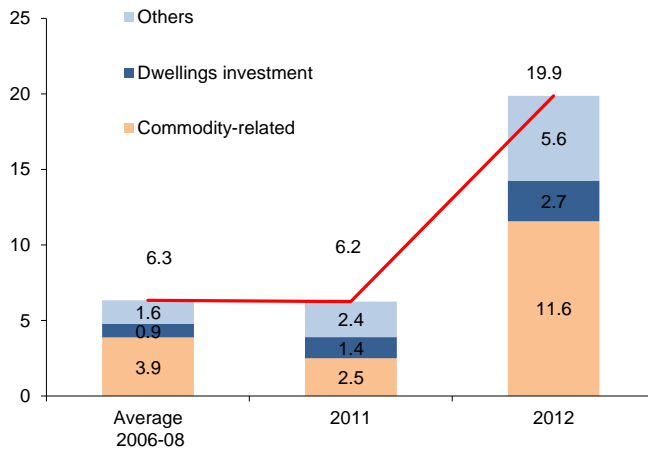
58. Different types of investment may have different effects on the economy. “High quality” investments in productive capacity in competitive, externally-oriented industries and complementary with high levels of human capital are likely to boost future exports and potential output. However, a disproportionate share of investments flowing into domestic-oriented sectors with low productivity and limited export potential might be associated with macroeconomic imbalances such as property price bubbles. Although not all “gross fixed capital formation” is alike, until recently there was little data on the nature of investments. However, Malaysia's Department of Statistics has recently released more granular data on GFCF. Data is available from 2005-2012 for both private and public investment in the major sectors, and total GFCF data is available for selected sub-sectors<sup>17</sup>. In this note, we utilize this data, in addition to other proxies, to make an initial assessment of the quality of Malaysia's investment boom.

59. Growth in capital spending in 2012 was concentrated in resource-related industries. Gross fixed capital formation grew by 19.9 percent in 2012, while private investment expanded by 21.9 percent. Figure 45 and Figure 46 decompose this growth by sector. Investments by resource-related industries such as agriculture, mining, petrochemical and oleo-chemical manufacturing contributed 11.6 percentage points to investment growth in 2012 (or 58 percent share of the total increase in investment). Investments in the mining sector alone accounted for 43 percent of the growth in GFCF (Figure 47), growing by 54.4 percent in 2012 compared to 16.7 percent on average between 2006 and 2011. Resource-related investments in manufacturing (petrochemicals, plastics and rubber products, 13 percent of GFCF growth) and services (especially commodity storage) were also significant, putting the overall contribution of resource-related industries at close to 2/3 of the observed growth in GFCF in 2012.

<sup>17</sup> The sectors are as follows: agriculture (palm oil, rubber), manufacturing (resource-based, E&E and transport equipment, etc.) and services (transport, storage and communication, finance, insurance, real estate and business services, etc.).

**Figure 45. Gross fixed capital formation growth was driven by commodity-related sectors, overall...**

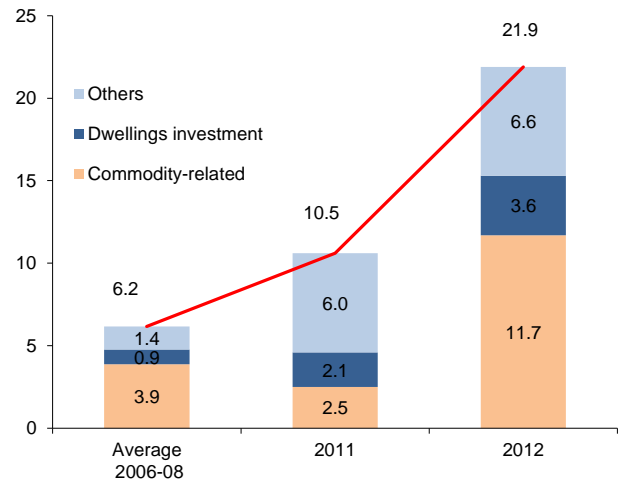
Total investment growth, Ppt contribution, y-o-y growth (%)



Source: DOS, World Bank calculations  
 Note: Commodity-related sectors include mining, agriculture and petroleum, rubber and plastics manufacturing. Numbers do not add up due to rounding.

**Figure 46. ... and among private investments**

Private investment growth, Ppt contribution, y-o-y growth (%)

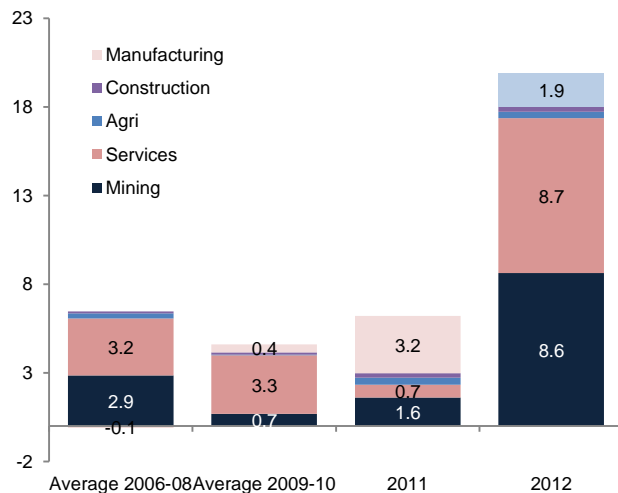


Source: DOS, World Bank staff projections.  
 Note: Commodity-related sectors include mining, agriculture and petroleum, rubber and plastics manufacturing. Numbers do not add up due to rounding.

**60.** Oil and gas companies added to capacity in response to higher oil prices and the expansion of incentives. Higher prices since 2007 stimulated investment in the oil and gas sector globally (Figure 48). Moreover, additional incentives were offered under the Petroleum Income Tax (Amendment) Act 2011. Announced in November 2010 under the Economic Transformation Programme, incentives were expanded to promote the development of new oil and gas resources, provide incentives for the development of technically challenging resources and further stimulate domestic exploration activity.

**Figure 47. Total investments driven by the mining and services sectors**

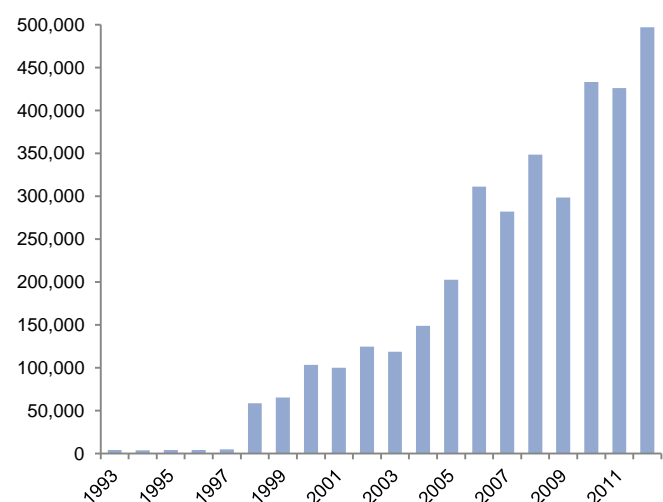
Contribution to growth in GFCF (percentage points)



Source: DOS, World Bank calculations

**Figure 48. Crude oil exploration and production investments have surged globally**

Crude oil exploration and production (E&P) spending, USD million

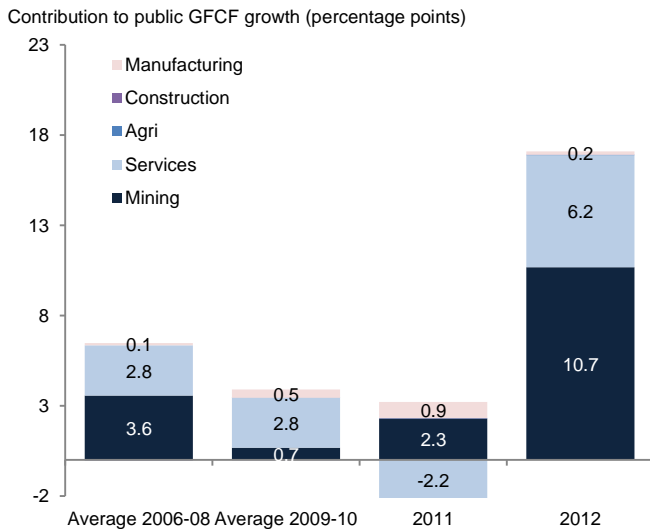


Source: World Bank DECPG

**61.** Public investment in the mining sector, primarily from PETRONAS, catalyzed private investments as many projects are developed jointly between PETRONAS and private companies, or they provide an anchor for private companies to join. As a result, 47 percent of investments in the mining sector came from the private sector. Figure 49 shows that public investment growth was concentrated in the mining sector, whereas Figure 50 shows that growth in private

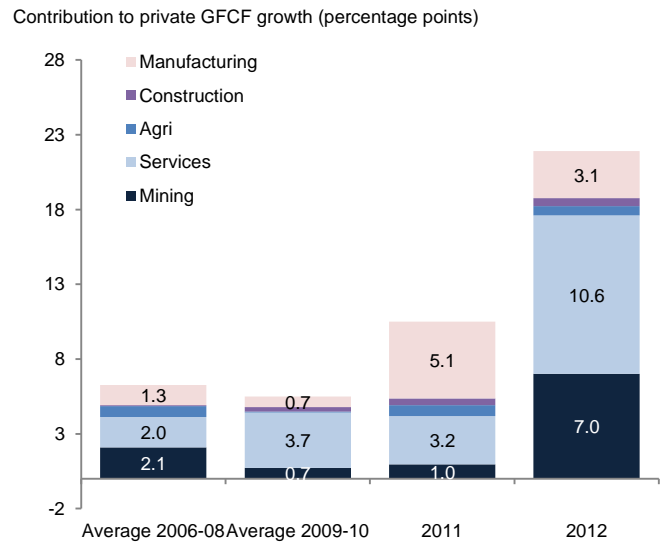
investments in mining was also substantial. Mining investments were channeled towards the acceleration of development activity in upstream projects such as the Gumusut-Kakap deep-water oil field, the Keababangan Cluster and marginal oil fields such as Berantai. Ongoing investments in 2012 and 2013 include regasification terminals in Sungei Udang (Malacca), Pengerang (Johor) and Lahad Datu (Sabah), the Sabah Oil and Gas Terminal and Sabah-Sarawak Gas Pipeline between Kimanis and Bintulu, and the floating LNG facility in Kanowit (Sarawak).

**Figure 49. A large share of mining investments came from the public sector**



Source: DOS, World Bank staff calculations

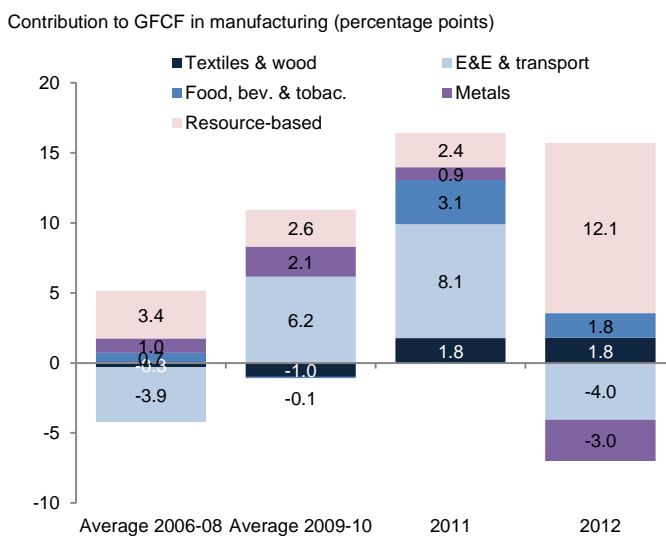
**Figure 50. Private investment driven by both mining and the services sectors**



Source: DOS, World Bank staff calculations

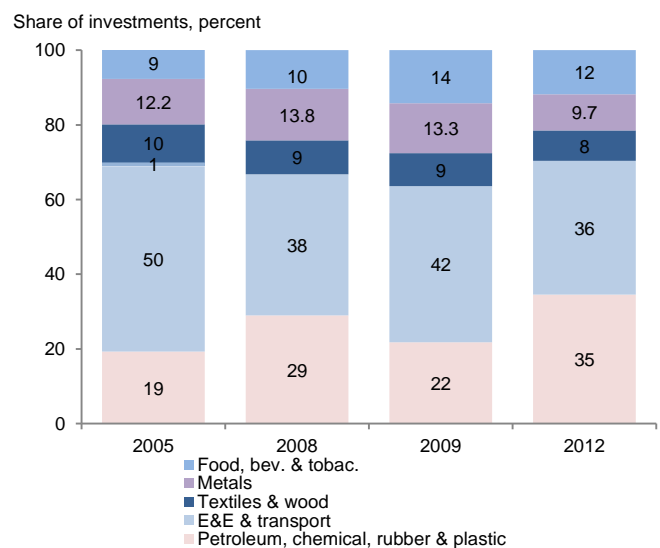
**62.** Investments in downstream activities of resource sectors played an important role in manufacturing and service investments. In the manufacturing sector, investments in the resource-based sub-sectors included fertilizer plants and pharmaceutical products and accounted for 13 percent of overall investment growth (Figure 51). In the services sectors, there was a marked increase in transport and storage investments, notably in major commodity storage facilities. Investments include various oil storage terminals in Johor (including in Pengerang, Tanjung Bin and Tanung Langsat), Vale's iron ore distribution hub in Lumut and a copper storage warehouse in Pasir Gudang and Port Klang.

**Figure 51. Manufacturing investments expanded in resource-based sectors, but contracted in E&E**



Source: DOS, World Bank staff calculations

**Figure 52. Declining share of E&E investments**

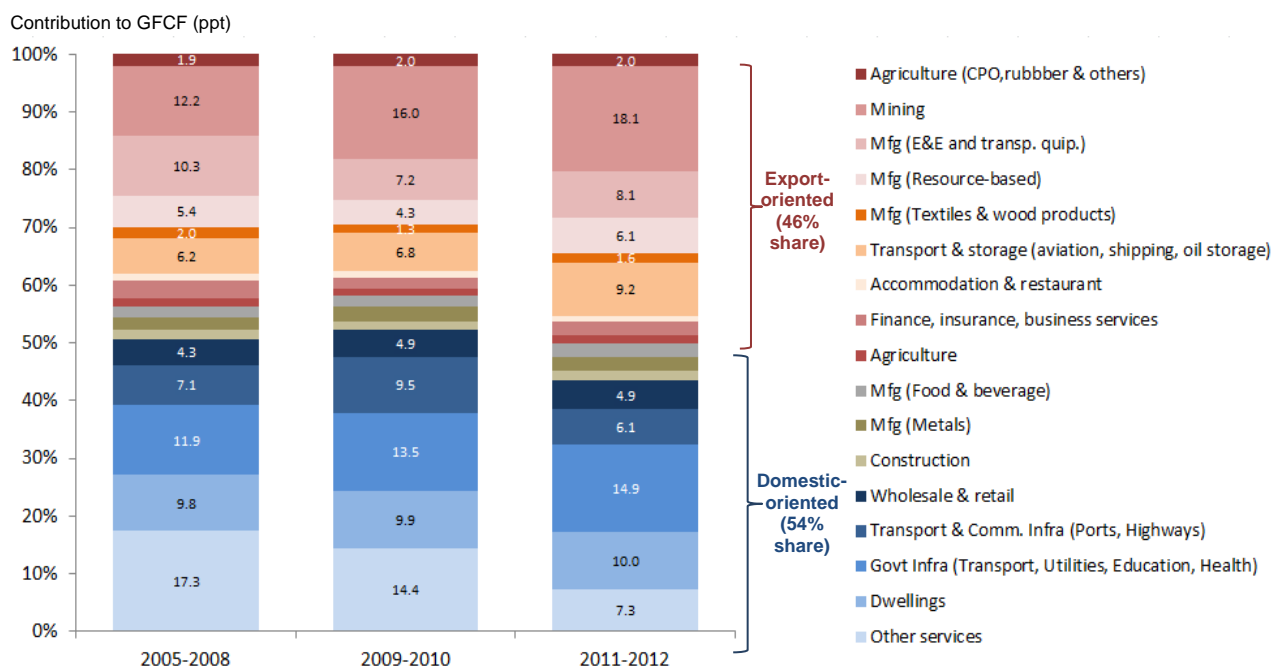


Source: DOS, World Bank staff calculations.

63. New productive capacity in the resource-related sectors should provide a boost for exports going forward. Although a considerable impact to production is unlikely in the immediate term, due to the long-gestation period of investments, oil production has already improved. Oil production remains well below the peak of 762,000 barrels per day (bpd) in 2004, oil production grew by 2.6 percent in 2012 (2012: 585,000 bpd; 2011: 570,000). The expansion of terminals for storage (and in some cases blending) of commodities for re-exports, represent a further new growth area for Malaysia.

64. Investments in high-tech export-oriented sectors were less buoyant. Within manufacturing, the electrical and electronics (E&E) industry continued to attract investments mainly in the new growth areas of renewable energy (solar), semiconductor, medical devices and solid state drives. However, the share of investments in high-tech manufacturing declined from 50 percent of manufacturing investments in 2005 to 36 percent in 2012, with E&E investment levels almost unchanged since 2005 (Figure 52). While these could be due to weak global demand for E&E products in general, low investments will be a cause for concern, particularly if it reflects a slow transition up the value chain for existing E&E industries and lack of new investments in high growth E&E sub-sectors.

**Figure 53. Investments mostly in the export-oriented sectors, with higher productive capacity expected to contribute to rising exports going forward**



Source: DOS and World Bank staff calculations

Notes: 1/ Export-oriented Agriculture (CPO and rubber), Domestic-oriented Agriculture (Livestock, Fishery & Others)  
 2/ Export-oriented Manufacturing: E&E and transport equipment ("high-tech"), resource-based and textiles and wood products  
 3/ Infrastructure reflects public investments in structures in services sectors.

65. Overall, close to half of all investments in 2012 were directed to export-oriented sectors. A detailed breakdown of investments by sub-sectors suggests that close to half of the investments undertaken in 2011-2012 were in the export-oriented<sup>18</sup> sectors (Figure 53). These include investments in mining (which are all assumed to be directly exported or indirectly channeled to export-oriented sectors), the resource-based manufacturing sector such as petrochemical

<sup>18</sup> The classification of export-oriented sectors was guided by each sector's relative size of export-orientation, as per the BNM Annual Report 2012 White Box on "Changing Drivers of Economic Growth in Malaysia" and World Bank staff estimates. While it is acknowledged that categorizing all investments in sectors classified as export-oriented may be inaccurate, this bias is to some extent minimized by using investment data at the most disaggregated sectoral level possible. The validity of this method is further verified by weighting investments according to the export-orientation of each sub-sector. As both methods yield broadly similar results, the first method is chosen to present the findings given its simplicity.



and oleo-chemical, electronic and electrical and investments in the export-oriented services sector, namely transport and storage.

**66.** A significant portion of domestically-oriented investment is estimated to have been in infrastructure. Infrastructure investment is also likely to increase the capacity of the economy and potential output, although the gestation period may be long. For example, investments in the MRT not only take years to be completed, but the benefits that come from improved connectivity and enhanced livability in the Klang Valley may come still further in the future. It is estimated that infrastructure investments expanded by 26 percent in 2012 and comprise 15 percent of all investments.<sup>19</sup>

**67.** Real estate investment also expanded significantly, but does not appear to have played a major role in the investment boom. Dwellings investment or residential real estate investment expanded in line with overall investment growth, expanding by 20.9 percent in 2012 (2006-2011 average: 5.5 percent). While these investments are argued to be less productive compared to investments in sectors which directly produce output, the share of dwellings investment in Malaysia does not appear to be excessive, accounting for 18 percent of private investment in Jan-Sept 2013 (2012: 17.3 percent share). This is in line with the shares seen in advanced and regional economies whereby dwellings investment typically accounts for 15-20 percent of private investment. Investments in commercial real estate are harder to gauge as they would be included in services investments, but taking wholesale, retail, accommodation and restaurants as a proxy suggests similarly that investments in commercial real estate expanded at the vigorous rate of investment overall but remain a relatively small share of total investment.

**68.** Remaining investments in the domestic-oriented sectors catered to rising domestic demand. Investments in the domestic-oriented services sub-sectors such as distributive trade (4.8 percent share of GFCF) and finance, insurance, real estate and business services (12.4 percent share of GFCF) grew by 12.8 and 22.3 percent respectively, reflecting firm growth in domestic demand. DOS does not provide further breakdown in Other Services (38.6 percent share of GFCF), but it is estimated that most of these investments were undertaken by the Government (estimated at 15 percent share of GFCF), in its provision of basic utilities, public healthcare, public education and defense spending and the rest includes investments in private healthcare, private education and entertainment. Investments in private healthcare and private education which currently cater mainly to the domestic market, are also expected to support Malaysia's exports of medical tourism and education services going forward. Investments in private education and private health represent a promising area in Malaysia's diversification from primary or processed commodities. Medical tourism receipts grew by 9.3 percent in 2012 to RM 559 million while exports of education services grew by 9.6 percent in 2012 to RM 744 million. Prominent examples of investments in these sectors include the establishment of international institutions, particularly in the Iskandar Malaysia area, namely Marlborough College Malaysia and Newcastle Medical University.

**69.** Overall, the picture that emerges is one where investments are likely to raise Malaysia's productive capacity but they also leave Malaysia's economy less diversified horizontally. A large share of investments is either directly linked to export-oriented industries or is infrastructure-related and therefore likely to increase potential output. While the growth in real-estate and other domestic investments has also been robust, their share in overall investments remains relatively small. However, with the vast majority of investment growth in export-oriented sectors in mining and related sectors, the economy has become less diversified horizontally and therefore more exposed to shocks coming from the fluctuation in commodity prices. Similar to the previous Issue Note, further analysis is required to better understand the underlying causes of investment patterns so that measures can be proposed to reinvigorate investments in high-tech manufacturing and bring new investments into knowledge intensive services.

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<sup>19</sup> In this note, DOS data on "public investment in structures for services sectors" is used as a proxy for infrastructure investment. Services sectors include transport, storage, communications and utilities, and therefore the proxy includes roads, bridges, structure works for transportation such as double-tracking of rail tracks or building the MRT's structure, as well as structure works for public utilities (electricity, water and sanitation) and telecommunications.

### C. Progress update on structural reforms

**70.** In 2010, Malaysia embarked on a series of structural reform programs with the overall goal of transforming its economy towards a high-income, inclusive and sustainable nation by 2020. Under the umbrella of Vision 2020, the structural reform agenda consists of the New Economic Model (NEM), which identifies a group of key strategic reform initiatives (SRIs) which the NEM suggests should be “at the core of the ETP (Economic Transformation Programme)” (NEAC, p. 116). The implementation of the NEM combines cross-cutting structural reforms with actual projects, i.e. the ETP’s “entry point projects” (EPPs) and business opportunities under the 12 National Key Economic Areas (NKEAs). While the projects can catalyze economic transformation with targeted, strategic investments, the reforms—grouped under six SRIs – form the “foundation” of economic transformation that are needed to lock-in progress in creating an enabling environment conducive to higher productivity and private-sector led growth. Similarly, the initiatives under the Government Transformation Programme (GTP) may be best viewed as supporting the broader structural reform agenda rather than as ends in themselves.

**71.** While in the short-term, Malaysia seems to have weathered the headwinds caused by the 2008 global financial crisis relatively well, with an average GDP growth of 4.3 percent between 2008-2013, the nation’s longer term outlook and its prospects for significant transformation rests on the implementation of the structural reform agenda. Given that one-third of the time has passed between the launch of these programs and their ‘deadlines’ in 2020, questions arise regarding their progress. Is Malaysia on-track to becoming a high-income, inclusive and sustainable economy by 2020? How significant have the achievement of each of the programmes been? To what extent are measured performance indicators linked to desired results?

**72.** Of the three core transformation programs, the GTP seems to have gained the most traction. Recognizing that most of the outlined targets under the six National Key Result Areas (NKRAs) had been met or exceeded, the government stepped up the implementation of the GTP by releasing a second version of its Roadmap in June 2012, following a lab process similar to that preceding the first version of the GTP. The document outlines a continuation of most of the initiatives implemented under the first Roadmap and includes new measures intended to bridge certain gaps and refine implementation, with delivery targeted for 2015 (see Table 5).

**73.** A notable measure under GTP Roadmap 2.0, which both builds on the progress achieved under the first Roadmap and rectifies shortcomings in measurement is the Literacy and Numeracy Screening (LINUS) Programme under the Assuring Quality Education NKRA. Under the LINUS Programme, testing procedures have been refined to ensure that reported results truly reflect students’ actual knowledge. In addition, noting that the key performance indicators of the original LINUS program had been achieved, i.e., 97.5 percent of Primary 2 students meeting the required benchmarks compared to an original target of 95 percent, the GTP Roadmap 2.0 has outlined expansions to the program involving extending it for English language literacy as well as testing Primary 1 and 3 students.

**74.** Some of the targets in GTP 2.0 benefited from an audit of performance indicators, but there is room for more robust measurement of targets to reflect required results. Indeed, refining targets for NKRAs under GTP 2.0 reflects the challenging task of identifying the right data to measure public service delivery. This is particularly true of crime, where public perceptions appear at odds with statistics showing a reduction in crime since 2009, or corruption, where targets based on perception indicators were not met despite the implementation of a number of initiatives. In the case of crime statistics, public concerns regarding the recent rise of violent crime (which rose slightly from 14,811 to 15,098 cases in the first half of 2013 compared to the same period last year) do not seem to have been reflected in the drop in Index Crime (of which a subset is violent crime). Hence, there may be a case for refining the measurement of these ‘hard’ targets. In addition, while there may be a case for targeting the perception of private safety under the Reducing Crime NKRA in GTP 2.0, focusing on perception indicators raises concerns of a dilution of the actual target in favor of public relations, despite the maintenance of the original reported crime targets. On the other hand, perception targets can usefully complement ‘hard’ or process indicators, as long as they do not override the emphasis on meeting these ‘hard’ targets, such as the maintenance of targets to improve Malaysia’s Transparency International corruption perception rankings.

**75.** This however, highlights another area where GTP 2.0 could be improved, i.e., the absence of definite targets for some measures. The commitment to improve Malaysia’s Corruption Perception Index (CPI) ranking is a case in point:

while the GTP 2.0 Roadmap states that the ranking needs to be improved, and acknowledges that Malaysia had fallen from 29<sup>th</sup> position in 1995 to 60<sup>th</sup> position in 2011, it is unclear how Malaysia's performance in the CPI rankings should be compared in the absence of a stated targeted ranking. Furthermore, some interim performance measures do not adequately report progress towards end results. For example, while the Urban Public Transport NKRA targets an increase in the modal share of public transport from 12 percent to 25 percent of total transportation users, GTP Roadmap 2.0 only states a target for total number of public transport users (750,000) by 2015, with no mention of how this figure relates to the modal share.

**Table 5: Targets under GTP 2.0 build on earlier progress, but need to be refined and rigorously measured<sup>20</sup>**

NKRA	Measures under GTP 1.0 (2010-2012) New measures under GTP 2.0 (2013-2015)	Achievements as at December 2012
<b>Cost of Living</b>	<b>Supply outlets targeted at low-income earners</b> Development of Kedai Rakyat 1Malaysia (KR1M) Menu Rakyat 1Malaysia Klinik 1Malaysia Kedai Buku 1Malaysia Kedai Kain 1Malaysia(KK1M)  <b>Other indirect subsidies</b> PR1MA housing Kad Siswa 1Malaysia (discount cards for full-time students of institutions of higher learning)	<ul style="list-style-type: none"> <li>• In 2012, 4.8 million households and 2 million singles received cash assistance of RM500 and RM250, respectively – nearly 70 percent of households benefited, compared to original target of bottom 40 percent of households</li> <li>• Klinik 1Malaysia: As of 31st December 2012, a total of 168 clinics have been set up nationwide</li> <li>• KR1M: In 2012, a total of 59 shops have been set up nationwide</li> <li>• MR1M: As of 31st December 2012, a total of 3,228 restaurants are participating</li> </ul>
	<b>Cash transfers</b> Incentives for taxi drivers Cash assistance of RM 500 for households with income of RM 3,000 and below RM 100 cash assistance for school children from Year 1 to Form 5 nationwide. RM 100-200 book voucher to all Malaysian students 1Malaysia Rakyat's Welfare Programme (KARISMA)	
	<b>Special Funds</b> Special Housing Fund Commercial Agro Fund	
	<b>Crime</b>	
<b>Increasing Safety Perception Index</b> PDRM's Omnipresence Programme Black Spot Initiative Extending PDRM's Omnipresence Programme Community Policing PDRM Communications Unit Women's Awareness Campaign		<ul style="list-style-type: none"> <li>• 500+ CCTVs being installed</li> <li>• Mobilisation of police: 14,222 police mobilised into 50 hot spots</li> <li>• Deployment of RELA &amp; JPAM members:</li> <li>• 4,000 RELA &amp; JPAM members were deployed to the hotspots</li> <li>• 6,751 police officers were redeployed</li> <li>• Over 358,811 Rakan Cop Members (public) were activated</li> </ul>
<b>Arrest cases brought to trial</b> <b>Increasing the number of investigation papers brought to trial to 35 percent by 2015</b>		<ul style="list-style-type: none"> <li>• 34.7% of Investigation Papers (IPs) opened are brought to trial</li> </ul>
<b>Public satisfaction with police</b> Triage counseling rooms established in 39 police stations Balai League Table Sistem Semakan Online Outfitting all police stations with triage counseling		<ul style="list-style-type: none"> <li>• 65.7% of respondents are satisfied with PDRM service from 35.8%</li> <li>• 753 Balai Police ranked &amp; awarded</li> </ul>

<sup>20</sup> Latest developments extracted from <http://www.gtp.pemandu.gov.my>. Website last accessed 22 November 2013

NKRA	Measures under GTP 1.0 (2010-2012) New measures under GTP 2.0 (2013-2015)	Achievements as at December 2012
	units Reducing police response time from 15 to 8 minutes	
<b>Corruption</b>	<b>Enforcement Agency</b> Monitor compliance unit activities Monitor "Name and "Shame" Corporate Integrity System Malaysia Special Committee On Corruption to answer questions regarding MACC Annual Report in Parliament Executive Review Committee in MACC Project Management Office on Prevention Streamline oversight committee	<ul style="list-style-type: none"> <li>From 1 to 5, with 5 being extremely corrupt and 1 being least corrupt, the enforcement agencies were rated at 2.94.</li> </ul>
	<b>Grand Corruption</b> Complete prosecution of corruption cases within one year Whistleblower Protection Act 2010 Improve political financing governance framework Insertion of Corporate Liability Provision into MACC Act	<ul style="list-style-type: none"> <li>1172 offenders listed in database of convicted offenders</li> <li>96 individuals have been given protection under the Whistleblower Protection Act (as of 2012)</li> <li>14 special corruption courts operational. 404 cases processed (as of 2012) – GTP 2.0 does not state target percentage for cases processed out of cases reported</li> </ul>
	<b>Government Procurement</b> Implementation of comprehensive Integrity Pact for PPP projects Upgrading MyProcurement and integration with related procurement portals Project Management Office on Prevention Fast-tracking access to the Auditor General's Performance Audit Report Action Committee on Auditor General's report Auditor General's online dashboard Putrajaya Inquisition Guidelines for middle-men/lobbyists	<ul style="list-style-type: none"> <li>6,688 government contracts were published online (as of 2012) – GTP 2.0 does not state target percentage of contracts</li> <li>154 companies (as of 2012) signed the CIP</li> </ul>
	<b>Education and Public Support</b> Setting up of Corruption Prevention Secretariat in Teacher's Training College Training of Members of Parliament Incorporate anti-corruption element in textbooks in primary and secondary schools	<ul style="list-style-type: none"> <li>Overall Perception - Transparency International (TI) Corruption Perception Index 54<sup>th</sup> position in 2012 (from 60<sup>th</sup> in 2011). However, the target ranking has not been stated in GTP 2.0</li> <li>142,268 tendering for Government contracts have signed Integrity Pacts (as of 2012)</li> </ul>
<b>Rural basic Infrastructure</b>	<b>Rural Basic Infrastructure</b> 7,000 km of rural roads (3,147 km achieved) Access to piped water for 360,000 households (310,472 achieved) Electricity for 131,200 households (93,712 achieved) Housing for 50,000 households (50,000 achieved)	<ul style="list-style-type: none"> <li>1,553km roads constructed in West and East Malaysia in 2012</li> <li>187,567 houses in West and East Malaysia built and/or restored</li> <li>41,030 houses in West and East Malaysia provided access to clean and treated piped water for 2012</li> <li>22,085 houses in West and East Malaysia provided access to electricity in 2012</li> </ul>
	<b>21<sup>st</sup> Century Village</b> Establishing state-driven modern integrated farms Private sector-driven fruit and vegetable farms Enhancing village co-operatives	
	<b>Driving Youth Entrepreneurs</b> Annual business plan competition for youth, aimed at implementing 39 rural-based businesses arising from the competition by 2015	
<b>Urban public Transport (UPT)</b>	<b>Increasing modal share of public transport from 12 percent to 25 percent</b> Increase the morning peak ridership number to	<ul style="list-style-type: none"> <li>429,487 commuters took public transport in 2012, an increase by 47.9% from 2011 figures.</li> </ul>

NKRA	Measures under GTP 1.0 (2010-2012) New measures under GTP 2.0 (2013-2015)	Achievements as at December 2012
	750,000 by 2015 from 321,487 people in 2011.	
	<p><b>Increasing capacity of inter- and intra-city trains</b> Introduction of 35 four-car sets for the Kelana Jaya LRT line Increasing daily passenger capacity</p> <p><b>Enhancing the rail system</b> Enhancing KTM Komuter Extending the Kelana Jaya and Ampang LRT lines Expanding KL Monorail capacity</p>	<ul style="list-style-type: none"> <li>• Cumulative AM Peak Rail Ridership has shown improvement by 18.7% (235,640 commuters)</li> <li>• 35 new four-car train set for the Kelana Jaya Line are fully operational. Headway during AM Peak is now at 2.37 minutes</li> <li>• 37 new six-car train sets for the KTM Komuter service are fully operational. Headway during peak hours is now at 15 minutes</li> </ul>
	<p><b>Enhancing the bus experience</b> Upgrading of 1,102 bus stops in Sepang, Subang Jaya, Ampang Jaya, Selayang, Shah Alam and elsewhere Introduction of 470 RapidKL buses</p>	<ul style="list-style-type: none"> <li>• Total of 9 BET routes in operation with 478 new buses, With 547,669 passengers having taken the BET</li> <li>• Targeted corridor is the Klang - KL route</li> <li>• Rapidbus Expansion: 400 buses delivered as of October 2011</li> </ul>
	<p><b>Refurbishing and re-designing Pudu Sentral</b></p>	<ul style="list-style-type: none"> <li>• Completed in 2011</li> </ul>
	<p><b>Integrated Terminal Bersepadu Bandar Tasik Selatan (Transport Terminal)</b></p>	<ul style="list-style-type: none"> <li>• Reduced 500 buses from Pudu Sentral</li> </ul>
	<p><b>Enhancing the integration of the UPT system</b> Park 'n' ride Bike facilities Walkways/bus stops/feeder services Effective integration of bus and rail services "Pedestrianisation" for last-mile</p>	
	<p><b>UPT enabling project</b> Reviewing public transport fares in the Greater Kuala Lumpur/ Klang Valley Set up a bus driver's academy to build numbers and enhance performance Create a joint enforcement task force to monitor the UPT system Establish a watching brief for public transport initiatives elsewhere in the country Revitalising Greater Kuala Lumpur through the introduction of car-free zones</p>	
	<p><b>Transforming Malaysia's taxi system</b> Implementation of centralized taxi service system Introduce a new taxi business model</p>	
	<p><b>Managing travel demand</b> Enhancing parking control and management Implementing journey planners</p>	
<p><b>Low income households</b></p>	<p><b>Managing poverty cases</b> Utilize e-Kasih database system to monitor and manage low-income households Introduction of the 1AZAM programme to provide economic opportunities for low-income households Expanding the e-Kasih database Ensuring a more granular and targeted 1Azam programme Extensions to 1AZAM: 1AKRAB, a mentoring programme, clear criteria for 'second chances'</p>	<ul style="list-style-type: none"> <li>• A total of 106,967 households are participating in the 1Azam programme. (2010-2012)</li> </ul>
	<p><b>Moving households into higher income categories</b> Reducing households in the extreme poor category by 99.6 percent Reducing the number of poor households by</p>	<ul style="list-style-type: none"> <li>• A total of 109,050 people have been upgraded to "terkeluar" (out of poverty) status. 89% of them were due to increased income.</li> </ul>

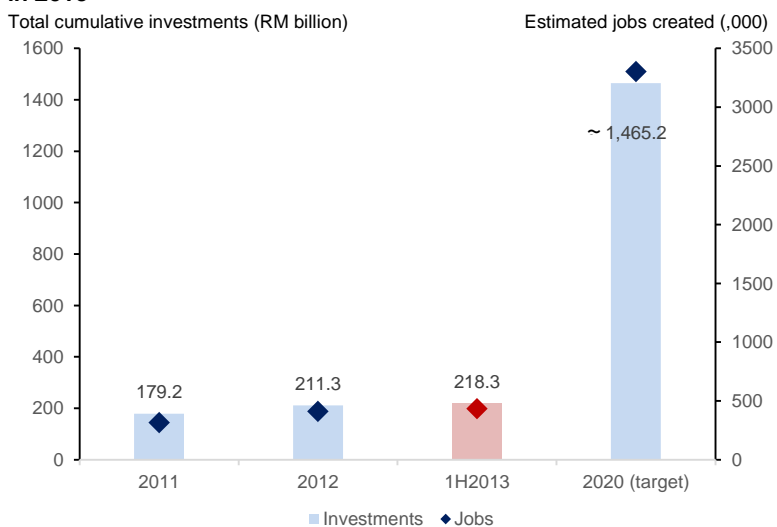
NKRA	Measures under GTP 1.0 (2010-2012) New measures under GTP 2.0 (2013-2015)	Achievements as at December 2012
	15,868 <b>Introducing innovative and sustainable opportunities</b> <i>Work voucher scheme</i> <i>Department of Women's Home Managers Programme</i> <i>Branchless banking</i> <i>Micro-sourcing</i> <i>Agriculture support for Orang Asli communities</i>	
	<b>Providing entrepreneurship and skills training</b> <i>Training provided for 3,900 women entrepreneurs</i>	
	<b>Enhancing social support to enable economic development</b> <i>Enhancing the insurance scheme for IAAM participants</i> <i>Enhancing shelters for the homeless via Anjung Singgah</i> <i>Home help for vulnerable groups</i> <i>Ferry in Temenggor for Orang Asli community</i> <i>Expand education initiatives to improve Orang Asli well-being</i>  <b>Enhancing delivery of health services and housing, as well as nutrition levels in the interior</b> <i>Improving health and housing facilities for the Orang Asli and Penan community, including nutrition programmes</i>	<ul style="list-style-type: none"> <li>• 1,200 women entrepreneurs trained in 2012</li> </ul>
	<b>Increasing home ownership for poor households</b> <i>Providing 35,095 low-cost homes under Projek Perumahan Rakyat and Perumahan Awam</i>	<ul style="list-style-type: none"> <li>• Home ownership by poor households increased to 4,865 over the last three years (2010-2012)</li> <li>• Rumah Mesra Rakyat 1Malaysia: 2,010 homes built for poor households</li> </ul>
	<b>Engaging NGOs and other community organizations</b> <i>Expedition of tax exemptions for NGOs</i> <i>Establish awareness campaigns and NGO resource matching</i>	
Assuring Quality Education	<b>Increasing pre-school enrolment rates</b> <i>Harmonize support for government pre-schools</i> <i>Improve and harmonize quality of teachers and teacher assistants across all government pre-schools</i> <i>Increase the number of pre-school classes in urban (poor), rural and remote areas via Public-Private Partnerships</i> <i>Ensure national standards for pre-school and childcare</i> <i>Upskilling of pre-school teachers</i>	<ul style="list-style-type: none"> <li>• Approximately 150,000 children are benefiting from new / additional 6,643 pre-school classes, with 80.5 percent enrolment in pre-school compared to a 2015 target of 92 percent</li> </ul>
	<b>LINUS</b> <i>LINUS for Bahasa Malaysia literacy</i> <i>LINUS screening (9 screenings for Years 1-3, with 3 screenings per year)</i> <i>Training of remedial teachers</i> <i>Students assessment levels – Construct 8 (Literacy) and Construct 10 Numeracy)</i> <i>LINUS for English literacy from Years 1-3</i> <i>6 screenings for Years 1-4, with 2 screenings per year</i> <i>Achieve 12 constructs to re-enter mainstream curriculum</i>	<ul style="list-style-type: none"> <li>• 99.84% literacy rate and 99.92% numeracy rate</li> </ul>
	<b>New Deals (Principal and Teacher Performance)</b> <i>Annual reward for principals and teachers in top performing schools and most-improved schools</i> <i>Rewards tied to school overall and individual</i>	<ul style="list-style-type: none"> <li>• 5.5% of Head Teachers and Principals exceeded target in 2012</li> </ul>

NKRA	Measures under GTP 1.0 (2010-2012) New measures under GTP 2.0 (2013-2015)	Achievements as at December 2012
	performance Principals receive RM7,500. Top 5% Teachers receive RM1,800 and 95% receive RM900 <i>Link with new Principals and Teachers charters</i>	
	<b>School Improvement Programme (SIP)</b> School rankings and banding Teacher coaches (SISC) and Principal (SIP) coaches School improvement action plan <i>Extend SIP and SISC coaches to be full time in State (JPN) and District (PPD) Improvement Programme</i>	<ul style="list-style-type: none"> <li>• 44% decrease in Bands 6 &amp; 7 schools and 27% increase in Bands 1 &amp; 2 schools compared to targets of reducing Bands 6 &amp; 7 schools by 20% and increasing the number of high performing schools by 8%</li> </ul>
	<b>High Performing Schools (HPS)</b> Expand number of HPS from 66. <i>Focus on quality control of HPS and ensure autonomies are fully utilized</i>	<ul style="list-style-type: none"> <li>• 91 HPS overall compared to a target of 100 minimum HPS by 2015</li> </ul>

Source: PEMANDU.

76. In terms of the ETP, several large-scale projects linked to the Programme have kicked off, notably construction of the Klang Valley Mass Rapid Transit (MRT) under the Greater KL NKEA and oil and gas projects linked to the Pengerang Integrated Petroleum Complex. The number of EPPs listed under the ETPs has also increased from the original 121 to 152 identified as of the first half of 2013, with 149 already announced. According to PEMANDU, between January and June of this year, 33 projects under the twelve NKEAs have been announced, potentially contributing investments of RM7.04 billion and the creation of 25,825 jobs by 2020. Within the ETP framework, this brings the total value of committed investments and potential job creation to RM218.3 billion and around 434,000 respectively (Figure 54) against 10 year targets of RM1.5 trillion and 3.3 million jobs.

**Figure 54. Investments committed under the ETP grew more slowly in 2013**



Source: PEMANDU.

77. Furthermore, projects announced under the ETP seem to be expanding away from those linked to the real estate or commodities sectors, with 35.5 percent of the total committed investments in the first six months of the year comprising those from the agriculture, healthcare, education and business services NKEAs. In addition, committed investments in palm oil during this period indicate either a movement up the value chain for the sector, in the case of a RM85.8 million investment in a chemical ester plant, or horizontal integration with a total RM103.7 million committed to investments in cattle integration in palm oil estates by three plantations companies. The absence of commitments

to oil and gas projects thus far in 2013 on the other hand, are likely because most of the investments in this sector have been committed to already, given their long gestation period. Meanwhile, there have been no committed investments under the E&E NKEA. While this does not necessarily mean that there have been no private investments in this sector (there were, as seen in the earlier note), this seems to signal some concerns given that ETP investments are focused on more transformational and higher value-added activities.

**78.** It is not possible at this time to relate the investment boom highlighted in the previous issue note with the ETP. As of end-2012, about RM11.4 billion of investments had been realized, representing about 4.7 percent of GFCF. However, the objective of ETP investments is to serve as catalysts for broader growth, and therefore a more thorough impact evaluation is required to understand the links between the ETP and the broader improvement in investments.

**79.** With respect to structural reforms under the ETP, performance is mixed. Malaysia has undertaken steps towards implementing more substantive measures. These include the introduction of a minimum wage, the announcement of the GST, as well as enactment of the competition act. In addition, PEMUDAH's efforts at improving the business environment continues to bear fruit, with Malaysia jumping from 12<sup>th</sup> to 6<sup>th</sup> position in the World Bank's 2014 Doing Business rankings, partly on the back of reforms to improve the ease of obtaining construction permits.

**80.** Other measures however, have achieved less notable progress, an example being planned reforms in the public sector. Although the new civil service remuneration scheme (SBPA) had been cancelled in 2012, no substitute scheme has been announced aimed at the critical but difficult task of modernizing the civil service. It should also be noted that although the New Economic Model highlighted that the transformation of the Public Service Commission would be essential to efforts in reforming Malaysia's public service, there is limited information on plans for such reforms. In addition, while the government announced that each Ministry would undergo a transformation plan in the 2014 Budget, details of these plans, or their links to the other transformation programs, have yet to be released.

**81.** Furthermore some of the measures embedded under the SRIs may not adequately address all reforms required for arriving at the actual outcomes of interest. For instance, although most of the sub-sectors targeted for liberalization (save for two sub-sectors) have been liberalized and their business processes documented, the target itself does not capture the requirement to modernize domestic regulations, arguably a larger hindrance to the performance of the services sector than 'at the border' measures. This runs contrary to the message of the NEM, which correctly emphasized 'behind the border' reforms alongside liberalization as part of the competition promotion agenda.

**Table 6: Progress on the SRIs has generally been incremental, with a few substantive reforms planned**

SRI	Main policies	Latest developments (January – November 2013)	Comments
<b>Competition, Standards &amp; Liberalization</b>	Competition Act 2010	<ul style="list-style-type: none"> <li>Since the law came into force on 1 January 2012, the Malaysian Competition Commission (MyCC) has issued two landmark rulings:               <ul style="list-style-type: none"> <li>A RM10 million fine each for Malaysia Airlines and Air Asia for violating the Competition Act 2010.</li> <li>The Cameron Highlands Floriculturist Association was instructed to cease and desist price fixing of flowers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The record of enforcement of the law, particularly with respect to GLCs and consumer protection, remains critical to its effectiveness.</li> <li>MyCC also needs to expand its capacity. Its current headcount is 27 (as of October 16, 2013)<sup>21</sup></li> </ul>
	Multiple standard development agencies	<ul style="list-style-type: none"> <li>Accelerated timelines were applied to all new standards developed during the past year.</li> <li>Following amendments to the Standards Act 1996 which were gazetted in 2012, Standards Malaysia is targeting to appoint two new Standards Development Agencies</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of the amendments is ongoing.</li> </ul>

<sup>21</sup> "MyCC's uphill battle to protect consumers", The Sun Daily newspaper, 16 October 2013



SRI	Main policies	Latest developments (January – November 2013)	Comments
		<p>(SDAs). The SDA accreditation criteria have been endorsed by the National Standards Council.</p> <ul style="list-style-type: none"> <li>• The Standards Utilization Dashboard was developed to monitor the use of standards by Entry Point Projects.</li> <li>• The national eco-label scheme (MyHijau) was launched.</li> </ul>	
	Services sectors liberalization	<ul style="list-style-type: none"> <li>• As of November 2013, the remaining two sub-sectors which had yet to be liberalized out of the 17 listed in Budget 2012 remain un-liberalized. These are the architecture, and engineering and quantity surveying services.</li> <li>• An action plan to address regulatory concerns for four sub-sectors - health travel, technical and vocational education and training, private higher education and renewable energy – was developed. Implementation is scheduled for 2013.</li> <li>• MIDA has published an investment guidebook for investment in services in Malaysia which includes business processes for 18 services sub-sectors, including those recently liberalized.</li> </ul>	
Public Finance	Accrual accounting	<ul style="list-style-type: none"> <li>• The Accrual Accounting Steering Committee has approved new accrual-based accounting policies drafted for the development of the new accrual-based accounting system scheduled for implementation in 2015.</li> <li>• The new policies have also been endorsed by the Government Accounting Standards Advisory Committee, and include the general provisions, policies on the recognition, measurement and disclosure of Revenues, Expenses, Assets, Liabilities and Net Asset/Equity.</li> </ul>	
	Transparent procurement	<ul style="list-style-type: none"> <li>• E-bidding's original threshold value was reduced from RM200,000 to RM50,000 for the procurement of goods and services and implemented in April 2011; savings estimated at RM 26.01mn as at 31 December 2012.</li> </ul>	
	Improve Tax Collection	<ul style="list-style-type: none"> <li>• Royal Malaysian Customs recorded additional tax collection of RM244.72 million, 47 percent higher than the RM166 million targeted for collection during the year.</li> </ul>	<ul style="list-style-type: none"> <li>• The largest improvements in tax collection have not been attributed to SRI-related measures.</li> </ul>
	Implementation of GST	<ul style="list-style-type: none"> <li>• GST implementation is scheduled for 2015, as announced in the 2014 Budget Speech, at a rate of 6 percent. It will be accompanied by a 1 percentage point cut in corporate tax rates as well as changes in the structure of personal income tax. Basic food items and essential services will be zero-rated.</li> </ul>	<ul style="list-style-type: none"> <li>• While the implementation of the GST will likely broaden the tax base, the impact will be tempered by the structural adjustments to the income tax, which is estimated to narrow the tax base by a further 30,000.</li> </ul>

SRI	Main policies	Latest developments (January – November 2013)	Comments
	Expenditure control	<ul style="list-style-type: none"> <li>Consolidation is proceeding at a moderately faster pace after the general elections, with growth in personnel expenditure decelerating in the 2014 Budget. It is also likely that there will be more cuts to fuel subsidies next year following the cuts implemented in September 2013.</li> </ul>	<ul style="list-style-type: none"> <li>Similarly, the impact of fuel subsidies cuts will be tempered by the expansion of BR1M.</li> </ul>
	Business Process Reengineering	<ul style="list-style-type: none"> <li>A total of 49 licenses have been identified to be abolished, of which nine were abolished during the year and 19 licenses are under review for abolishment, expected to be completed by the end of 2013.</li> </ul>	<ul style="list-style-type: none"> <li>Malaysia continued to improve its Doing Business rankings, moving from 12<sup>th</sup> to 6<sup>th</sup> position for the 2014 Indicators.</li> </ul>
<b>Public Service Delivery</b>	Real-time performance monitoring & counter rating system	<ul style="list-style-type: none"> <li>Piloted at the Selangor Police Station in 2011, the rating counter system is now available at all police stations nationwide.</li> <li>The system was expanded to these Government departments and agencies – Kuala Lumpur City hall (DBKL), Putrajaya Corporation, Labuan Corporation, and selected National Registration Department and Immigration Department branches.</li> <li>In August, an improved remuneration package was introduced to attract top-notch Human Resource specialists to become Service Commissioners.</li> <li>Members of the Joint Committee meet regularly to discuss human resources planning and policies across Government agencies and departments</li> </ul>	
	Increase the talent pool in the civil service	<ul style="list-style-type: none"> <li>SBPA was announced in Budget 2012.</li> </ul>	<ul style="list-style-type: none"> <li>SBPA remains postponed indefinitely.</li> </ul>
<b>Human Capital Development</b>	Modernize labor legislation	<ul style="list-style-type: none"> <li>The Minimum Wage Order was gazetted on 16 July and enforced on 1 January, 2013 for employers with more than five employees and 1 July, 2013 for employers with five employees and less, setting a minimum salary of RM900 for workers in Peninsular Malaysia and RM800 for workers in Sabah and Sarawak.</li> <li>The Minimum Retirement Age Act 2012 was gazetted on 16 August and will be enforced on 1 July, 2013.</li> </ul>	<ul style="list-style-type: none"> <li>Although the Minimum Wage Act entered into force on 1 January 2013, a number of firms have been allowed to request deferment of implementation on a case-by-case basis.</li> </ul>
	Upskilling, reskilling and upgrading the workforce	<ul style="list-style-type: none"> <li>Upskilling manpower initiatives remain focused on the oil, gas and energy NKEA.</li> </ul>	<ul style="list-style-type: none"> <li>Measures are helpful, but fall short of providing a structural shift in the skills of the labor force. They also remain limited to one NKEA.</li> </ul>
	Strengthen human resource management	<ul style="list-style-type: none"> <li>Since the National Human Resources Centre was established in February 2012, 7,301 SME employees have been trained in human resources</li> </ul>	

SRI	Main policies	Latest developments (January – November 2013)	Comments
		management.	
	Leverage on women's talent to increase productivity	<ul style="list-style-type: none"> <li>• Under the Women Directors Programme by the National Institute of Empowerment of Women, 520 women have been trained to become directors in PLCs.</li> <li>• 5,411 child-minders were trained and 1,099 childcare centers were registered with the Welfare Department of the Ministry of Women, Family and Community Development (MWFCD).</li> <li>• Companies re-employing women professionals on a career break beginning 2013 have been offered a double tax deduction.</li> </ul>	
	Undertake a labor market forecast and survey program	<ul style="list-style-type: none"> <li>• ILMIA (Institute for Labour Market Information and Analysis) completed a number of labor market analyses during the year, including: <ul style="list-style-type: none"> <li>○ Labor market analyses on the manpower requirements of the Business Services, Tourism and Healthcare NKEAs, including studies on wage structures and policies and programmes for employment and upskilling as part of the ETP;</li> <li>○ Studies on the Labour Market Information Data Warehouse, Manpower and Economic Development Integrated System and the National Employment Return; and</li> <li>○ A Green Jobs Mapping Study and a study on Developing Skills for Innovation and High-Income Economy in Malaysia in collaboration with the International Labour Organisation and the World Bank, respectively.</li> </ul> </li> </ul>	
	Enhance labor safety net by introducing unemployment insurance (UIS)	<ul style="list-style-type: none"> <li>• MOHR has appointed the ILO to undertake a comprehensive study and to propose recommendations on the design of the UIS. The project is now in Phase 2.</li> </ul>	
<b>Government's Role in Business</b>	Divestment from GLCs through listing, paring down of stakes or outright sale	<ul style="list-style-type: none"> <li>• Established in 2012, the Ministry-Level Divestment Plan identified nine companies under four Ministries that are ready for divestment from 2012-2016.</li> <li>• Johor was identified as a pilot state for the State Government Divestment Plan, with Johor Corporation Bhd (JCorp) and PEMANDU having commenced preliminary talks on streamlining JCorp's core businesses to focus on palm oil plantations, healthcare, property and the food industry. To-date, JCorp has completed corporate exercises including: <ul style="list-style-type: none"> <li>○ Its privatisation of KFC Holdings (M) Bhd and QSR Brands Bhd.</li> <li>○ Kulim (M) Bhd's exit of its retail food</li> </ul> </li> </ul>	

SRI	Main policies	Latest developments (January – November 2013)	Comments
		business. Kulim is now considering disposing some of its hotel assets and reinvesting the funds into its hospitality business.	
<b>Narrowing Disparity</b>	TeraS (High Performing Bumiputera Companies) to identify 1,100 high-performing Bumiputera companies with potential for growth, and to help them grow beyond the Malaysian market.	<ul style="list-style-type: none"> <li>• 300 companies have been identified for the TeraS scheme.</li> <li>• The Working Capital Guarantee Scheme (WCGS), available to SMEs and all TeraS companies, was extended to 31 December 2013 from its initial expiry of 2011.</li> </ul>	<ul style="list-style-type: none"> <li>• The government announced the Bumiputera Economic Empowerment Plan (BEEP) in September 2013, which commits RM30 billion towards Bumiputera-focused initiatives, with measures ranging from upskilling to incentives for property ownership by Bumiputeras.</li> <li>• While the effectiveness of these measures in reducing economic disparity depends on the details of their implementation, in principle they seem to be an extension of the New Economic Policy (NEP), and may negate some of the principles of the New Economic Model</li> </ul>
	<i>Skim Jejak Jaya Bumiputera</i> – aimed at facilitating greater Bumiputera corporate equity	<ul style="list-style-type: none"> <li>• Seven companies were listed on Bursa Malaysia – Datasonic Group Bhd, Prestariang Bhd, Century Software Holdings Bhd, Cypark Resources Bhd, Malaysian Genomics Resource Centre Bhd, Handal Resources Bhd, and Theta Edge Bhd.</li> </ul>	

**82.** In other cases, implementation seems to have been diluted by other measures undertaken by the government. Although there have been high-profile divestments of Government-Linked Companies (GLCs) such as Proton, PLUS and PosMalaysia since the inception of the ETP in 2010, the government has also invested in more companies, some of which are involved in sectors typically deemed privately competitive. Examples of these include the purchase of large stakes in Burger King and San Francisco Coffee—both food and beverage brands—by Ekuinas, the Malaysian government's private equity fund management company, as well as 1MDB's purchases of two independent power producers (IPPs).

**83.** These examples illustrate that Malaysia's structural reform agenda needs to move beyond measures encapsulated by the GTP and ETP. While these transformation programs have been effective in implementing measures with specific targets such as the LINUS program or the expansion in pre-school enrolment, significant structural reforms like public service transformation and transforming the quality of education requires broader efforts.

### 3. HIGH-PERFORMING EDUCATION

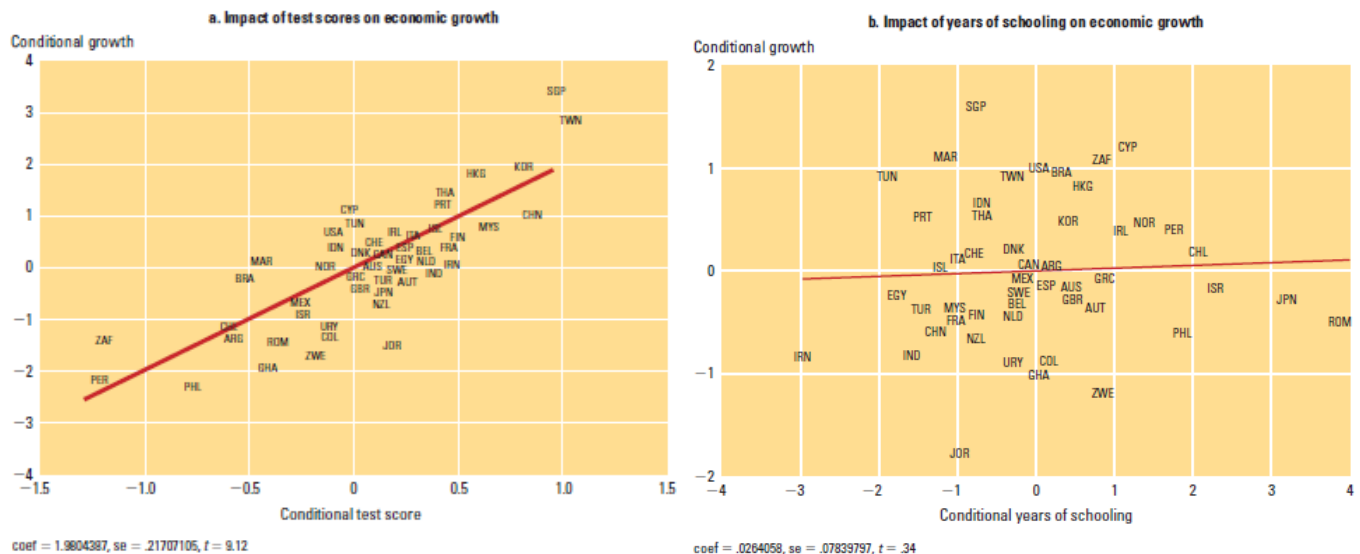
**84. Education is a cornerstone of Malaysia's economic transformation.** Having highlighted, in the first two chapters of this economic monitor the near- and medium-term factors that will impact the trajectory of Malaysia's economy, the final part of this report will elaborate on a lynchpin of Malaysia's transformation into a high-income, sustainable and inclusive economy: ensuring Malaysia has a high-performing education system.

#### High income, inclusive economies have high-performing education systems

**85. A nation's human capital, which is largely built by its education system, is a fundamental driver of economic growth.** Education systems build cognitive skills, equipping workers with knowledge that makes them more productive and allows innovations to emerge. From basic literacy to advanced engineering, the knowledge transmitted in schools is critical for a society's economic and social progress. In addition, economists have recently started to learn the importance of non-cognitive skills (such as teamwork, leadership and communication) for individual success in labor markets and overall productivity growth. Although non-cognitive skills cannot always be taught, they are often greatly influenced by formal schooling.

**86. Both the quantity and quality of education matter.** Access to schooling is a necessary, but insufficient, condition for building human capital that will propel economic growth. In addition to ensuring the system has the broadest possible coverage (quantity), the *quality* of education is perhaps even more critical. Hanushek and Woessman (2007) argue that growth is more closely correlated with measures of quality (test scores) than quantity (years of schooling; Figure 55). The quality of education can be summarized as the extent to which students are actually acquiring the cognitive and non-cognitive skills that are required for social and economic development. Quality may be measured by test scores, labor market outcomes, and whether the system is delivering other desirable outcomes (e.g. non-cognitive skills such as teamwork, and broader objectives such as social cohesion).

**Figure 55. It is the quality, not quantity, of education that drives economic growth**



Source: Hanushek and Woessman (2007).

**87. Inclusive growth requires equitable access to quality education.** The education system can dampen or amplify socio-economic inequalities. Education matters for incomes not only at the macroeconomic but also at the individual level, as labor markets rewards workers with higher levels of education with higher wages. If children from poor families have access to excellent education, they can expect to earn higher incomes than their parents, breaking the poverty cycle. On the other hand, lack of access will lead those born in poor households to lower-paying jobs

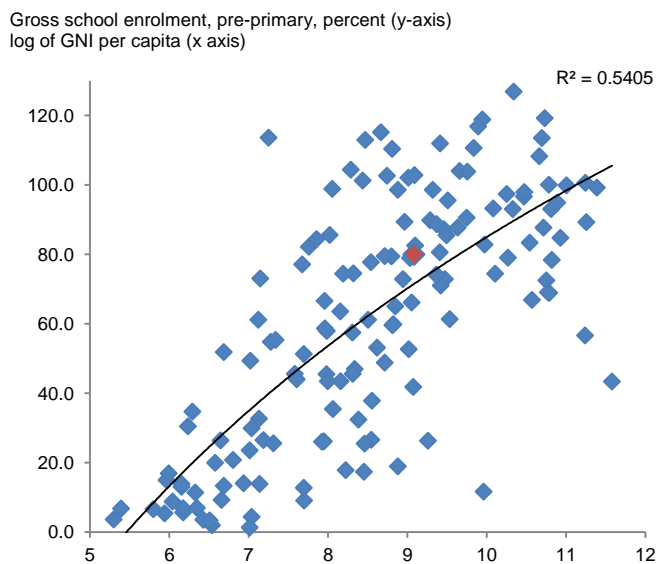
and low incomes, perpetuating poverty. In addition to equity along income lines, equity along gender, ethnicity and geography is also necessary for growth to be inclusive. As with the link between education and economic growth, equality of access to education is necessary but ultimately insufficient; equality of access to *quality* education is the critical factor in promoting equality of opportunities in a society.

**88. A high-performing education system is therefore one characterized by coverage, quality and equity.**

- **coverage:** is every child in school?
- **quality:** are children learning, and what can they do with what they learn?
- **equity:** are children of every income level, ethnic group, gender and geographical area able to access quality education?

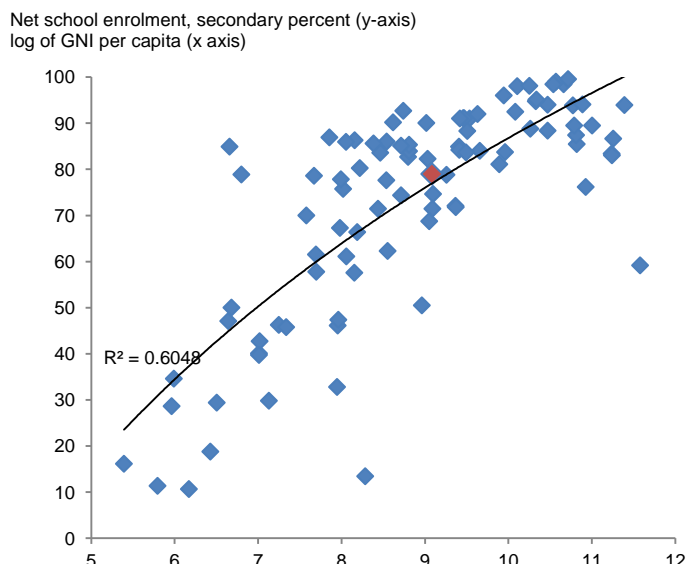
**89. Malaysia's education system has achieved extensive coverage.** Enrolment at the primary level has been nearly-universal for decades while secondary enrolment has also expanded rapidly, with the share of the labor force with a secondary education increasing from 37 percent in 1982 to 58 percent in 2012. Gender and ethnic gaps in primary and lower-secondary enrolment were largely closed by the mid-1980s. The rapid expansion and early investments in education played an important role supporting Malaysia's impressive growth performance, with increases in human capital estimated to contribute about 1/3 of GDP growth between 1971 and 1997 (Ghani and Suri, 1998). Currently, while challenges remain at the pre-primary and secondary levels, enrolment rates are in line and even slightly above what would be expected for a country of Malaysia's income level (Figure 56 and Figure 57). In particular, as evidence has mounted on the importance of pre-primary education, enrolment has expanded by over 10 percentage points in just the past five years, reflecting the ability of the system to be transformed within a short period of time.

**Figure 56. Enrolment rates in pre-primary...**



Source: World Development Indicators (WDI), PEMANDU  
 Note: Most recent data between 2008 and 2012

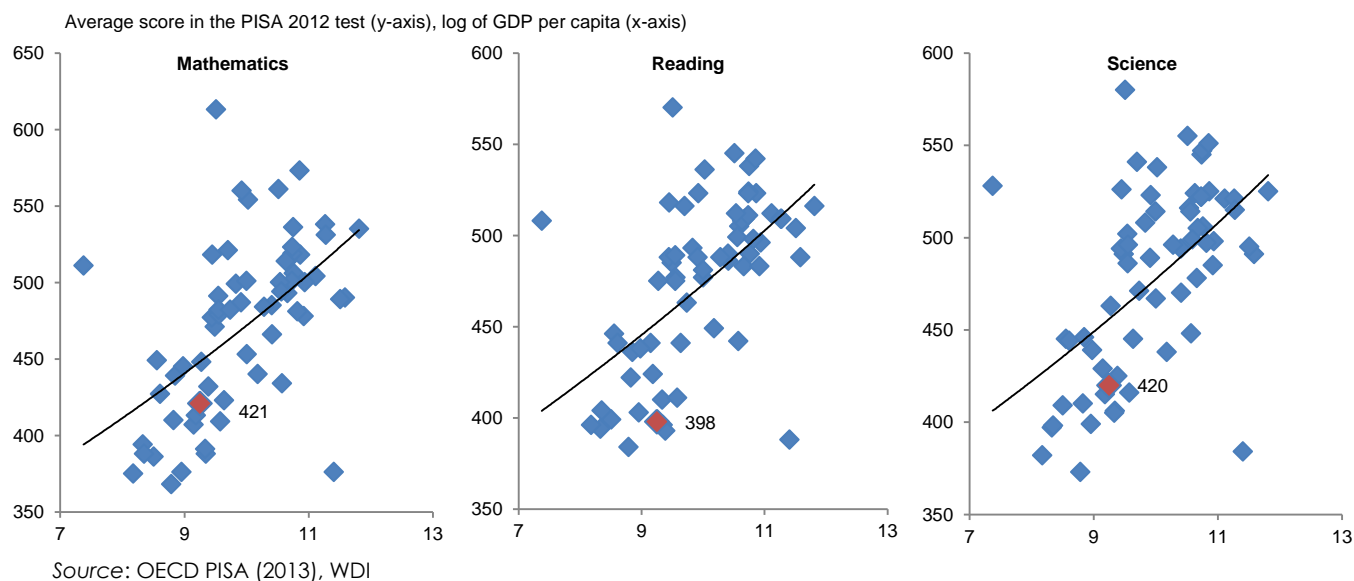
**Figure 57. ... and secondary levels are above average given Malaysia's income level**



Source: WDI, World Bank staff calculations.  
 Note: Most recent data between 2008 and 2012

**90. The key challenge is to significantly improve the quality of education.** Malaysia's performance in standardized international student assessments is below what would be expected of a country with its income per capita ( ) or level of educational expenditures, and well below the performance of the high-income economies that Malaysia aspires to compete against for innovation and knowledge-based investments. Moreover, performance appears to have deteriorated over the past decade. The level of English proficiency is widely perceived to have declined over time, a hypothesis that is supported by data on English teacher proficiency. The disproportionate share of post-secondary graduates among the unemployed further suggests that the education system is not producing the skills sought by the labor market. Meanwhile, schools have become more segregated in the past forty years, decreasing their potential to contribute towards greater social cohesion.

**Figure 58. Performance in test scores is below what would be expected given Malaysia's income level**



**91. The education system is fairly equitable, especially with respect to access to basic education.** Relatively small gaps are observed along ethnic, income, gender or geographic lines with respect to access to pre-primary, primary and lower secondary education. Nevertheless, students from higher socio-economic backgrounds form a disproportionate share of those enrolling in post-secondary education. Inequality of learning outcomes is also not elevated, but remains higher than in aspirational countries such as Korea or Finland.

**92. The New Economic Model (NEM) and the 10<sup>th</sup> Malaysia Plan recognize the importance of building human capital to achieve inclusive and sustainable economic growth.** The NEM notes that “a quality education system which nurtures skilled, inquisitive, and innovative workers to continuously drive productivity forward is the foundation of sustained economic growth” (p. 20), but worries that “(e)ven with the Government pouring relatively high spending into public education, the quality of graduates (...) has simply not kept pace” (p. 42). The NEM advocates “review(ing) the education system” and “improv(ing) autonomy and accountability of education institutions” (p. 20). Chapter 5 of the 10<sup>th</sup> Malaysia plan, which supports the implementation of the NEM, is dedicated to improving education and skills. Many of the initiatives were incorporated into the National Key Results Area on education, and include measures to increase school accountability, improve teacher quality, and expand enrolment in pre-primary education. A number of measures under the 10<sup>th</sup> Plan and the Government Transformation Programme (GTP), notably those related to expanding pre-primary enrolment and improving the measurement of student performance in early years have been largely implemented with positive results.

**93. The Government has recently launched the Malaysia Education Blueprint to chart the course of education reform over the next decade.** The Blueprint, launched in September 2013, anticipates eleven shifts to transform Malaysia’s education system by 2025, among them transforming the teaching profession into a profession of choice, empowering state and district education offices and schools, and promoting greater parent and community involvement. The Blueprint is candid and comprehensive about the challenges faced by Malaysia’s education system and proposes thoughtful and wide-ranging solutions. Importantly, the Blueprint establishes clear performance benchmarks (“system aspirations”) that will help measure progress of the reforms.

**94. To boost the performance of its education system and reach its goal of becoming a high-income nation, Malaysia may consider accelerating the pace of governance reforms in education.** Based on an assessment of the drivers of the current performance of the system, two main policy thrusts need to be pursued with vigor and urgency: increasing in parallel both school-level accountability and decision-making, and transforming the teaching profession to significantly upgrade the quality of teaching. A number of additional policies, most of which are already anticipated in the Education Blueprint, can complement these two policy thrusts, but given Malaysia’s high and

increasing spending on education against declining enrolments and deteriorating test scores, it is clear that additional inputs will not be sufficient to improve results. Rather, fundamental reform of the governance of the education system is needed to change the incentives of administrators, teachers, parents and students, allowing difficult choices to be implemented and reorienting outcomes towards excellence for all.

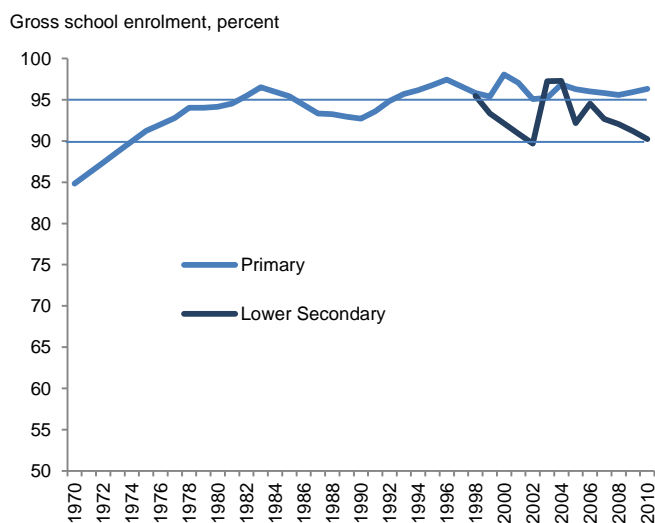
**95. This chapter is organized along three main sections: the first establishes stylized facts about the performance of Malaysia's education system** along the dimensions of coverage, quality and equity. While gaps are identified in post-secondary enrolment, the focus of the chapter is on basic (primary and secondary) education. **The second part investigates the drivers of performance.** It identifies the system's centralized governance structure and the shortcomings in the recruitment of highly-qualified teachers as the key obstacles to quality. **The third part discusses policy options to boost performance** focusing on international experiences with greater accountability and autonomy at the school level, as well as with teacher recruitment and training.

## System performance: big achievements in coverage, larger challenges on quality

### Are children in school?

**96. The coverage of Malaysia's basic education system is comprehensive, with near-universal primary and lower-secondary enrolments.** Access to primary schooling has been nearly universal since the early 1980s (Figure 59) and as of 2012 less than 2 percent of students between 7 and 12 year of age are estimated to be out of school. Gross enrolments in lower secondary education are estimated to stand at nearly 100 percent in 2012, while net enrolments in lower secondary education are estimated to have increased from 87.1 percent to 96.4 percent between 2004 and 2012.<sup>22</sup> Among children between 7 and 16, fewer than 3 percent are estimated to be out of school as of 2012.

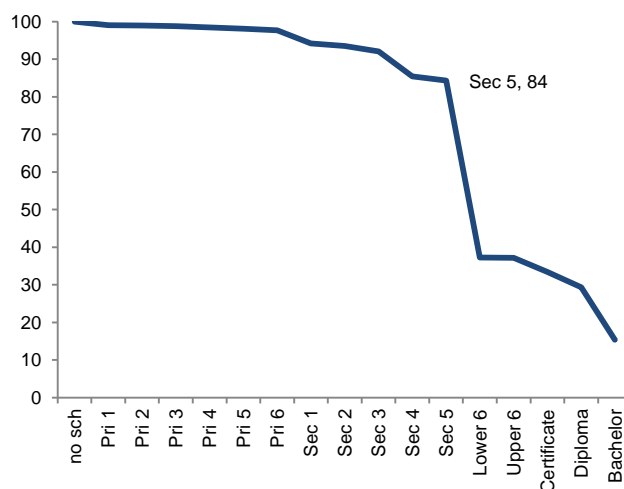
**Figure 59. Enrolment at the primary and lower secondary levels have been above 90 percent**



Source: UIS

**Figure 60. Most young Malaysians have at least a secondary education**

Educational attainment among education completers 25-29 years old in Malaysia, 2012, percent



Source: DOS (2012 HIS) and World Bank staff calculations

**97. Consistently high enrolment rates in basic education means that over 90 percent of Malaysian young adults completed at least lower secondary education.** Figure 60 presents the educational attainment profile in 2012 of young adults aged 25-29 who have completed their education at the time of the 2012 Household Income Survey (HIS). Several features of the chart are worthy of note. First, consistent with almost-universal primary enrolment over decades, only 0.9 percent of young adults have no schooling and 97.7 percent completed primary education (Year 6). Of those who complete primary education, 96.5 percent continued to secondary school (i.e. 94.3 percent of the

<sup>22</sup> Unless otherwise indicated, enrolment data in this report are estimates based on household income surveys, and may not necessarily match the census-based official enrolment data reported to UNESCO.



cohort completed Form 1), and 92.1 percent completed lower secondary education (Form 3). Looking at the overall labor force, 80 percent have at least some secondary education as of 2011.

**98. Official enrolment statistics likely underestimate the number of children of secondary school-age who are in school.** The net enrolment rate in secondary education reported by Malaysia to UNESCO was 68.6 percent as of 2010, whereas estimates using data in the 2012 Household Income Survey suggest that 79.1 percent of adolescents between 13 and 19 years of age are studying (Table 7). This discrepancy is likely due to Malaysia's secondary system where the last two years of formal secondary school (lower and upper Form 6) comprise of a pre-university track.<sup>23</sup> Many children opt instead for a vocational curriculum or matriculation schools, which are not classified as secondary education, or may enroll in religious, private or international schools, which may not adequately report enrolment rates, or which do not follow an approved secondary-level curriculum. Parents of these children of secondary school-age are likely to report them as "students" for the purpose of the HIS, even though they would not be counted in the official enrolment statistics. Corroborating the argument that the seemingly low enrolment rates are due to Form 6, enrolment up to Form 5 in 2011 is estimated at 82.7 percent based on enrolment data on national schools (which may be a small underestimate as it excludes students in some private and religious schools), and a similar share of the cohort of 17 year-olds registered to take the Malaysian Certificate of Education (SPM) (see Table 8).<sup>24</sup> Similarly, among the cohort of young adults in Figure 60, around 84.4 percent completed Form 5.

**Table 7. Enrolment rates estimated through HIS vs. UNESCO Statistics**

Percent	UNESCO (2010)	HIS-based (2004)	HIS-based (2012)
Primary, net 1/	95.9	94.4	97.8
Secondary, net	68.6	74.2	79.1
Lower secondary, net	..	87.1	96.4
Upper secondary, net	..	55.8	63.6
Secondary, gross	69.1	79.8	80.3
Lower secondary, gross	90.2	98.4	98.8
Upper secondary, gross	52.2	64.8	65.9

Source: UIS, DOS (2012 HIS) and World Bank staff calculations  
Note: 1/ 2005 data.

**Table 8. SPM-takers as a share of all 17-year olds**

Percent	2011	2012
Students registering for SPM	87.1	87.2
Students taking the SPM	82.9	..
Students passing SPM	75.5	..
Gross enrolment, Form 1 – Form 5	82.7	82.8
Gross enrolment, Form 6	15.8	17.5
<i>Memo: Estimated number of 17-year olds</i>	538,475	541,799

Source: Examination Syndicate, Ministry of Education

**99. While the official statistics on secondary enrolments do not indicate a large number of adolescents out of school, they do point to a relatively small pipeline of students going into tertiary education.** Two observations related to secondary enrolments suggest that further improvements in coverage are needed. First, even at the adjusted gross rate of 80 percent, secondary enrolment is still below the average for middle-income countries (83 percent) and high-income OECD economies (101 percent). Second, the low enrolments in Form 6 and among 18 and 19 year-olds more generally (66 and 54 percent, respectively) signal that relatively few adolescents go on to complete a post-secondary education. The biggest drop in attainment among the young adults shown in Figure 60 is observed at the pre-university level: while 84.3 percent complete Form 5, only 37.2 percent complete Form 6 or equivalent. Among 25-29 year-olds in 2012, approximately 33.4 percent completed a post-secondary program, and only 15.3 percent attained a bachelor's degree or higher.

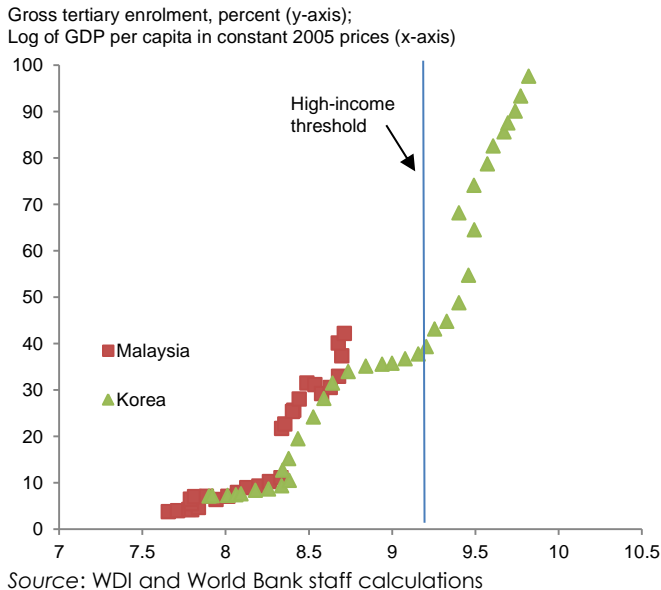
**100. Tertiary enrolments are low compared to high-income countries and will likely need to expand significantly for Malaysia to complete its transition to a high-income economy.** The tertiary gross enrolment rate for Malaysia (36 percent) has remained below the high-income OECD average (72 percent) and considerably below that in Korea (100 percent). Figure 61 shows that Malaysia's tertiary enrolment rate is actually higher than that of Korea when it had

<sup>23</sup> Form 6 is considered an ISCED level 3, or secondary education, program as it provides access to an ISCED level 5, or university, program.

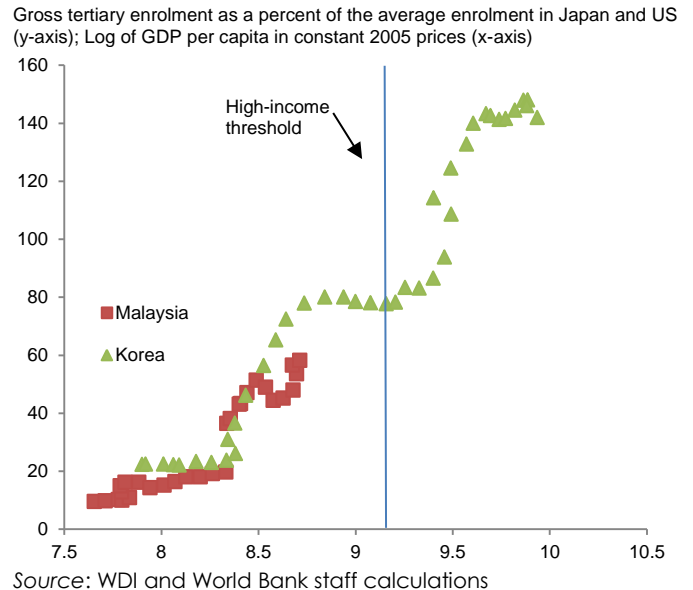
<sup>24</sup> Students generally take the SPM at age 17, therefore enrolments through age 19 would be expected to be lower than the fraction of 17-year olds taking the SPM.

similar incomes per capita. However, Figure 62 suggests that the path from middle to high income included a drastic catch up in enrolments from 20 percent of the US/Japan level to between 70 and 80 percent. Malaysia experienced some catch up, but at 58 percent, the distance to the frontier is greater than Korea's or Chile's at the same income level. While this Economic Monitor is primarily concerned with basic education, as will be highlighted later, improving the quality of education will also be supportive of higher post-secondary enrolments, especially for children in lower-income households.

**Figure 61. Tertiary enrolments in Korea were similar to Malaysia's when it became a high-income economy...**



**Figure 62. ...but at the time, rates were also lower in Korea's competitors**



**101. Despite impressive gains in the past five years, pre-primary enrolments can be further expanded.** In 2012, about 88 percent of 6-year olds and 73 percent of 5-year olds were enrolled in a pre-primary program<sup>25</sup>. By comparison, the GTP had set a target of 80 percent enrolment for 4+ and 5+ year olds by 2011. While Figure 56 suggests this figure is somewhat higher than would be expected by Malaysia's income level, further improvements are possible. In Thailand, for example, preprimary enrolment among children aged 6 years and 5-4 years in 2012 was 99 and 81 percent respectively. 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.

## Are children learning?

### *International tests suggest weak and declining performance in production of key cognitive skills*

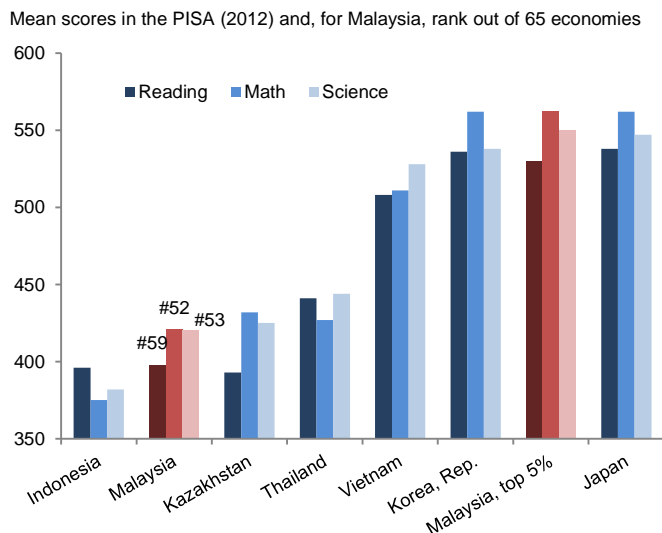
**102. The quality of cognitive skills of Malaysian students, as measured by standardized international tests, is not on par with the country's aspirations to become a high-income economy.** Malaysia participated in the PISA assessment in its 2009+ and 2012 exercises.<sup>26</sup> Both times, Malaysia performed in the bottom third for Reading, Mathematics and Science, well below the international and OECD averages, as well as the level of performance expected given Malaysia's income level (Figure 58) and that of high income economies that Malaysia aspires to join (Figure 63). More than half of Malaysian students do not reach basic proficiency levels in Mathematics, and even the top 5 percent of

<sup>25</sup> Source: PEMANDU.

<sup>26</sup> The Programme for International Student Assessment (PISA), developed by the OECD, reviews the extent to which students near the end of compulsory education have acquired some of the knowledge and skills that are essential for full participation in modern society, particularly in mathematics, reading and science. Malaysia participated in the '+' version of the 2009+ PISA, meaning the assessments were actually conducted in 2010.

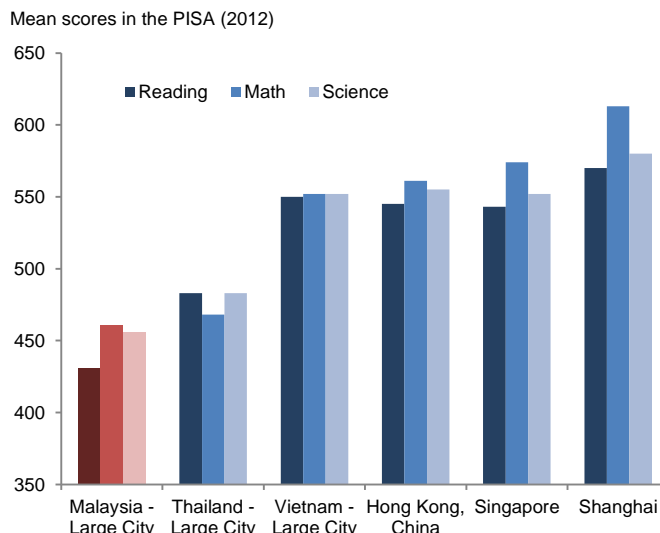
Malaysian students perform only in line with the average Korean or Japanese pupil. Average performance is not driven by urban-rural disparities, as students from large cities similarly under-perform relative to peers in other East Asian cities (Figure 64). The evolution in performance between 2010 and 2012 was mixed, with significant improvement in Mathematics, a small decline in Science, but a large decline in Reading scores (Figure 65). Performance was also well below that of lower-income Vietnam, which participated in the PISA for the first time in 2012. Box 3 provides some insights on features of Vietnam's education system that contributed to this performance.

**Figure 63. Malaysia ranks towards the bottom of international test scores**



Source: OECD PISA (2013) and World Bank staff calculations

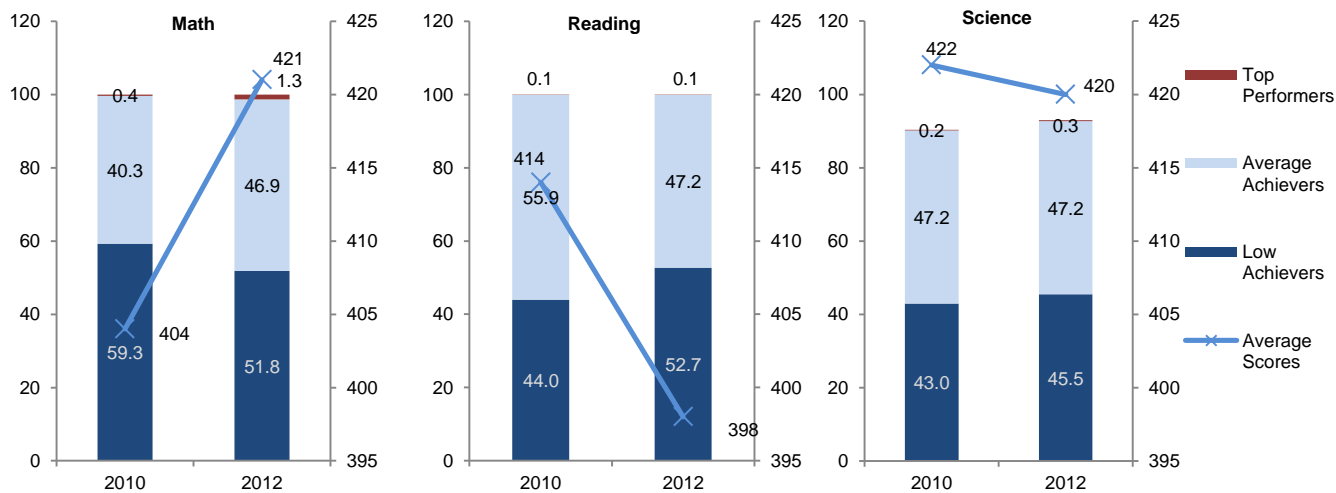
**Figure 64. Students in Malaysian cities underperform relative to their peers elsewhere in Asia**



Source: OECD PISA (2013) and World Bank staff calculations

**Figure 65. The change in performance between 2010 and 2012 was mixed, but gains in Math are encouraging**

Share of students at each proficiency level, percent (RHS) and mean scores in the PISA (2012), (LHS)



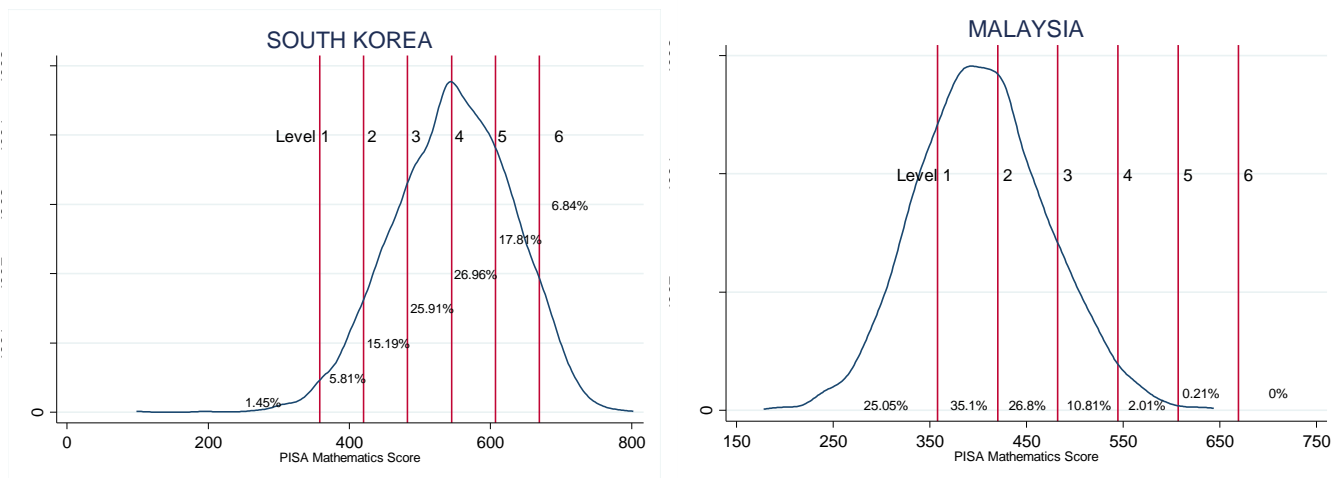
Source: OECD PISA (2013) and World Bank staff calculations

**103. Malaysia lags high-performing education systems in East Asia at both the high- and low-end of the skills distribution.** Figure 66 and Figure 67 compare the achievement of Malaysian and South Korean children in the mathematics and science components of PISA 2009. Twenty-five percent of Malaysian children failed Level 1, compared to 1.5 percent of Korean students. A proficiency level of 1 in Mathematics indicates that students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. A proficiency level of 3 indicates that students can execute clearly described procedures, including those that require sequential decisions. Only 13 percent of Malaysian students passed this level, compared to about 88

percent of Korean students. The performance in the Science exam was only slightly better. A proficiency level of 1 in Science indicates that students can present scientific explanations that are obvious and follow explicitly from given evidence. About 1 percent of Korean students and 11 percent of Malaysian failed this level. Students passing Level 3 in Science demonstrate the ability to develop short statements using facts and make decisions based on scientific knowledge. About 76 percent of Korean students and 19 percent of Malaysian students passed this level.

**Figure 66. Distribution of PISA mathematics scores in Malaysia and South Korea, 2009**

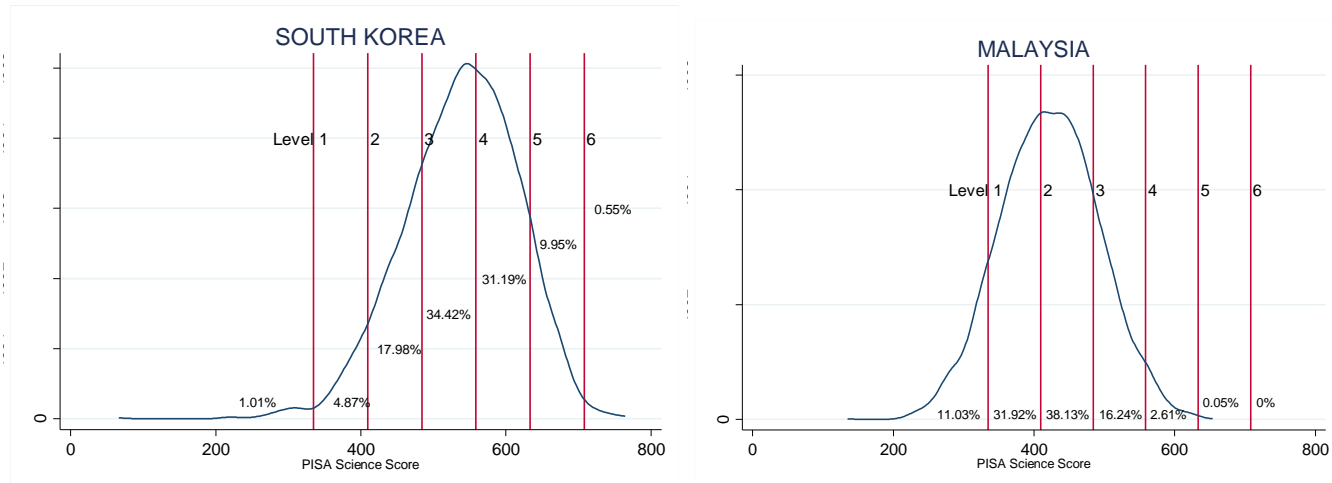
Density (y-axis), PISA (2009) Mathematics score (x-axis)



Source: OECD, World Bank staff calculations

**Figure 67. Distribution of PISA science scores in Malaysia and South Korea, 2009**

Density (y-axis), PISA (2009) Science score (x-axis)



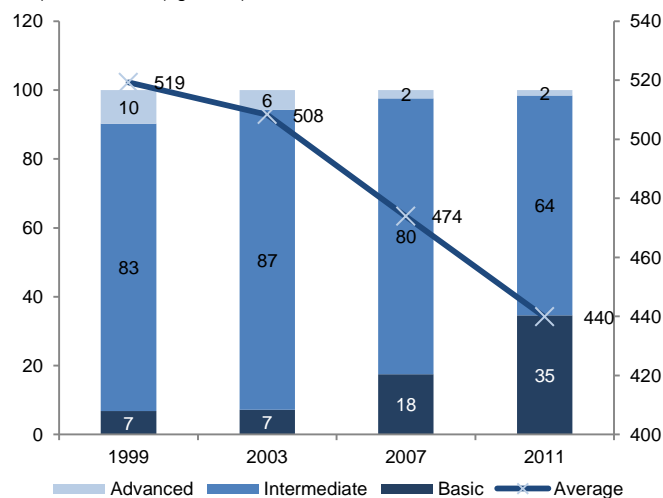
Source: OECD, World Bank staff calculations

**104. The PISA results suggest that schooling is not translating into learning.** While school enrolment among 15-year olds in Malaysia is broadly similar to advanced economies in the region, quality gaps mean that schooling is not translating into higher levels of human capital. In the 2009 PISA assessment, Malaysia's performance was at least 100 points below that of regional peers like Singapore, Japan, South Korea, and Hong Kong on all three subjects. In PISA, a 39 point difference is the equivalent of one schooling year of learning (OECD, 2010). This means that 15-year-olds in Malaysia are performing as though they have had three years' less schooling than 15-year-olds in these countries. Compared to Shanghai, the world's best-performing school system in PISA 2009+, the gap is equivalent to four years of schooling.

**105. Learning outcomes in the TIMSS were above the international average between 1999 and 2003, but declined sharply in 2007 and further in 2011.** Malaysia participated in the Trends in International Mathematics and Science Study (TIMSS) for the first time in 1999. The country's scores on both Mathematics and Science (519 and 492, respectively) were above the international average, with a ranking of 16 among 38 countries in Mathematics and 22 in Science. In 2003, Malaysia's performance was similar to that of 1999. The Science score actually increased, remaining well-above the international average, while the Mathematics score dropped somewhat but also stayed above the international average and the country's rank actually improved to 10<sup>th</sup> place among 45 countries. The 2007 and 2011 assessments, however, showed a significant deterioration in performance (Figure 68 and Figure 69). By 2011, the Mathematics score had dropped to 440 points (26<sup>th</sup> position among 42 countries), while the Science score fell to 426 points (32<sup>nd</sup> among 42 countries). Up to 38 percent of students in Malaysia did not meet the minimum benchmarks in Mathematics and Science in 2011, an approximately twofold increase since 2007, and five times higher than in 1999. These students understand basic mathematics and science concepts but struggle to apply them. A breakdown of student performance in the most recent TIMSS 2011 results shows that few among Malaysia's students excel compared to other countries. Only 1-2 percent of Malaysian students perform at the highest benchmark level, such as complex problem-solving, compared to more than 40 percent of students in Singapore.

**Figure 68. Performance declined in both Math...**

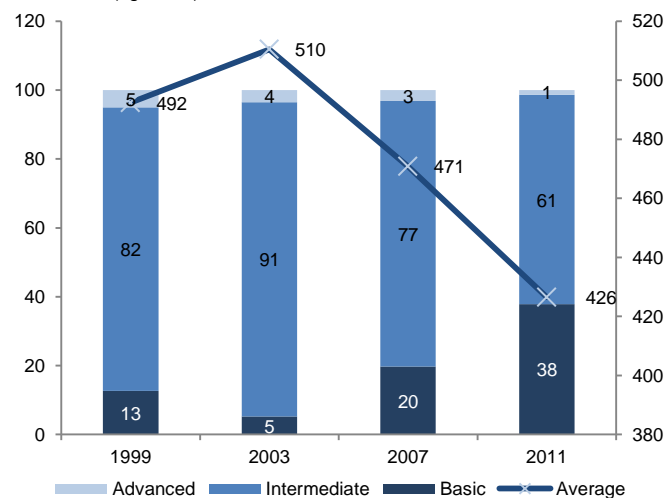
TIMSS 1999-2011 performance in Mathematics, percent at each level (left axis); mean score (right axis)



Source: TIMSS, World Bank staff calculations

**Figure 69. ... and Science**

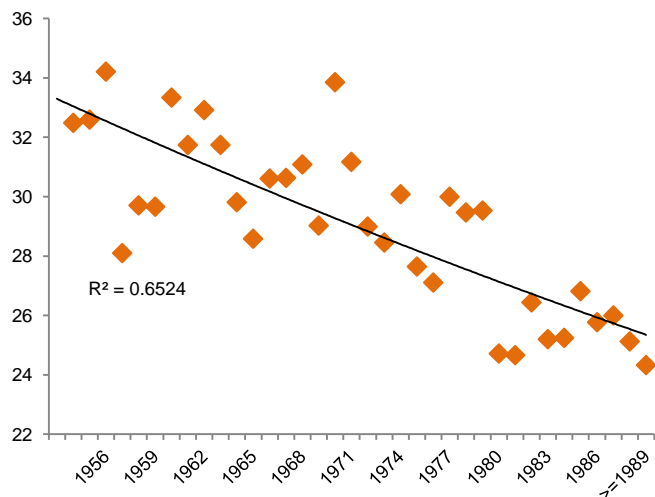
TIMSS 1999-2011 performance in Science, percent at each level (left axis); mean score (right axis)



Source: TIMSS, World Bank staff calculations

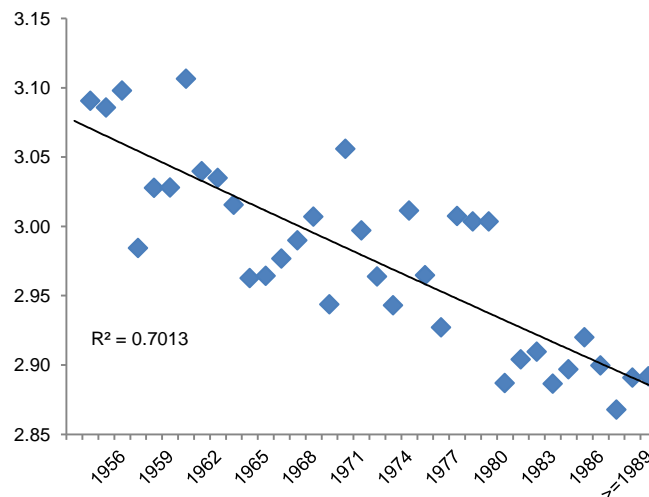
**Figure 70. Older teachers perform better in English proficiency tests compared to younger cohorts**

Percent of English teachers proficient in English, by year of birth



Source: PEMANDU, World Bank staff calculations

Average grade (A1=0, C2=5), by year of birth



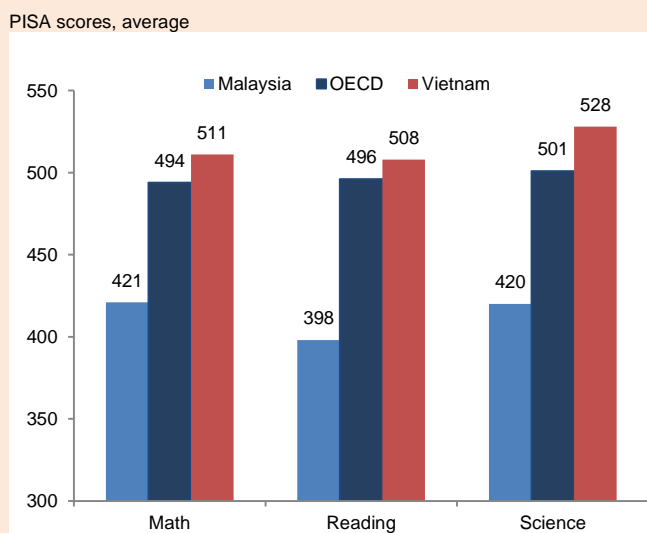
Source: PEMANDU, World Bank staff calculations

**106. Although English proficiency in Malaysia remains much higher than in other Asian countries, there is evidence that English language skills have been declining over time.** There is ample anecdotal evidence of the decline in English language skills among Malaysians. For example, in 2011 the Malaysian Department of Civil Aviation introduced an English language requirement for licensing of aircraft maintenance personnel. Dialogue Training and Services (2013) notes that a reason specific to Malaysia for introducing the requirement was that “in the maintenance field, ‘new generation’ licensed personnel have been found to be less proficient in the language compared to the more senior personnel.” Further evidence comes from perception surveys, such as investment climate assessments. In 2007, 46 percent of firms reported English language skills as a constraint to their businesses (World Bank, 2009). Some quantitative evidence corroborates these perceptions. Figure 70 shows the level of English proficiency of English teachers by age. A smaller proportion of younger teachers reach basic proficiency levels compared to older teachers, while average performance in the test also declines with age.

### Box 3. Lessons from Vietnam on boosting performance in education

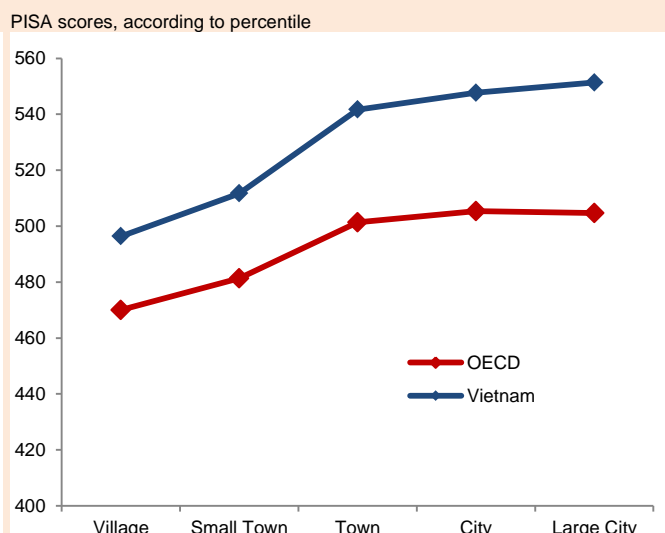
Vietnam is arguably the star performer in PISA 2012. Vietnamese students not only outpaced their Malaysian peers, but scored higher than average OECD students in all three PISA components (see Figure 71). Performance is relatively uniform across urban and rural areas, with a similar pattern of considerable equity of outcomes across towns and large cities (Figure 72). How did Vietnam achieve these relatively high levels of student attainment, and what lessons does this offer Malaysia?

**Figure 71: Vietnam outperforms OECD countries in the PISA exam**



Source: OECD PISA (2013)

**Figure 72...with comparable urban-rural differences**



Source: OECD (PISA) 2013

The World Bank's 2014 Vietnam Development Report highlights some of what Vietnam has done right in terms of improving school outcomes:

- **Improvements in teaching quality**, across the board: Vietnam's primary education teacher workforce has become significantly better qualified in recent years, with nearly 60 percent of all primary school teachers holding a college or university degree, double the percentage from 2006. A Young Lives survey report published in August 2013 found that while there was a high degree of correlation between teacher ratings and test scores for mathematics, the Vietnamese education system was also highly equitable: few teachers, including those working in disadvantaged neighborhoods, perform poorly in assessments of their knowledge for teaching. In addition, the survey found that teacher attendance in Vietnam was very high: absenteeism averaged only two days over the survey period of eight months.
- **Use of a mix of school-based assessments and national-level exams:** Good teachers are able to correctly

assess their students' abilities. In Vietnam, classroom assessments with written and oral tests as well as marked assignments and homework are used to provide real-time feedback on students' performance to inform teaching, while after grade 12 (equivalent to Upper 6 in the Malaysian education system), national examinations are used to inform high-stakes decisions about students' progression to the next level in the system.

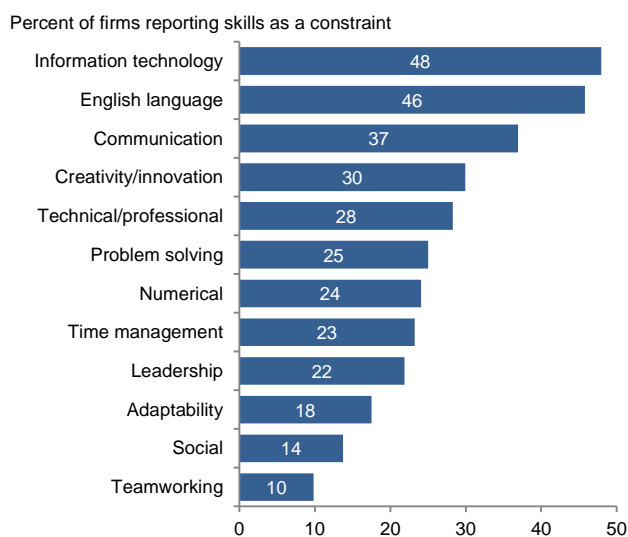
- **Full day schooling:** Recognizing that half-day schooling provided insufficient hours of instruction, the Vietnamese government embarked on an expansion of full-day schooling. 51 percent of schools sampled in the Young Lives survey provided full-day schooling to all pupils, with 40 percent of schools offering it for free. Schools use the additional time for several reasons: (i) strengthening of Mathematics and Vietnamese; (ii) subjects that would otherwise be limited under the half-day school such as music, arts, foreign languages and IT; and (iii) remedial programs for weak performing students.
- **Curriculum modernization and greater parental participation:** Vietnam has also adapted a Colombian teaching model called Escuela Nueva which emphasizes group learning and problem-solving over rote memorization and copying. Students are taught at their own pace, and schools participating in the program also have the opportunity for parental participation in the learning process and to contribute to learning content. The latter is particularly meaningful in ethnic minority regions, where parents are encouraged to come to schools to pass on their cultural traditions. The Vietnamese government is now scaling up the original pilot of 24 schools in 6 provinces to 1,500 schools in all 63 provinces.

Source: World Bank (2013c)

### Evidence from labor markets suggests mismatches in skills formation

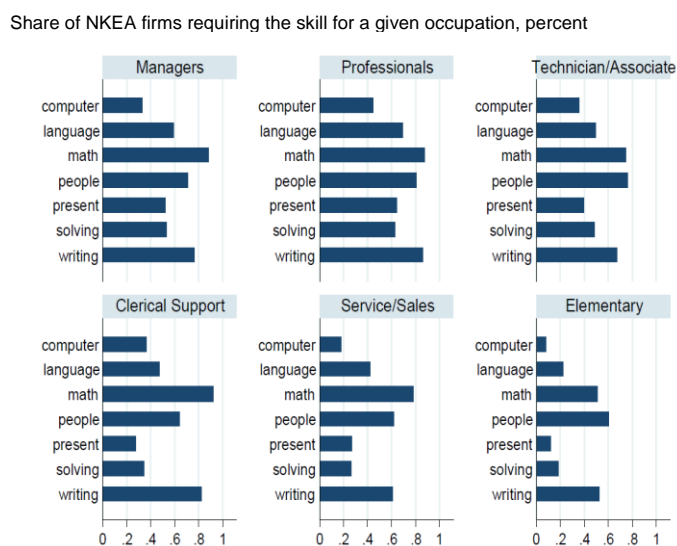
**107. Although the Malaysian labor force has steadily become more highly educated, firms report large deficits in skills.** Forty-eight percent of firms in the Productivity and Investment Climate Survey conducted in 2007 reported facing deficits in Information Technology and 46 percent in English (Figure 73). Among soft skills, communication, creativity/innovation, and problem solving skills were most often lacking. The skills most in deficit among firms in National Key Economic Areas (NKEAs) are reported to be IT, language, and communication (Figure 74). Those skills also tend to be the ones with the largest wage premia (computer, language, presentations skills) (World Bank 2013a), suggesting that even though firms are willing to pay for these skills, they cannot always meet their demand.

**Figure 73. Firms report shortages of both cognitive and non-cognitive skills**



Source: World Bank (2009)

**Figure 74. Most NKEA firms require Math and writing skills even for mid-level jobs**

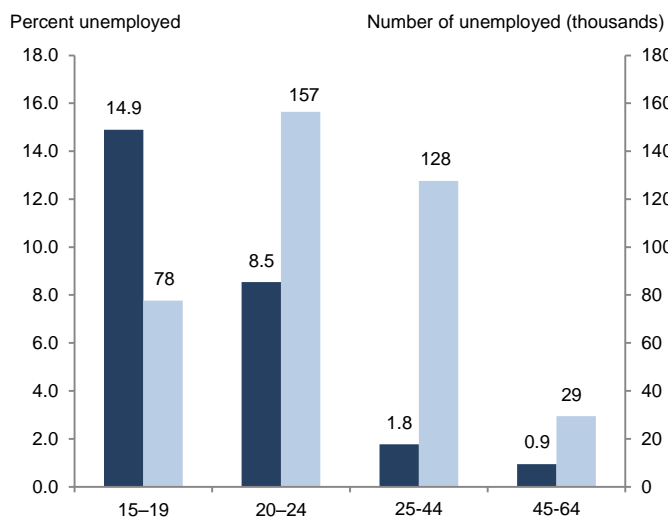


Source: World Bank (2013a)

**108. The high unemployment rate among recent graduates provides further evidence that the education system is not building the skills demanded by the labor market.** Unemployment in Malaysia is highest among young job seekers. In

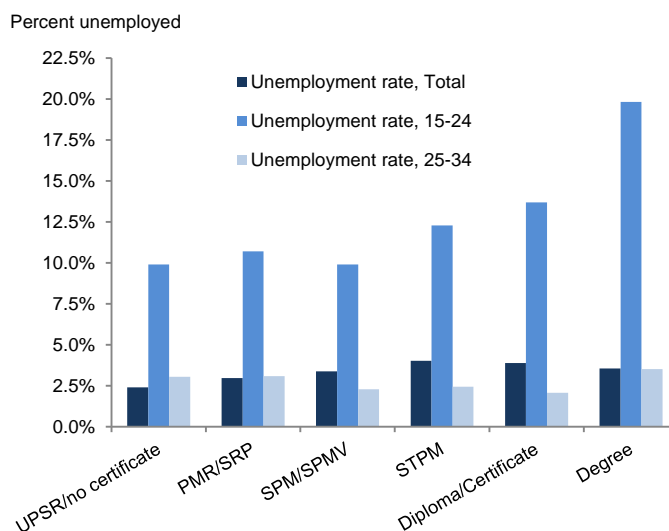
2011, unemployment rates for Malaysians aged 25 and above were remarkably low (Figure 75). The same was not true for younger Malaysians. In 2011, among the total labor force ages 15 to 24, 9.9 percent were willing to work but did not have a job, and the largest number of unemployed were aged 20-24. The unemployment rate for young Malaysians across all education levels is relatively high, peaking at 19.8 percent among university degree holders and never dropping below 10 percent (see Figure 76).<sup>27</sup> The rate of under-employment (i.e. those working under 30 hours a week but willing to work more) for those aged between 15-24 is was 15.1 percent as of 2012 compared to 4.6 percent overall, suggesting that the young are also disproportionately represented in this group. At a time when employers report difficulties finding high-skilled workers to fill vacancies, the unemployment rates for recent university graduates points to potential mismatches in the type of skills produced by the education system, as well as inefficiencies in the delivery system of skills formation.

**Figure 75. Unemployment is concentrated among the young...**



Source: DOS (Labor Force Statistics Time Series), 2011 and World Bank staff calculations

**Figure 76. ...especially those with college degrees**



Source: World Bank (2013a)

Note: Figure shows the unemployed population aged 15 to 24 for all educational levels. However, there are no unemployed SPM / SPMV holders under age 17, no unemployed STPM holders under age 19, no unemployed certificate / diploma holders under age 17 and no unemployed degree holders unemployed under age 20.

*Schools do not fully leverage Malaysia's significant diversity*

**109. A further dimension of quality is the extent that the education system leverages on the diversity of the population and promotes social cohesion.** An ethnically diverse society can be leveraged as a source of comparative advantage and play a role as an engine of economic growth, while ethnic-based conflict represents a risk to the sustainability of the growth process (see for example Easterly, 1997 and Esteban et al. 2012). Although education systems will tend to reflect rather than shape interactions between ethnic groups, they can play a role in dampening or amplifying ethnically-based segregation in society (Szulkin and Jonsson, 2007). It is important that Malaysia's diversity is reflected in its schools, so as to give Malaysian children the opportunity to live with and learn from fellow Malaysians of every ethnicity, religion, and culture.

**110. Student and teacher diversity in National schools has decreased, especially at the primary level.** Ethnic stratification in schools has increased, with the proportion of Chinese students enrolled in SJKCs up from 92 percent in

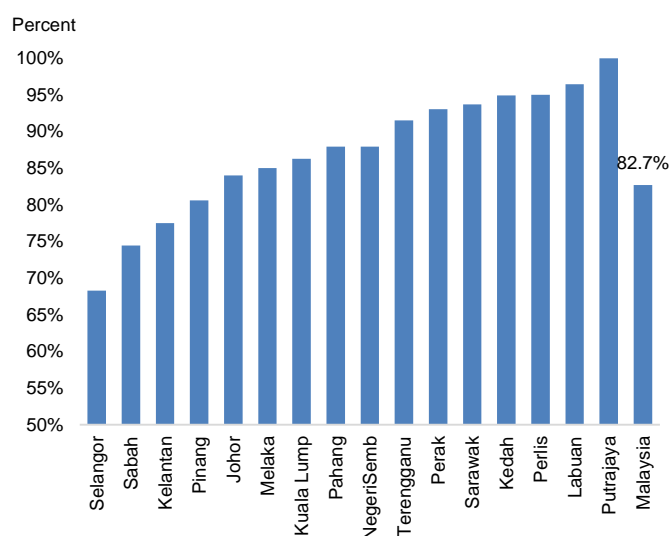
<sup>27</sup> This figure is confirmed by longitudinal studies on 2011 graduates, which indicated that the average unemployment rate of graduates stood at 20 percent. It should be noted however that there is significant heterogeneity behind these figures in terms of degrees and types of universities. For example, the 2012 tracer study on post-graduate students in Malaysia at PhD and post-graduate diploma levels indicates much lower unemployment rates at these levels (0 and 3.7 percent, respectively).



2000 to 96 percent in 2011. Indian students enrolled in SJKTs have also increased from 47 percent to 56 percent for the same period. According to the Malaysia Education Blueprint 2013-2025, 97 percent of students in SKs are Bumiputera. Although students then largely converge at the secondary level and SMKs are more reflective of the country's diversity, there appears to be a missed opportunity for greater interactions in early years. In this regard, the Education Blueprint recognizes the need to create avenues for students from different school-types to interact. Similar to the importance of diverse peers, students benefit from role models of different ethnicities, to properly reflect Malaysia's diverse population, and to bridge the gaps between ethnicities. However, the teacher population in SKs is also becoming less diverse. In 2001, 78 percent of the teachers across all National schools were Bumiputera, and this number rose to 81 percent in 2011. Although the proportion of Indian teachers remained fairly constant at 5 percent, the share of Chinese teachers in National schools dropped from 17 to 14 percent.

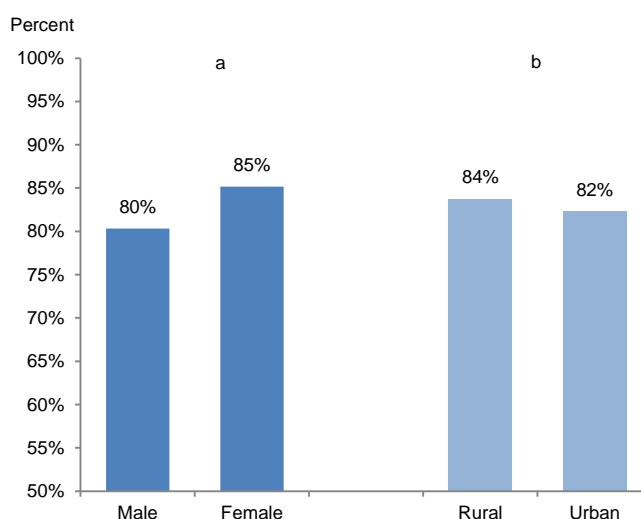
### Are children of every group in society able to access quality education?

**Figure 77. Pre-school enrolment among 6 year old children in Malaysia, 2012, by state**



Source: DOS (2012 HIS) and World Bank staff calculations.

**Figure 78. Pre-school enrolment among 6 year old children in Malaysia, 2012, by strata and gender**



Source: DOS (2012 HIS) and World Bank staff calculations.

**111. Enrolment in pre-primary school is fairly equitable across most dimensions, though state-level differences can be pronounced.** Among 6-year old children, the difference between high-enrolment states such as Perlis and Kedah and those with the lowest (Sabah and Kelantan) is nearly 20 percentage points (Figure 77).<sup>28</sup> There appear to be small gender differences, with girls more likely to be in pre-primary schools compared to boys (Figure 78a). Differences between rural and urban areas (Figure 78b), as well as those by income group and ethnicity appear insignificant.

**112. The small remaining gaps in lower secondary education are more pronounced in East Malaysia.** At the lower secondary level, although enrolment rates are estimated to be high across the country, the difference between states with the highest enrolment rates (KL, Penang, Johor and Perak) and Sabah and Sarawak is nearly 6 percentage points (Figure 79). Ethnic and socioeconomic differences in lower secondary enrolments were found to be small. The difference in enrolments between the top and bottom quintile is less than 4 percentage points (Figure 80), while all ethnicities except non-Malay Bumiputerans had enrolment rates over 97 percent.<sup>29</sup>

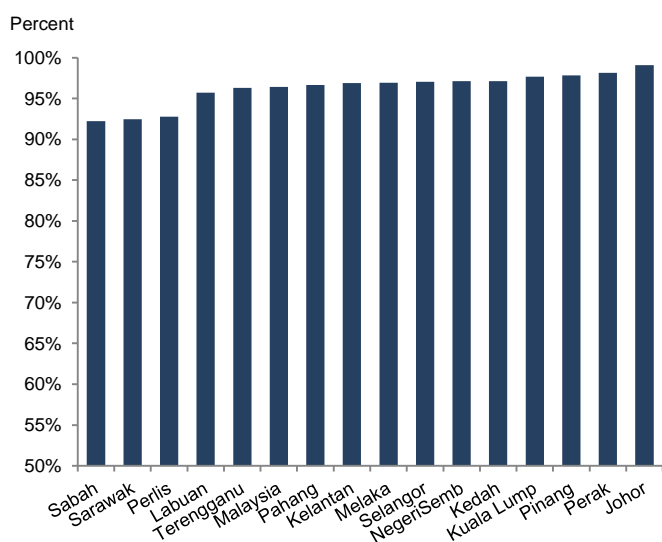
**113. Upper secondary enrolments vary most significantly across states.** The difference in enrolment rates between high-enrolment states such as Perak, Pahang and Penang and low enrolment states such as Perlis, Sarawak and Sabah is nearly 10 percentage points (Figure 81). Differences with respect to gender, area (Figure 82a and b),

<sup>28</sup> Enrolment rates based on the Household Income Survey 2012 and may not exactly match official data. The HIS estimate for enrolment of 6-year olds is 82.6 percent compared to the official enrolment estimate of 88.3 percent for this age group.

<sup>29</sup> Socio-economic status in this report is categorized in accordance with family per capita monthly net income in adult equivalent scale (from the poorest in Quintile 1 to the richest in Quintile 5).

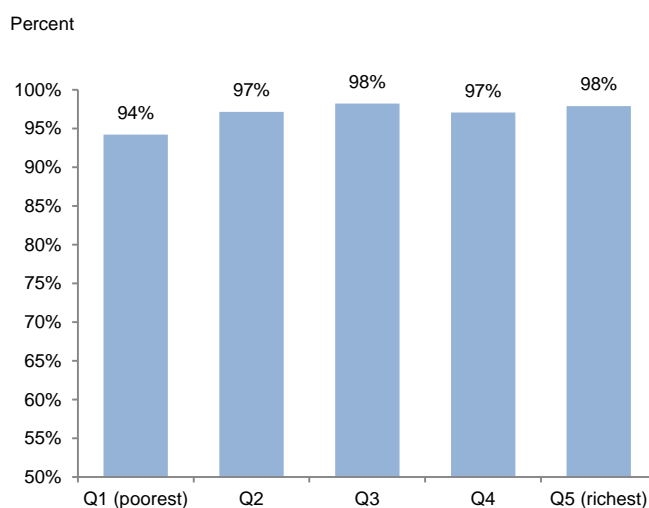
income level and ethnicity appear less pronounced. Nevertheless, enrolment among females is 5 percentage points higher compared to males, presaging the large imbalance towards females in tertiary education.

**Figure 79. Lower secondary enrolment in Malaysia, 2012, by state**



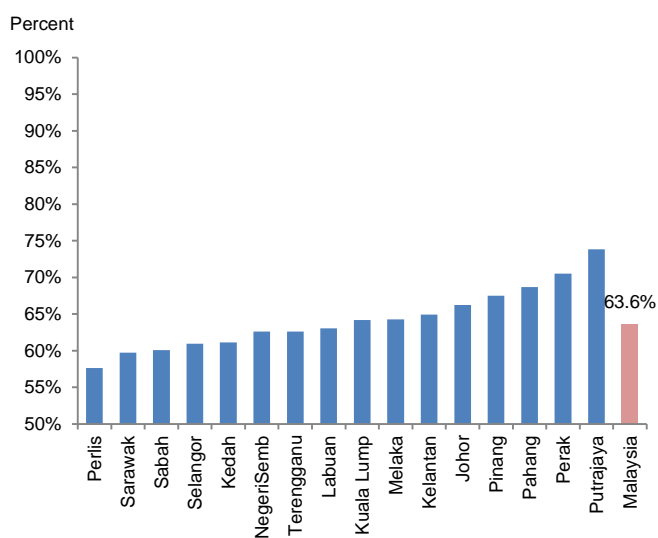
Source: DOS (2012 HIS) and World Bank staff calculations.

**Figure 80. Lower secondary enrolment in Malaysia, 2012, by income group**



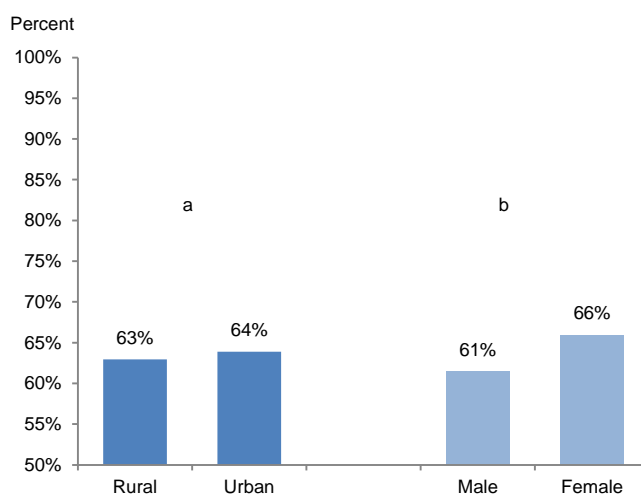
Source: DOS (2012 HIS) and World Bank staff calculations.

**Figure 81. Upper secondary enrolment in Malaysia, 2012, by state**



Source: DOS (2012 HIS) and World Bank staff calculations.

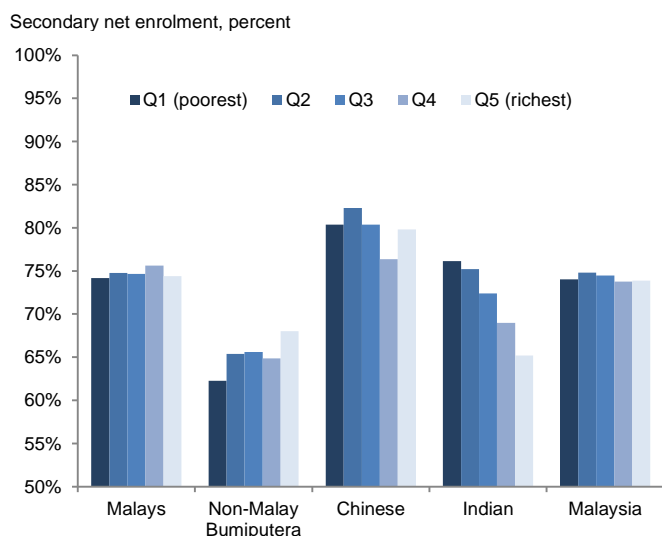
**Figure 82. Upper secondary enrolment in Malaysia, 2012, by stratum and gender**



Source: DOS (2012 HIS) and World Bank staff calculations.

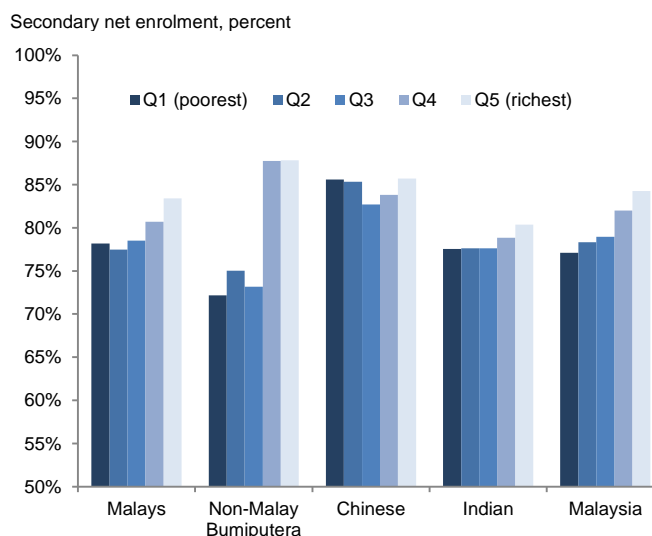
**114. Socio-economic differences in overall secondary enrolment within ethnic groups are generally small but have increased somewhat since 2004 and led to an overall increase in inequality.** Secondary enrolments increased across ethnic and socio-economic groups between 2004 and 2012 (Figure 83 and Figure 84), but overall students from higher socio-economic backgrounds made the largest gains. This was particularly the case for non-Malay Bumiputeras, where enrolment of students from the top 40 percent of the wealth distribution increased by over 20 percentage points compared to a still-respectable 10 percentage point gain among the lowest wealth quintile. Inequality also increased among Malays, where difference in secondary enrolment between the highest and lowest income quintiles climbed from close to zero in 2004 to 5 percentage points in 2012. Nevertheless, with the exception of non-Malay Bumiputeras, differences between students from the highest and lowest socio-economic group are lower than the nation-wide average of 7 percentage points.

**Figure 83. Secondary net enrolment in Malaysia, 2004, by ethnicity and socioeconomic status**



Source: DOS (2004 HIS) and World Bank staff calculations.

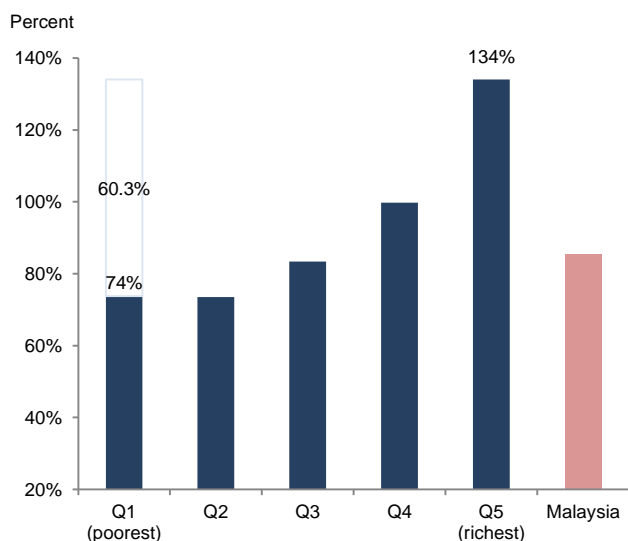
**Figure 84. Secondary net enrolment in Malaysia, 2012, by ethnicity and socioeconomic status**



Source: DOS (2012 HIS) and World Bank staff calculations.

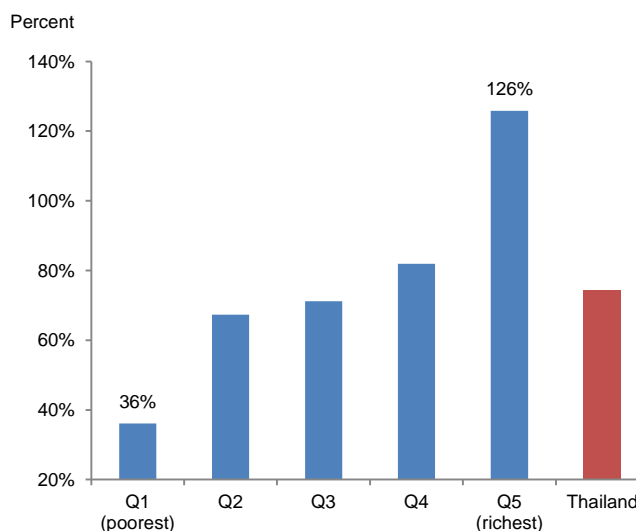
**115. Inequalities in post-secondary enrolment are more pronounced, especially with respect to socio-economic status.** Children of families in the richest 20 percent of the wealth distribution are nearly twice as likely to be enrolled in post-secondary education compared to those in the bottom 20 percent (Figure 85). While this is a large gap, Malaysia's system is less unequal compared to Thailand, where gross enrolment in the wealthiest quintile is nearly 4 times as high as in the lowest quintile, almost entirely due to much lower enrolment among the Thai poor (Figure 86). Although post-secondary (gross) enrolments rates did not differ much between rural and urban dwellers, there were significant differences across states, from about 100 percent in Kuala Lumpur and Selangor to about 50 percent in Sabah and Perlis. Gender differences are large, with higher enrolments among women: the gross post-secondary enrolment rate among women was 95.4 percent, compared to 76.2 among men. Differences between ethnicities, especially with respect to net enrolments, were small relative to socio-economic differences, with the exception of non-Malay Bumiputeras, which appear to lag other ethnicities (48 percent gross enrolment vs. national average of 85 percent). Given the significant jump in secondary enrolment among that population, post-secondary enrolment would be expected to improve going forward.

**Figure 85. Post-secondary gross enrolment in Malaysia, 2012, by socioeconomic status**



Source: DOS (2012 HIS) and World Bank staff calculations.

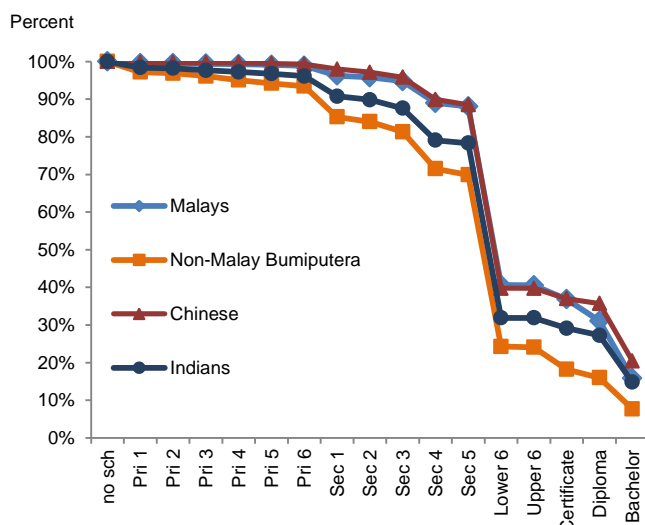
**Figure 86. Post-secondary gross enrolment in Thailand, 2012, by socioeconomic status**



Source: NESDB (2012) and World Bank staff calculations.

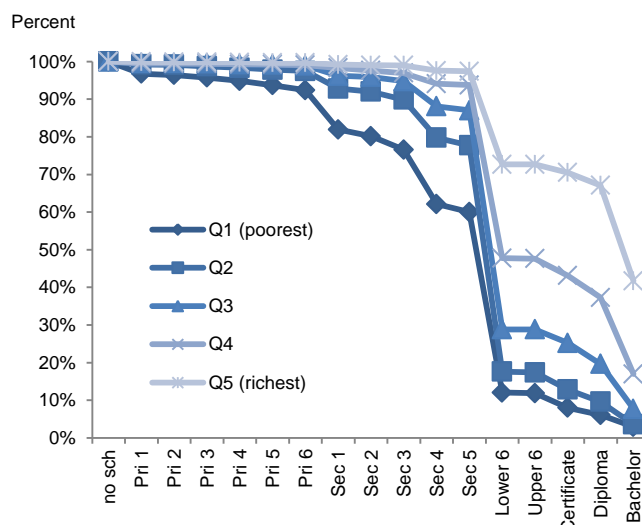
**116. As with secondary and post-secondary enrolments, inequalities in educational attainment based on place of dwelling, gender or ethnicity are dwarfed by socio-economic disparities.** Rural areas lag behind urban areas in educational attainment, especially at post-secondary levels, and by tertiary level, the urban-rural gap for this cohort has grown to around 20 percentage points. Gender gaps slightly favor women, who are more likely to have a Bachelor's degree compared to their male peers. The educational attainment of Malays and Chinese is comparable, while attainment of non-Malay Bumiputeras lag somewhat starting with secondary education (Figure 87). Socio-economic differences are by far the most pronounced. 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 88). The attainment gap between the wealthiest groups 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, only about 5 percent of their peers from the bottom 40 percent have.

**Figure 87. Educational Attainment among education completers 25-29 years old in Malaysia, 2012, by ethnicity**



Source: DOS (2012 HIS) and World Bank staff calculations.

**Figure 88. Educational Attainment among education completers 25-29 years old in Malaysia, 2012, by socioeconomic status**



Source: DOS (2012 HIS) and World Bank staff calculations.

**117. Inequality 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 9. 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 9 suggests that those in the top 20 percent are 44-61 percent more likely to reach post-SPM education compared to those in the bottom 60 percent.

**Table 9. Wealth-Related Gaps in Educational Attainment among 25-29 year old education completers, 2012**

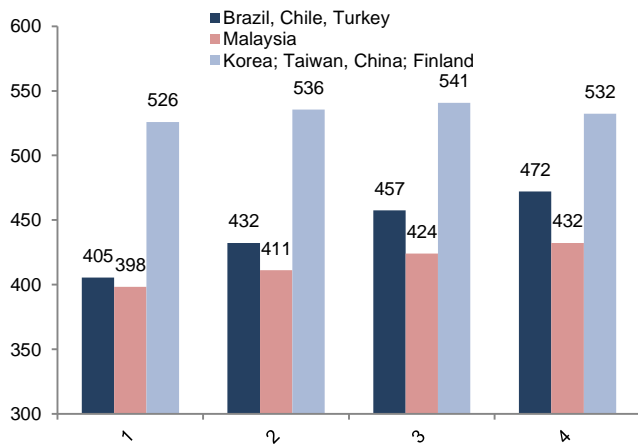
Percent	Complete primary	Enrol in secondary	Complete SPM	Enrol in post -SPM	Complete bachelor
Q1-Q5	-7.3%	-17.3%	-37.4%	-60.6%	-38.8%
Q2-Q5	-2.2%	-6.4%	-19.7%	-55.1%	-38.1%
Q3-Q5	-0.7%	-3.0%	-10.4%	-43.8%	-34.0%
Q4-Q5	-0.6%	-0.9%	-3.6%	-24.9%	-24.7%

Source: DOS (2012 HIS) and World Bank staff calculations.

**118. Socioeconomic differences in learning outcomes are less pronounced than those in highly unequal systems such as Brazil, but above what is observed in highly equitable systems such as that of Korea.** Figure 89 shows that performance in PISA (2009+) among Malaysian students improves along an index of socio-economic status<sup>30</sup>, but gaps are not as extreme as those observed in the most unequal systems such as Brazil, Chile and Turkey. However, neither is the system on par with the most equitable (and best performing) systems such as those in Korea; Taiwan, China; and Finland. Figure 90 compares learning outcomes by quintiles of wealth in Malaysia with those in South Korea. The mean averaged Science and Mathematics scores among children from households ranked in the highest wealth quintile stood at 473, while in the lowest quintile stood at 383 – a 90 point difference. In South Korea, the corresponding difference was significantly lower at 61 points.

**Figure 89. Malaysia is more equitable compared to Brazil, Chile or Turkey with respect to outcomes**

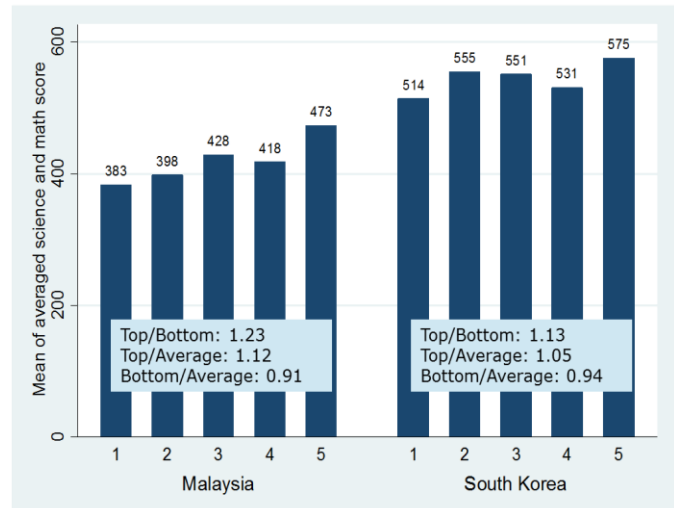
Mean of averaged science, math and reading score, by socio-economic group



Source: PISA (2009) and World Bank staff calculations.

**Figure 90. But improvements are still possible compared to high-equality systems such as Korea**

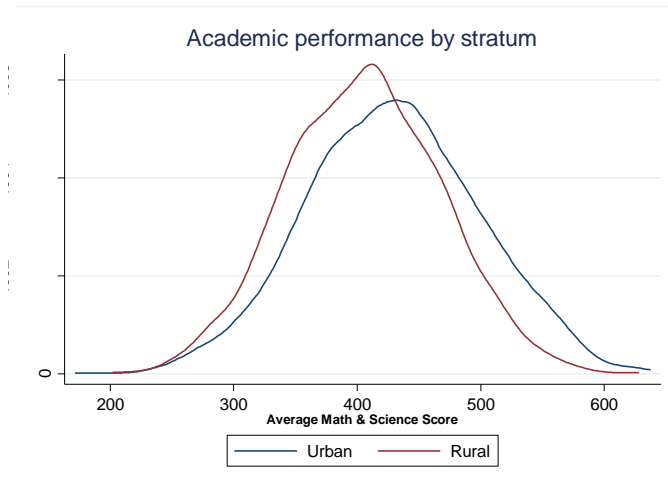
Mean of averaged math and reading scores (2009), by quintiles of wealth



Source: PISA (2009) and World Bank staff calculations.

**Figure 91. Averaged science and mathematics PISA scores in Malaysia, 2009, by area of residence**

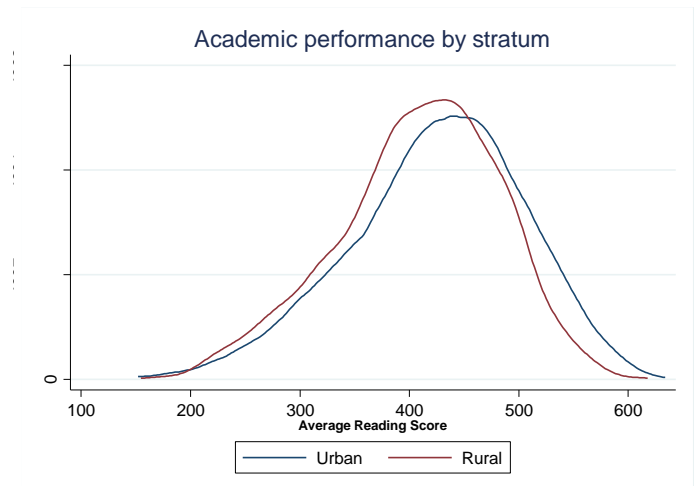
Density (y axis), Average Math & Science Score (x-axis)



Source: PISA (2009) and World Bank staff calculations.

**Figure 92. PISA reading scores in Malaysia, 2009, by area of residence**

Density (y axis), Reading Score (x-axis)



Source: PISA (2009) and World Bank staff calculations.

<sup>30</sup> The index includes the number of cars, bathrooms, computers and TVs owned by the student's household.

**119. In line with the distribution of performance by wealth quintile, children from urban schools perform better than those in rural schools, especially in math and science.** Urban-rural differences were notable, as illustrated in Figure 91 and Figure 92. Therefore, children of poor households and in rural areas are not only facing a lower probability of reaching higher levels of educational attainment, but also of translating schooling into learning. Recall that in PISA, a 38 point difference is the equivalent of one schooling year of learning. Therefore, students in the bottom quintile of the wealth distribution have, effectively, 2.4 years less of quality-adjusted educational attainment compared to those in the top. The estimated gap in attainment between a child in the top quintile and one in the bottom is 4.5 years (difference in expected attainment) plus 2.4 years (difference from lower performance), or a total of nearly 7 years. Put it differently, differences in quality account for approximately 1/3 of the inequality in human quality-adjusted human capital between the richest and poorest 20 percent of the population.

**120. Socioeconomic status, preschool attendance and family structure are 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.

**121. Inequalities in learning and in access to quality education exacerbate socioeconomic differences in education outcomes over time.** Box 4 shows that socioeconomic differences in educational attainment persist among Malaysians even after short-run background factors such as age, sex, and family wealth quintiles are accounted for. Inequality is considerably diminished when long-term background factors, including parents' educational attainments, are controlled for. 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. Despite some limitations<sup>31</sup>, the analysis points to the need for attention to investments aimed at providing pre-primary education and improving the quality of basic education services. Only these investments can mitigate the effects of long-run background factors and level the playing field for all Malaysian children.

#### **Box 4. Explaining socioeconomic differences in educational attainment in Malaysia: A need for higher quality investments in pre-primary and primary education?**

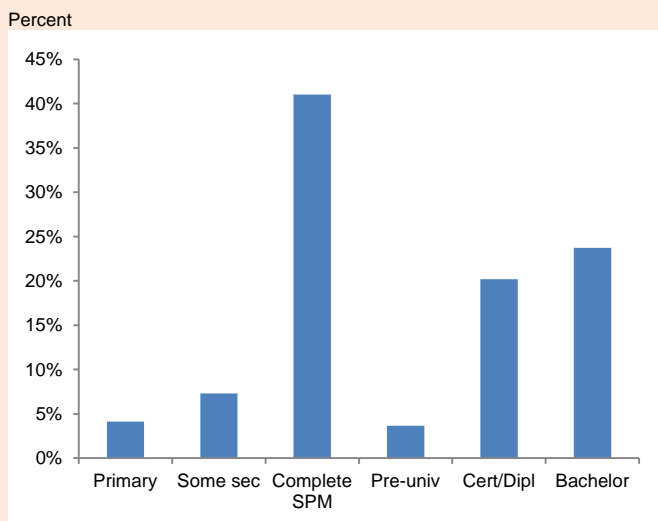
Lathapipat (2013) uses data from Malaysia's Household and Income Survey conducted in 2012 to examine the factors underlying socioeconomic differences observed in educational attainments of young adults. The study follows King and Lillard (1987) in its ordered probit approach and Lathapipat (2013) for 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 that are perceived to be important in shaping cognitive and non-cognitive abilities during a child's formative years.

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 93). This model includes the "short-run" background factors of age, sex, and family wealth quintile indicators as regressors. As Figure 94 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 10.

<sup>31</sup> Studies on gaps in college attendance and high school completion of youths from different socioeconomic backgrounds find that the role of family income is greatly diminished once scholastic ability, in addition to long-run family characteristics, is controlled for (Carneiro and Heckman, 2002; Cameron and Heckman, 1998, 1999, 2001; and Belley and Lochner, 2007). As measures of cognitive ability were not available in these Malaysian data, it is not possible to test this hypothesis, and the effect of family wealth on educational attainment is quite likely overstated as a result.

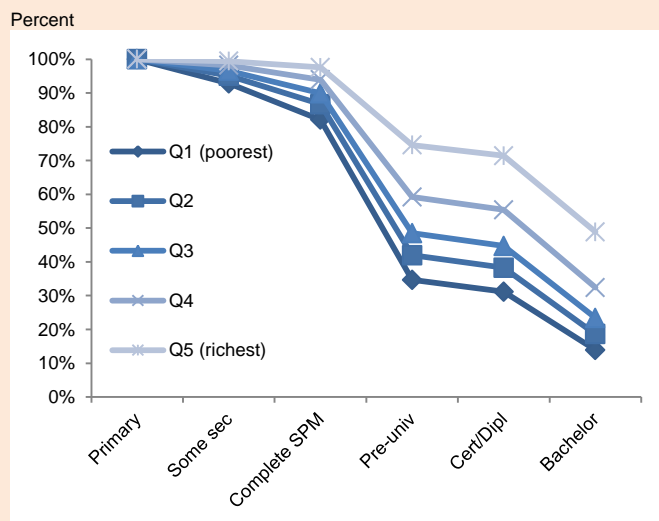
As a second step in this analysis, another “adjusted” model is run which controls for a detailed set of so-called long term background factors in addition to the short term ones adjusted for in the first model. These long-term factors are father and mother’s highest educational attainment, household size, household occupational status, ethnic group, urban or rural area, and distance from primary and secondary schools. 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.

**Figure 93. Estimated final schooling attainment distributions for 19–25 year-old Malaysians (2012 Cohort)**



Source: Lathapipat (2013a)

**Figure 94. Estimated final schooling attainment distributions for 19-25 year-old Malaysians by family wealth quintile (2012 Cohort) – Unadjusted**



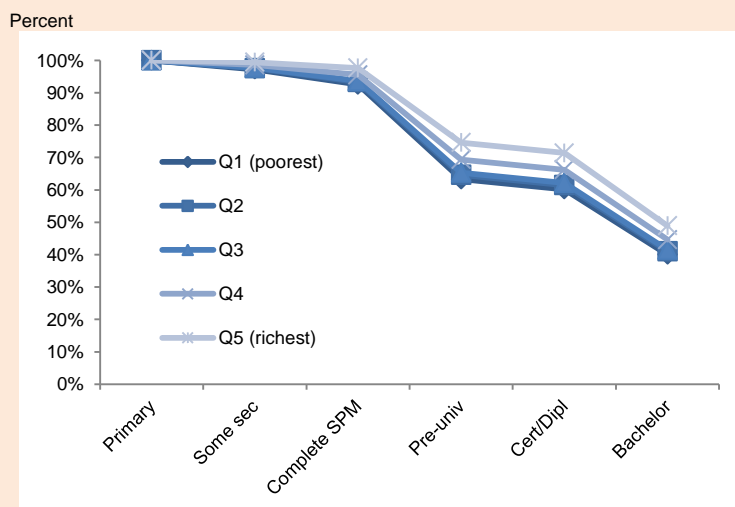
Source: Lathapipat (2013a)

**Table 10: Estimated Wealth-Related Gaps in Educational Attainment for 19-25 Year Olds Adjusted for short term factors**

	Enrol in secondary	Complete SPM	Enrol 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 (2013a)

**Figure 95. Estimated Final Schooling Attainment Distributions for 19-25 Year-Old Malaysians by Family Wealth Quintile (2012 Cohort) – Adjusted for long-term factors**



Source: Lathapipat (2013a)

Figure 95 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 11. The largest increase in attainment inequality between the wealthiest group and the rest is observed at entry into post-secondary levels.

**Table 11: Estimated Wealth-Related Gaps in Educational Attainment for 19-25 Year Olds Adjusted for Differences in Long-Run Factors**

	Enrol in secondary	Complete SPM	Enrol 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 (2013a)

Further, in this “adjusted” model, educational attainments and occupational status of parents have a large and positive impact on children’s schooling outcomes. The importance of household wealth, even after adjusting for differences in the observable long-run family factors, is still large. The disparities are particularly severe between individuals in the two wealthiest groups and the remaining lower quintile groups.

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.

Despite this limitation of the analysis, the finding that the magnitudes of estimated coefficients on the wealth quintiles in the 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. For the government 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. It needs to tackle the more challenging task of overcoming wealth-related inequality in college preparedness 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.

Source: Lathapipat (2013a).

## Why is performance falling short of desired levels?

### Expenditure on education is high, and inefficiently allocated

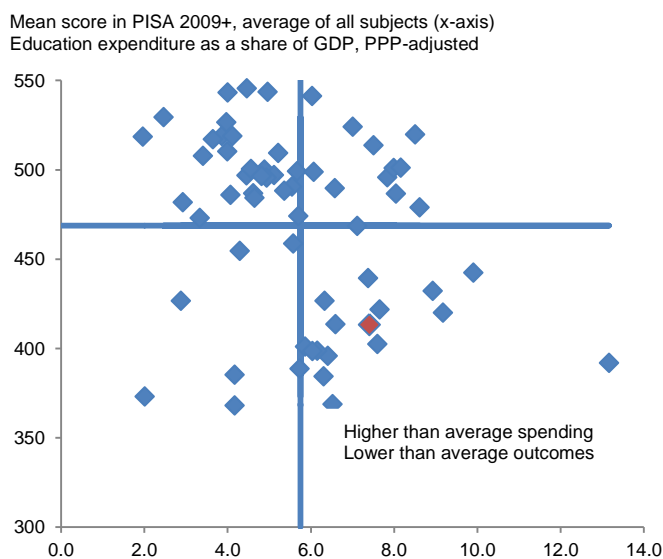
**122. Malaysia’s expenditure on basic education is relatively high, and a large share goes towards teacher compensation and incentives.** As far back as 1980, Malaysia’s public education expenditure as a percentage of GDP was the highest in East Asia (ADB, 2004), and expenditure has remained high through the decades since then. Malaysia’s public expenditure on basic education (preschool through to secondary), as a percentage of GDP was more than double that of other ASEAN countries in 2011 (3.8 percent versus 1.8 percent), and 1.6 percent higher than the Asian Tiger economies of South Korea, Hong Kong, Japan, and Singapore (MoE 2013). It was also slightly higher



than the OECD average of 3.4 percent. The expenditure on education as a percentage of total government spending is also high at 16 percent in 2011. In comparison with regional peers of Thailand, Indonesia, Singapore, Hong Kong, South Korea and Japan, as well as GDP per capita peers of Mexico and Chile, Malaysia is second only to Thailand and also almost double that of the OECD average of 8.7 percent of government spending. Further, a large share of public investment in education goes towards teacher compensation and incentives (UNESCO 2013). In terms of salary, the ratio of teacher pay to per-capita GDP is estimated at 1.1 times for seasoned teachers (OECD average: 1.2 times; source: Education Blueprint).

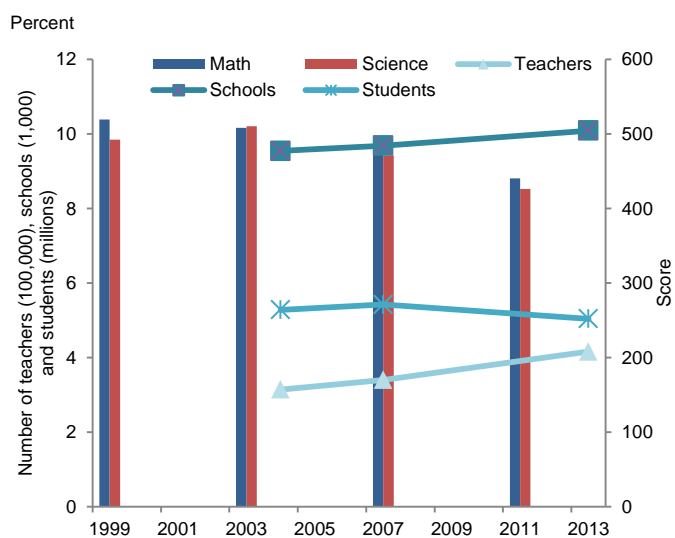
**123. The decline in learning among Malaysian children occurred while inputs to education were expanding and the size of the student population was declining.** Figure 96 shows that Malaysia's education expenditures as a share of GDP are above average for countries that participated in the PISA 2009, while outcomes are well below average. Figure 97 presents the changes in inputs to primary and secondary education in Malaysia between 1999 and 2013, and the change in learning outcomes among children during the same period of time. Between 2004 and 2013, the number of teachers employed at the primary and secondary levels increased by almost 30 percent. Further, the education system will have to absorb an increasing number of graduates from teacher trainings institutes: just between 2011 and 2013, the number of trainees enrolled increased from 37,439 to 46,491 (Figure 98). While the number of primary schools remained more or less stable, secondary schools increased by 18 percent. This expansion is taking place as the number of students enrolled both at public primary and secondary schools declined during this same period by 12 percent. Not only does this expansion in inputs appear of questionable efficiency given a declining student population, but it was also not successful in improving the quality of education – conversely, learning outcomes declined during this period.

**Figure 96. Spending is above average, but outcomes are below average**



Source: OECD, EdStats and World Bank staff calculations

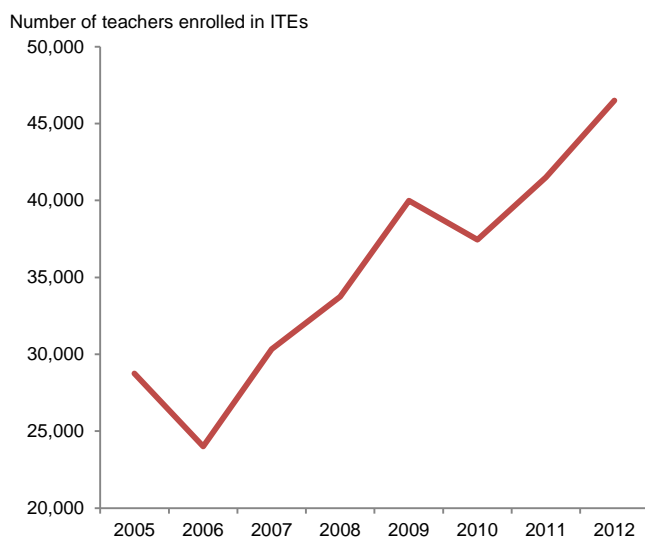
**Figure 97. Learning declined while inputs to public education expanded**



Source: TIMSS 1999, 2004, 2007 and 2011; MoE Quick facts 2008 and 2013

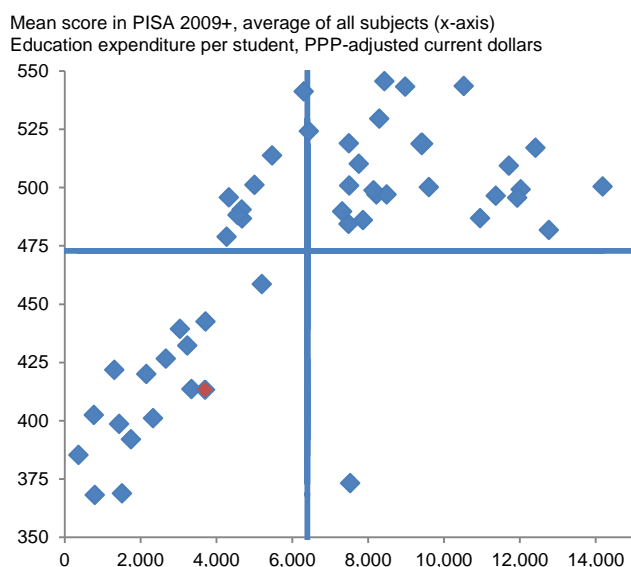
**124. This high expenditure is likely linked to low student-teacher ratios and small school size.** Compared to international norms and comparable countries in the region, teacher staffing in Malaysia is ample. Between 2004 and 2013, the student-teacher ratio at the primary level declined from 17.2 to 11.5 students per teacher, and from 16.3 to 13.0 at the secondary level (World Bank staff calculations based on data from MoE Quick facts 2008 and 2013). The numbers in 2013 were significantly lower than the OECD average of 16.1 in 2011 at the primary level and 13.5 at the secondary level, and much lower than those in South Korea (19.0 at the primary level and 16.2 at secondary level). Further, 34 percent of Malaysian primary schools have fewer than 150 students (MoE 2013) and are officially classified as under-enrolled schools or Sekolah Kurang Murid (SKM). They account for just 7 percent of total primary school enrolment. Maintenance expenses are seven times more per student at SKMs compared to those of regular schools. These higher costs coupled with lower teacher-student ratios of 1:6 versus the national average of 1:13 results in significantly higher operating expenditures at SKMs.

**Figure 98. Enrolment in Institutes of Teacher Education have continuously increased**



Source: MoE (2013)

**Figure 99. After a certain level, higher expenditures are not associated with improved outcomes**



Source: OECD, EdStats and World Bank staff calculations

**125. Higher education spending in the context of expanding inputs and declining learning outcomes indicates inefficiencies in allocation of resources for education in Malaysia.**

Malaysia is certainly not the only country where education expenditure is not correlated with learning outcomes. Evidence from developing, medium income or even high income countries generally shows that the level of spending on education is not closely related to student performance, as captured by international assessments or time series analysis within countries. Higher expenditure certainly does not guarantee better results (Figure 99). Further, a large body of research has documented the weak correlation between spending and results in education that emerges from cross-country and within country analyses—whether measured in terms of aggregate spending as a share of GDP, spending per student, or trends over time (Bruns, Filmer & Patrinos, 2011). In spite of this, in Malaysia and elsewhere, efforts to improve education have typically focused on providing more inputs to schools—increasing spending along existing allocation patterns. But when incremental funds are allocated to inputs that have weak impacts on student learning, increased funding is not sufficient to improve learning outcomes (World Bank, 2011, p. 2); indeed, it is an inefficient use of resources.

**Decentralized decision-making in a context of empowered local leadership accountable to beneficiaries is the key to effective and efficient use of resources**

**126. Efficient use of resources in for education depends on the incentives facing the various actors involved in the system.**

What explains the sometimes deep and pervasive failures of service delivery? What explains the substantial heterogeneity across settings in the extent to which education resources translate into results? The World Development Report 2004: Making Services Work for Poor People, focused on the incentives faced by the various actors involved in the delivery of public services in the developing world (World Bank 2003), and showed how the effective use of resources hinges critically on the incentives faced by system actors. As Box 5 discusses, the nature of service delivery in the education sector – and the system of incentives facing the various actors involved in the sector – is complex in that it is discretionary (how learning occurs in the classroom is at the discretion of the teacher), variable (a teacher must customize services to a large number of different students with different aptitudes, motivations, and learning styles), and transaction intensive (learning results requires repeated and frequent interaction between teachers and individual students).

**Box 5. Why service delivery in education is so complex: The role of incentives**

Incentive systems in education face a challenge that is common to most sectors and firms: the principal-agent

problem. The principal (a country's ministry of education) would like to ensure that its agents (school directors and teachers) deliver schooling that results in learning. But achieving this is complex because of the nature of the service. If education were like producing pizzas or kebabs or samosas or empanadas, the delivery process could be reduced to a set of predefined tasks that agents are instructed to carry out. Quality could be monitored by ensuring that workers follow the predefined steps.

But education services are complicated. At the point of delivery—the interaction of teachers with their students—the service provided is highly discretionary, variable, and transaction-intensive:

- Discretionary, in that teachers must use their own judgment to decide what part of the curriculum to deliver and how;
- Variable, in that in a single classroom a teacher must customize services to a large number of different students with different aptitudes, motivations, and learning styles
- Transaction-intensive, in that producing learning results requires repeated and frequent interaction between teachers and individual students.

These features make it difficult to predefine in sufficient detail the actions teachers must take, either to specify a complete contract of what they are expected to do or to monitor that contract completely. The principal-agent problem is further complicated because ministries of education are themselves the agents of the citizenry. If the “consumers” of education services were like restaurant patrons, repeat business and competition could be expected to ensure the restaurant's quality or it would go out of business. But governments universally mediate the market for education because the sector suffers from a set of market failures that government intervention can rectify. As a result, the users of education services—parents and children—are also principals trying to ensure that their country's ministry of education establishes a system that produces the high-quality education they demand. This sequential set of principal-agent problems demands a more complex system of incentives and accountability.

Hanushek and Woessmann (2007) suggest that most of the incentives that affect learning outcomes are institutional in nature. They identify three in particular:

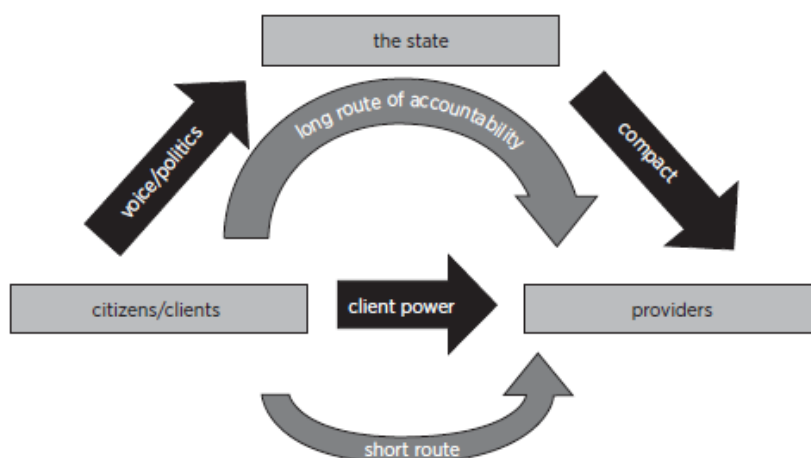
- Choice and competition. When parents who are interested in maximizing their children's learning outcomes can choose to send their children to the most productive schools they can find (in terms of academic results), this demand-side pressure will give all schools an incentive to improve their performance if they want to compete for students.
- School autonomy. Similarly, local decision making and fiscal decentralization can have positive effects on outcomes such as test scores or graduation rates by holding the schools accountable for the “outputs” they produce.
- School accountability. Quality and timely service provision can be ensured if service providers can be held accountable to their clients (in the case of education, students, and their parents).

Source: Bruns, Filmer & Patrinos, 2011

**127. Due to the complexity of service delivery in this sector, most high-performing education systems allow their schools substantial autonomy over adapting and implementing education content or allocating and managing resources.** There is a trend toward increasing autonomy, devolving responsibility, and encouraging responsiveness to local needs, all with the objective of raising performance levels, across OECD countries (OECD 2004). Most countries whose students perform well on international student achievement tests give their local authorities and schools substantial autonomy over adapting and implementing education content or allocating and managing resources. With a few exceptions, most students in OECD countries are enrolled in schools where teachers and stakeholders play a role in deciding which courses are offered and how money is spent within the schools. Moreover, greater school autonomy is not necessarily associated with wider disparities in school performance if governments provide a framework in which poorer-performing schools receive the necessary support to help them improve. In fact, Finland and Sweden—which are among those countries with the highest degree of school autonomy on many Programme for International Student Assessment (PISA) measures— have (together with Iceland) the smallest performance differences among schools (OECD 2004).

**128. By giving voice and power to local stakeholders, decentralization can increase client satisfaction and improve education outcomes.** The argument in favor of decentralized decision making in schools is that it fosters demand at the local level and ensures that schools provide the kind of education that reflects local priorities and values. By giving voice and power to local stakeholders, decentralization increases client satisfaction and improves education outcomes. School autonomy and accountability can help to solve some of the fundamental problems in education. If schools are given some autonomy over the use of their inputs, they can be held accountable for using them in an efficient manner. Decentralizing power to the school level can also improve service delivery to the poor by giving poor families a say in how local schools operate and by giving schools an incentive to ensure that they deliver effective services to the poor and by penalizing those who fail to do so.

**Figure 100. A framework for accountability**



Source: World Bank (2003)

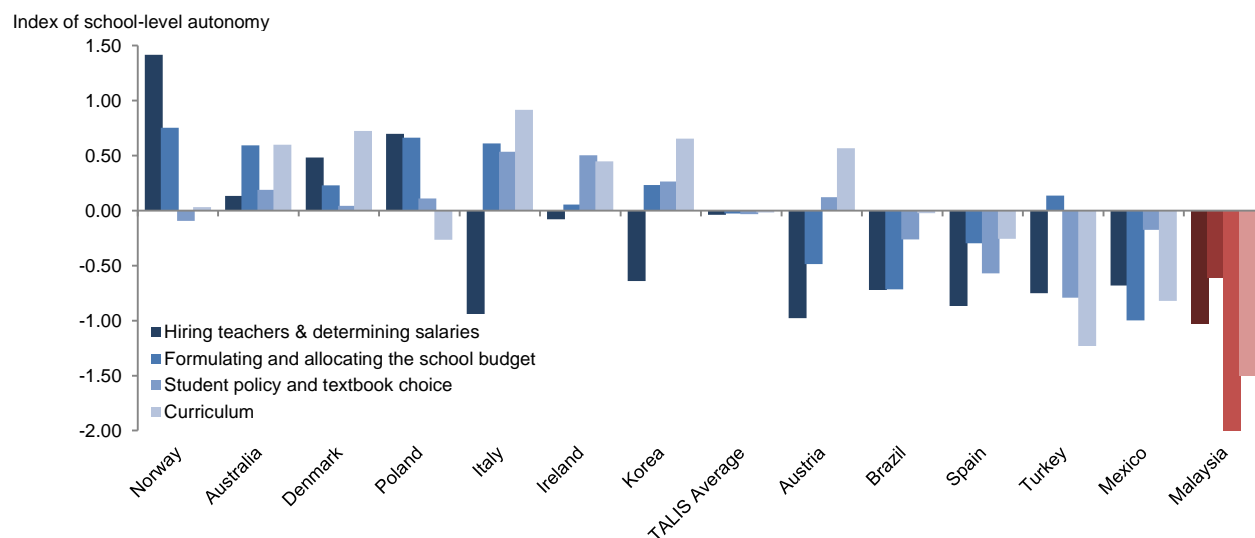
**129. A well-functioning education system balances schools' autonomy by allowing parents and students to hold education providers accountable for use of resources and results.** Figure 100 shows the set of actors and relationships that determine public sector accountability. The sequence of principal-agent problems forms a long route of accountability between the users of services and front-line providers. In a first step, the clients (parents and students) hold the state accountable. They do this by using their voice and votes, through the political process, to try to ensure that politicians and policy makers deliver the services they demand. In a second step, the state holds providers (schools and teachers) accountable for their behaviors and their results through a compact or managerial relationship (Figure 100). This compact can be implicit, as in most countries where schools are managed mostly within a ministry of education. But the compact can also be explicit in the case of vouchers, charter schools, and other strategies for contracting out services. When the state turns over the delivery of services to a non-state entity, it is forced to define the terms of a specified contract. When citizens, and poor citizens in particular, lack the voice or the political clout to hold politicians and service providers accountable for service delivery, quality can suffer.

**130. There is also a more direct route of accountability—a short route—that runs directly from users to front-line providers.** When a service is competitively provided and its quality is easy to monitor, as in a restaurant, client power is strong, and this short route is sufficient to ensure satisfactory service delivery. In education, the short route also has an important role to play. Just as there are market failures that create the rationale for government intervention in a sector, there are also "government failures" whereby the long route breaks down, and the short route can compensate for those failures. Citizens, and poor citizens in particular, may lack the voice or the political clout to hold politicians accountable through "long-route" electoral processes. Entrenched interests, or even just the inherent difficulties of monitoring service delivery, may make it hard to define or implement an effective compact. Strengthening the short route—that is, giving parents and students a direct voice in their local school—can be an important way of improving service delivery.

**131. Countries with greater local decision-making authority and greater accountability have better learning outcomes.** The focus on accountability is in part motivated by the theory outlined above—that education results depend on the effective resolution of a series of principal-agent problems that characterize service delivery in this sector. But the focus also has an empirical foundation. Cross-country analysis of international tests such as PISA and TIMSS shows that countries with greater local decision-making authority and greater accountability have better learning outcomes (Fuchs and Woessmann 2007; Woessmann 2003). More compelling yet is the growing set of experiments with school accountability reforms in developed and developing countries that show causal impacts on student learning.

*The Malaysian education system is highly centralized*

**Figure 101. Malaysian schools have low levels of autonomy**



Source: TALIS (2009)

**Table 12. School autonomy at lower secondary - TALIS 23 country study**

Percent of teachers of lower secondary education whose school principal reported that considerable responsibility for the following tasks is held at the school level

	Malaysia	Korea	23 Country TALIS Average	Malaysia rank, out of 23
1. Selecting teachers	6.9	31.2	67.7	23
2. Firing teachers	6.8	20.8	60.7	23
3. Establish teacher salaries	4.0	5.7	24.3	18
4. Determine salary increases	11.4	3.5	25.6	15
5. Professional development	33.8	63.2	60.3	17
6. Formulate school budget	68.8	77.3	75.3	17
7. Allocation within budget	62.5	94.9	88.2	21
8. Discipline policies	56.7	56.7	93.1	23
9. Assessment policies	21.6	91.1	88.9	23
10. Admission policies	21.6	85.8	85.0	23
11. Course offering	35.4	88.7	72.2	22
12. Course content	33.3	85.4	65.7	20
13. Choosing textbooks	19.0	96.7	90.0	23
<b>Average</b>	<b>29.4</b>	<b>61.6</b>	<b>69.0</b>	<b>20.6</b>

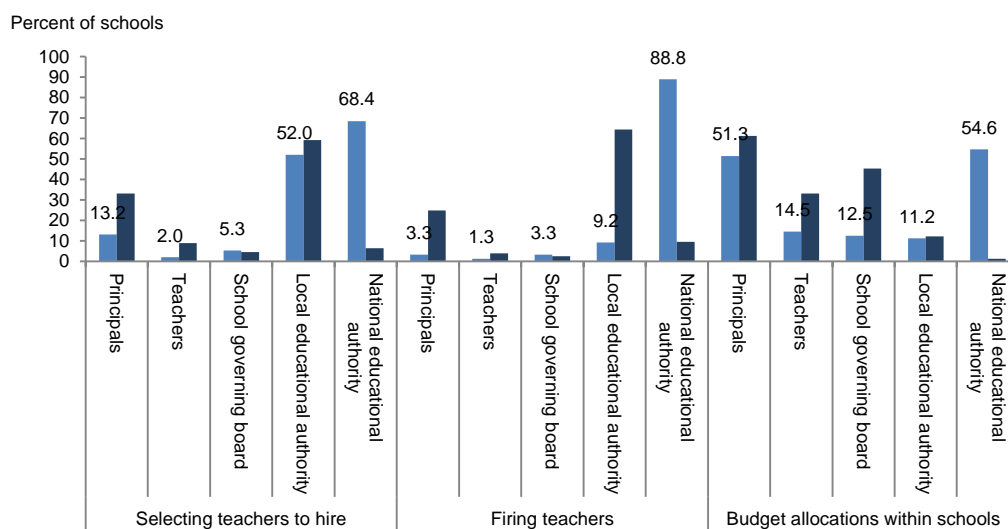
Source: TALIS (2009)

**132. In a study of 23 high- and middle-income countries, Malaysia was found to have the most centralized education system.** Lower secondary schools in Malaysia rank poorly in terms of delegation of authority (TALIS<sup>32</sup> 2009 – Figure 101

<sup>32</sup> The Teaching and Learning International Survey (TALIS) which is administered by the OECD is a large-scale study focusing on teaching conditions and the learning environment, for 23 OECD member and partner countries

and Table 12). There was considerably more decision-making authority for budgetary decisions within schools across TALIS countries compared to Malaysia. Eighty-five percent of teachers in all TALIS countries worked in schools that had considerable responsibility for formulating the school budget and deciding on the allocation of the budget within schools; Malaysia was an exception. In all TALIS countries but Malaysia, Portugal and Turkey, over nine out of ten teachers worked in schools with considerable responsibility for student disciplinary policies. In all but four TALIS countries (Malaysia, Malta, Mexico and Turkey) over 90 percent of teachers worked in schools with considerable responsibility for choosing the textbooks used in the courses they teach, and of these four countries, only in Malaysia and Turkey did fewer than 60 percent of teachers work in such schools. On average across TALIS countries, 66 percent of teachers worked in schools whose principal reported considerable school-level responsibility for determining course content. This was more common in Denmark, Hungary and Italy where over 95 percent of teachers worked in schools with considerable responsibility in determining the content of courses they teach but is found less frequently in Bulgaria (28 percent), Malaysia (33 percent), Mexico (33 percent) and Turkey (27 percent). Limited schools autonomies were granted to select schools within clusters, and later to the High-Performing Schools (HPS)

**Figure 102. Responsibility for decision-making regarding fiscal and human resources in the Malaysian and South Korean education systems, 2009**



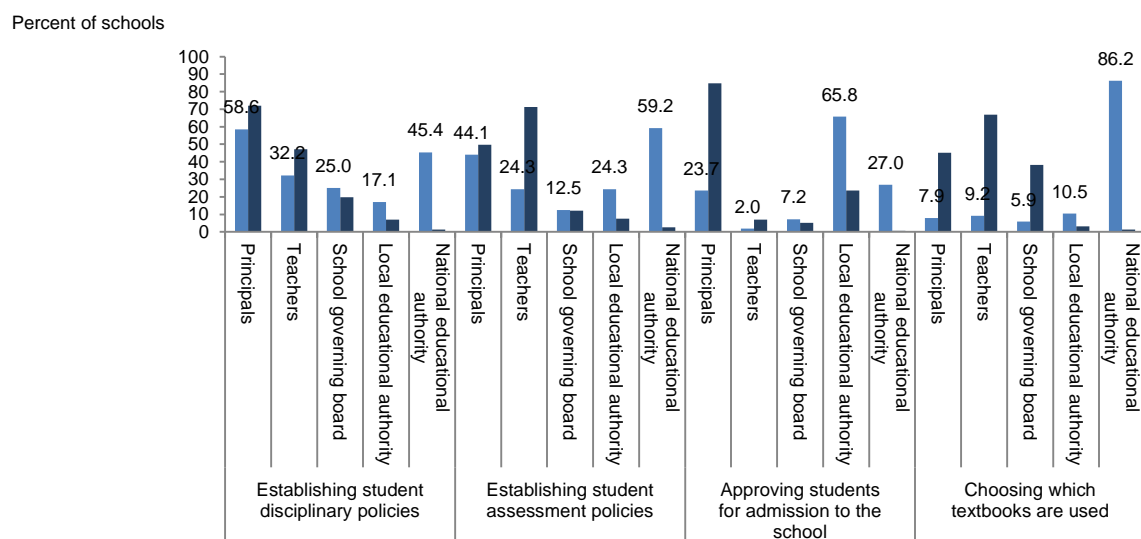
Source: PISA (2009) and World Bank staff calculations.

**133. Decisions regarding processes such as human resources and schools budgets are much more centralized in Malaysia than in South Korea.** Figure 102 compares the distribution of responsibilities for decisions related to human and fiscal resources in the Malaysian education system to those in the Korean system. The differences are striking. In the area of human resources, both in selection of teachers for hire and in firing teachers, it is the national education authority – the MoE – that has the decision-making power, while in South Korea, the responsibility is shared between local education authorities and school principals. For example, just over 65 percent of schools in Malaysia report that the selection of teachers for hiring takes place at the national level, compared to just over 5 percent in South Korea. One third of Korean schools report that principals have the most responsibility in the hiring process, compared to one in ten schools in Malaysia. The picture is similar in the area of budget allocations within schools. In Korea, the responsibility for these decisions is shared between principals, teachers and school governing boards, with national and local authorities playing a very small role, while in Malaysia the decision-making power rests with the MoE and school principals.

**134. Policies and decisions typically at the discretion of principals and teachers in a country like South Korea are made in Malaysia at the national level.** Figure 103 compares the distribution of responsibilities for various tasks in the Malaysian education system to those in the Korean system. The differences, as in the case of decision-making over human and fiscal resources, are striking. In establishing student disciplinary practices, establishing student assessment policies, approving students for admission to schools, and choosing which textbooks are used to teach, school

principals and teachers collectively have far greater decision-making power in Korea than they do in Malaysia. Teachers and principals have considerable responsibility for making assessment policies in 70 and 50 percent of Korean schools respectively, compared to 45 and 25 percent in Malaysian schools. The large role of the MoE in the latter country is striking. For example, 45 percent of Malaysian schools report that the national educational authority has primary responsibility in setting disciplinary practices, compared to 1 percent of schools in Korea. In roughly 60 percent of Malaysian schools, the MoE is again primarily responsible for establishing assessment policies, compared to 2 percent of schools in Korea.

**Figure 103. Responsibility for decision-making regarding selected school activities in the Malaysian and South Korean education systems, 2009**



Source: PISA (2009) and World Bank staff calculations.

**135. The high level of centralization in the Malaysian education system prevents efficient production and distribution of education services.** As discussed above, education systems are extremely demanding of the managerial, technical, and financial capacity of governments and, thus, as a service, education is too complex to be efficiently produced and distributed in a highly centralized fashion, as is the case in Malaysia. As such, local decision making and fiscal decentralization could have positive effects on outcomes such as test scores or graduation rates, if schools can be held accountable for the outputs they produce. High-quality, timely service provision can be ensured if service providers can be held accountable to their clients—who, in the case of education, are students and their parents.

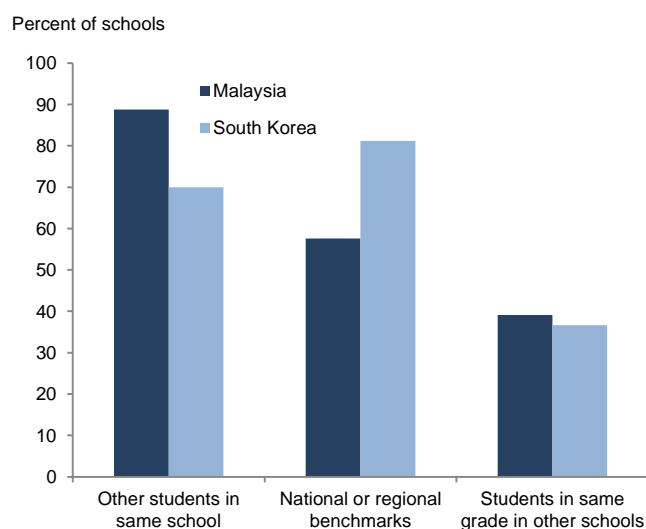
*Parental involvement in schools is low, with limited information available to hold schools accountable for performance*

**136. Relatively few Malaysian schools share information with parents on performance relative to regional or national standards.** The vast majority of the schools in Malaysia do share information on children's academic performance with the children's parents (Figure 104). The fraction of schools who share with parents information on a child's performance relative to that of other children in the same school is higher in Malaysia (almost 90 percent) than in South Korea (70 percent). However, a big difference is that far fewer schools benchmark performance against national or regional standards. In this aspect, Malaysian schools perform significantly worse (roughly 55 percent) than those in South Korea (80 percent). That said, the differences in the extent to which information for accountability is shared with parents in these two countries are not very large. What is likely different is the way in which this information is used, the extent to which various stakeholders in the education system are able to use this information to hold service providers accountable, and finally their ability to take appropriate action to penalize or reward service providers, as needed.

**137. Parents participate in their children's education, but involvement of parent groups in key school-level functions is limited.** A 2011 survey of 1,800 Malaysians nationwide conducted by the Minister of Education showed that a large fraction of Malaysian parents are involved with their children's education, at least outside the school: 60 percent of

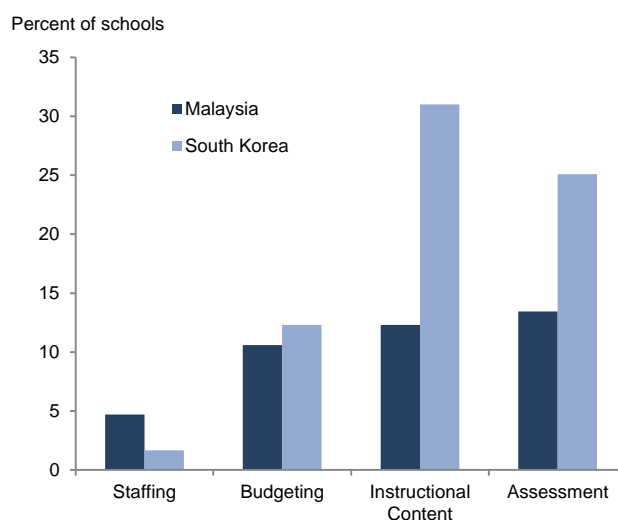
parents report spending some time every day helping their children with their homework. Further, 50 percent say that they spend some time every day talking with their children about school. However, while parental interest in a child's education while at home could play an important role in the child's learning through an effect on the home environment, it may not necessarily translate into a participatory process to exert pressure on the school or the education system at large to deliver higher quality services. To capture parental involvement in schools, PISA (2009) also collected information on the strength of the influence of parental groups on key school level functions such as staffing, budgeting, instructional content and assessment (Figure 105). Once again, differences between Malaysia and South Korea were small. There was very little influence of parent groups on school staffing, and about 1 in 10 schools reported that parent groups had any influence on the school budget, and South Korean schools performed similarly. However, South Korean schools were significantly likelier to report involvement of parent groups in instructional content (31 vs. 12 percent), and in assessments (25 vs. 13 percent). The relatively low parent group involvement in Malaysia is not surprising given the low level of autonomy at the school level: Malaysian schools themselves (principals and teachers) have very limited decision-making power when it comes to these functions.

**Figure 104. Share of Malaysian schools that provide information to parents on their child's academic performance relative to others, 2009**



Source: PISA (2009) and World Bank staff calculations.

**Figure 105. Share of Malaysian schools in which parents' groups have influence over various school activities, 2009**



Source: PISA (2009) and World Bank Staff calculations.

**138. Parents participate in their children's education, but involvement of parent groups in key school-level functions is limited.** A 2011 survey of 1,800 Malaysians nationwide conducted by the Minister of Education showed that a large fraction of Malaysian parents are involved with their children's education, at least outside the school: 60 percent of parents report spending some time every day helping their children with their homework. Further, 50 percent say that they spend some time every day talking with their children about school. However, while parental interest in a child's education while at home could play an important role in the child's learning through an effect on the home environment, it may not necessarily translate into a participatory process to exert pressure on the school or the education system at large to deliver higher quality services. To capture parental involvement in schools, PISA (2009) also collected information on the strength of the influence of parental groups on key school level functions such as staffing, budgeting, instructional content and assessment (Figure 105). Once again, differences between Malaysia and South Korea were small. There was very little influence of parent groups on school staffing, and about 1 in 10 schools reported that parent groups had any influence on the school budget, and South Korean schools performed similarly. However, South Korean schools were significantly likelier to report involvement of parent groups in instructional content (31 vs. 12 percent), and in assessments (25 vs. 13 percent). The relatively low parent group involvement in Malaysia is not surprising given the low level of autonomy at the school level: Malaysian schools themselves (principals and teachers) have very limited decision-making power when it comes to these functions.

**139. Information on school and staff performance is fragmented in Malaysia and not useful for performance management or strengthening of accountability relationships.** The vast majority of teachers participating in the TALIS



(2009) study of secondary schools reported that their performance was evaluated by school principals on an annual basis. However, 40 percent of teachers also agreed or strongly agreed that poor performance is tolerated with no consequences. Thus while some information on teacher performance is being collected, it is not used to hold teachers accountable for learning. The MoE also collects information on school performance, for example, student scores on national exams. However, it is not possible to link performance data to school inputs, which is necessary for assessments of efficiency in spending. Further, as seen earlier, while schools do regularly share information with parents on individual student performance, information on how schools perform, or the inputs they receive, relative to other schools at the local or national level is not shared with parents. Also, teachers spend a large amount of time on administrative duties – anywhere from 15 to 30 percent depending on the data source (MoE 2013), duties which include time spent on administrative paperwork, filling out student report cards and tracking student attendance in class. Clearly a lot of information is being generated in the system – but it isn't clear whether this information is useful for performance management. The information is also not being shared with stakeholders outside the government, for example parents, so its use for holding schools and the state accountable for outcomes is extremely limited.

### *Malaysian schools that are more autonomous, and more accountable to parents, perform better*

**140. Malaysian schools that are more accountable to parents and have greater autonomy tend to display better learning outcomes.** Analysis of student scores in the 2009 PISA shows that in Malaysia, students at schools where parents exert pressure for higher results perform significantly better than in schools where such parental pressure is absent (Box 6). Further, when accountability mechanisms seem to be in place – for example, with schools making student performance data publicly available – schools that have greater autonomy over what is taught and how students are assessed tend to show higher student performance than those with less autonomy. Similarly, when schools have greater autonomy in resource allocation, students tend to perform better under accountability pressure from parents. Schools with peer-based accountability mechanisms in place (i.e. systems that recognize how well teachers are doing in comparison to their peers or to a performance standard) also tend to perform better. Use of student achievement data to evaluate principals was also associated with enhanced performance.

**141. Autonomy and accountability go hand in hand – school autonomy without accountability lowers performance of Malaysian schools.** It is critical to note that high-performing education systems are able to balance the autonomy of schools and teachers with performance assessment, and accountability on performance to parents and the communities they service. If an education system is to respond to rapidly changing needs of a growing economy, its institutions – whether schools, universities or vocational training centers – must have the autonomy to make important decisions. South Korea's system, especially at the higher levels, is remarkable because it is driven and held to account by a private sector that responds to market forces. The smaller and elite public sector also has direct links to private sector employers. Institutions have the autonomy to make changes in their curriculum and other policies that allow them to respond (Salmi and Kosaraju 2012). But critically, these institutions are then held accountable for results. The need for accountability mechanisms to balance out autonomy at the school level is visible in the Malaysian data (Box 6): When student achievement is not made public, higher autonomy at the school level tends to lower schools' efficiency scores by 2 percent. Similarly, in the absence of parental engagement, schools with greater autonomy in resource allocation tend to perform worse than schools with less decision-making power.

#### **Box 6. Do accountability and autonomy matter for learning outcomes in Malaysia?**

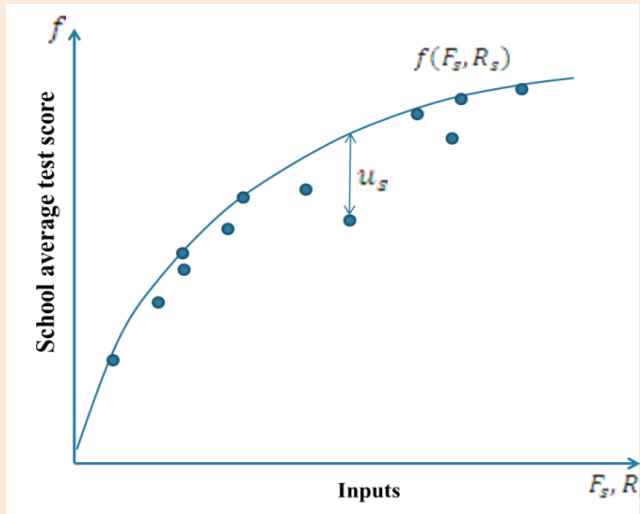
In a background analysis prepared for this report, survey data from the OECD Programme for International Student Assessment (PISA) 2009 were used to assess how various student and schools characteristics, as well as system level factors such as accountability and autonomy, affect learning in mathematics and science in Malaysia. The analysis highlights factors underlying student success and their relative impacts on learning.

In the first stage of the analysis, applying a stochastic frontier panel data model (Meeusen and Van den Broeck, 1977; and Aigner, Lovell and Schmidt, 1977) to PISA 2009 for Malaysia sheds light on the factors that influence learning outcomes in the country. Under this methodology, the educational production function (Figure 106) is the maximum score attainable by students, given production inputs at the student and school levels. Inputs or explanatory variables considered are household rank on the OECD Social, Economic and Culture Status (ECCS), preschool attendance, gender, family structure and grade level at the student level, and quality of school's

educational resources, student-teacher ratio, proportion of certified teachers, and extent of community involvement at the school level. In this analysis, the score means an average of science and mathematics scores attained on the PISA.

**Figure 106. The educational production function**

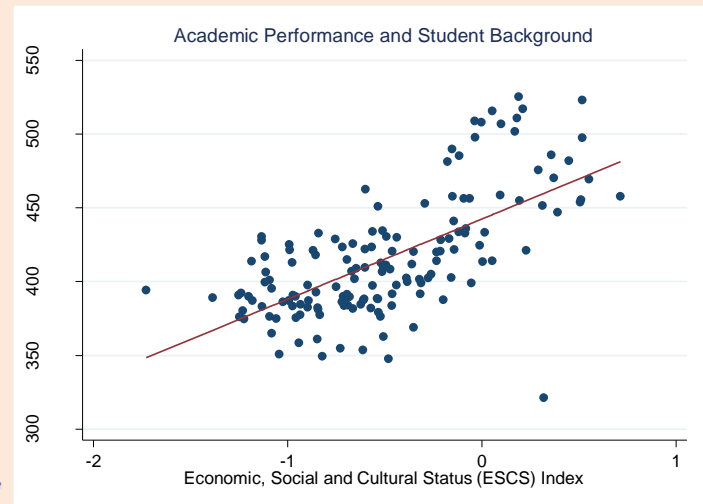
Percent of schools



Source: Meeusen and Van den Broeck, 1977; and Aigner, Lovell and Schmidt, 1977

**Figure 107. Performance on PISA is strongly positively correlated with the socioeconomic status**

Percent of schools



Source: PISA (2009) and World Bank staff calculations

The main findings from the first stage of the analysis are as follows:

- As noted earlier, there is a strong and positive relationship between scores attained and student economic, social and cultural status (Figure 107).
- The student's household ranking on the index of economic, social and cultural status (ESCS) has a large and significant effect on learning. This effect of ESCS persists even after controlling for school resources and other school level factors. A reduction in the ESCS index of two standard deviations from the sample mean reduces the maximum obtainable PISA scores by 5 percent, while an increase of two standard deviations increases scores by 6 percent.
- Preschool attendance was associated with a 5 percent increase in scores. It is notable that the magnitude of the effect is comparable to that of 2 standard deviation increase in ranking on the ESCS index.
- 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.

The second stage of the analysis examines impacts of organizational variables on the school-level production efficiency score, derived from the educational production function in the first stage described above. The organization variables of interest here are measures of accountability and autonomy in the system. In an additional step, the unconditional quantile regression methodology (Firpo, Fortin and Lemieux, 2006, 2009) is used to study the marginal effects of these variables for each marginal or unconditional distribution of the school-specific efficiency.

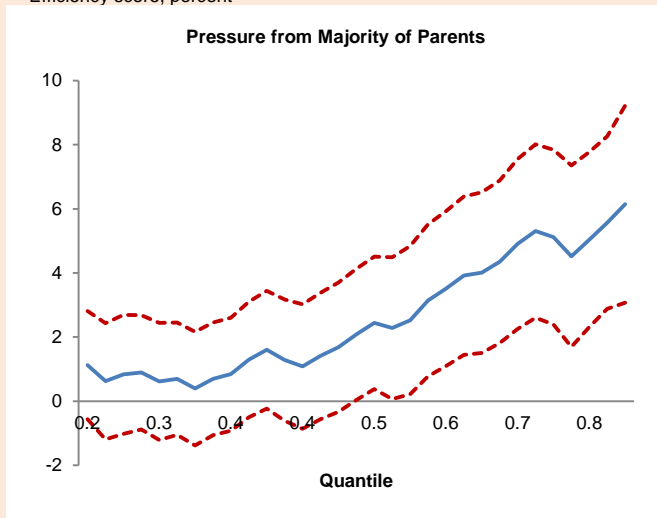
Overall, the analysis finds that greater autonomy in decision-making related to curricula design, assessments, and resource allocation are associated with higher student achievement, particularly when schools operate within a culture of accountability and transparency. Importantly, autonomy affects student achievement negatively unless decentralization in decision-making is balanced in the system with transparency and accountability.

- Schools where parents exert pressure for higher results perform significantly better (Figure 108). The result is particularly strong in schools with high achievement.
- When schools account for their results by posting achievement data publicly, schools that have greater autonomy over what is taught and how students are assessed tend to show higher student performance than those with less autonomy (Figure 109). When student achievement is not made public, school autonomy tends to lower the efficiency score by 2 percent.

- When schools have greater autonomy in resource allocation, students tend to perform better under accountability pressure from parents (Figure 110). When there is no such parental engagement, schools with greater autonomy in resource allocation tend to perform worse. This result is especially strong for students in high performance schools.
- Schools with peer-based accountability mechanisms in place, i.e. systems that recognize how well teachers are doing in comparison to their peers or to a performance standard, tend to perform better.
- Use of student achievement data to evaluate principals was also associated with enhanced performance.

**Figure 108. Schools where parents exert pressure for higher results perform significantly better**

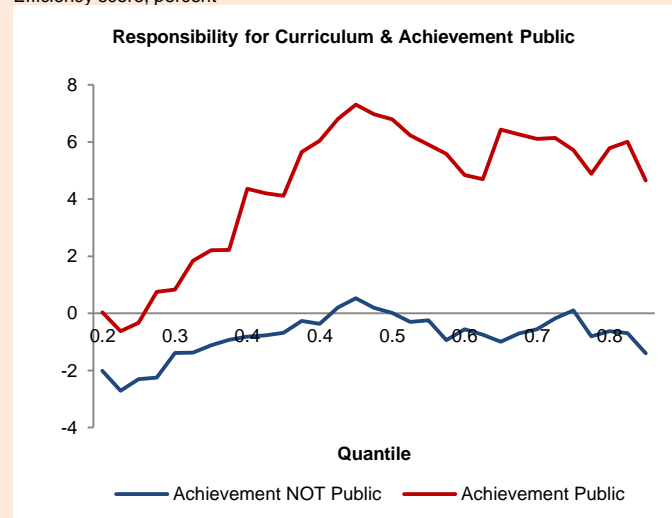
Efficiency score, percent



Source: PISA (2009) and World Bank staff calculations

**Figure 109. When schools have greater autonomy in resource allocation, students tend to perform better under accountability pressure from parents**

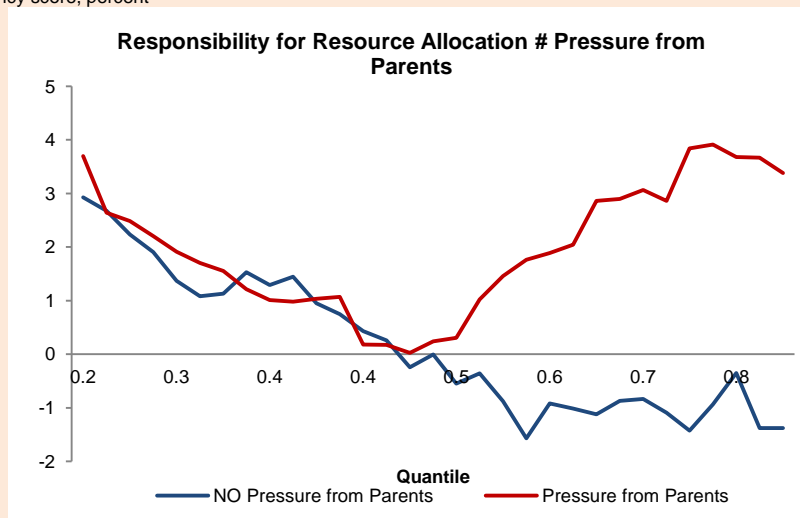
Efficiency score, percent



Source: PISA (2009) and World Bank staff calculations

**Figure 110. When schools have greater autonomy in resource allocation, students tend to perform better under accountability pressure from parents**

Efficiency score, percent



Source: PISA (2009) and World Bank Staff calculations

In sum, these findings underscore the significance of parental interest and pressure for academic performance. Teacher peer review programs can also help, allowing teachers to help and learn from each other to improve quality of teaching. Further, use of performance data and linking student achievement to evaluation of school

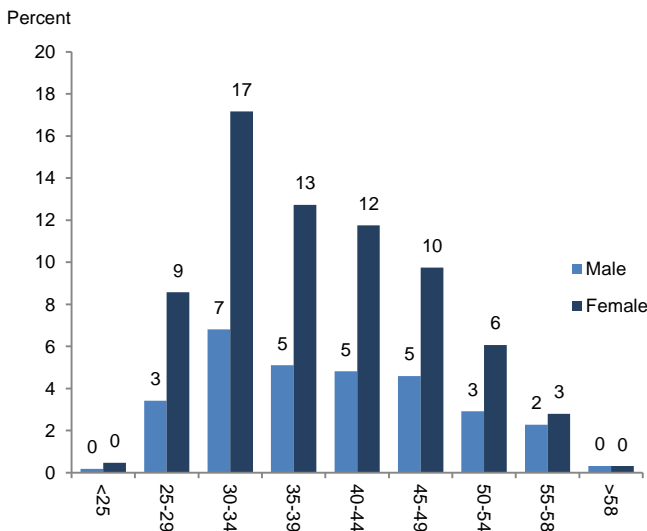
administration could be critical to improving outcomes.

Source: Jithitikulchai (2013)

### Teacher numbers are ample, but quality is a major concern

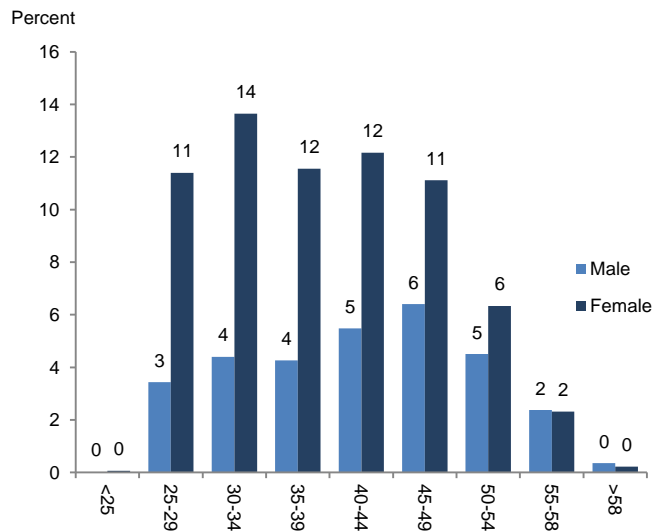
**142. The teaching force expanded significantly in the past decade while student numbers have declined, lowering the pupil-teacher ratio and reducing class sizes.** A look at the age distribution of teachers in primary and secondary schools reveals that the modal age group is 30-34 years (Figure 111 and Figure 112), implying a significant expansion of teaching personnel in the past ten years. Teacher numbers increased even as student number declined, thus reducing pupil-teacher ratios from 19:1 in 2000 to about 13:1 in 2012, compared to the OECD of 16:1. Although this masks variation between schools and geographic areas, as a result in 2011, about 92 percent of primary schools in Malaysia and 88 percent of secondary schools had class sizes of less than 35 students (Blueprint Exhibit 5-5).

**Figure 111. Percent of primary school teachers by gender and age group, 2013**



Source: MoE (2013)

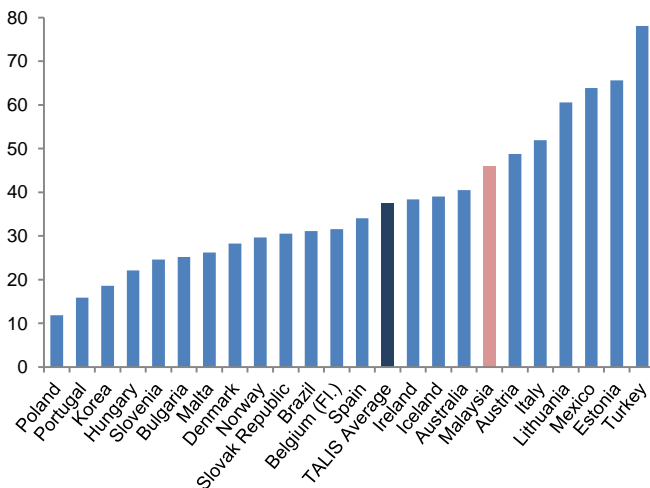
**Figure 112. Share of secondary school teachers by gender and age group, 2013**



Source: MoE (2013)

**Figure 113. Lack of qualified teachers perceived to hinder instruction 'a lot' or 'to some extent'**

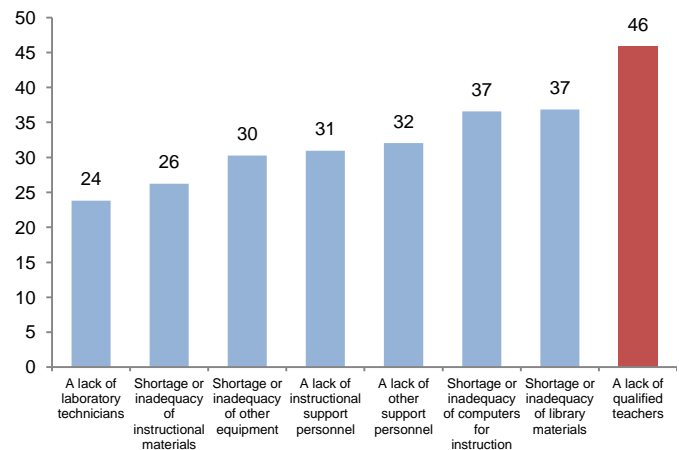
Percentage of teachers of lower secondary education whose school principal reported that a lack of qualified teachers hindered instruction 'a lot' or 'to some extent' in their school



Source: TALIS (2009)

**Figure 114. Lack of qualified teachers the top constraint in Malaysia**

Percentage of teachers of Malaysian lower secondary education whose school principal reported that the following resource issues hinder instruction 'a lot' or 'to some extent' in their school

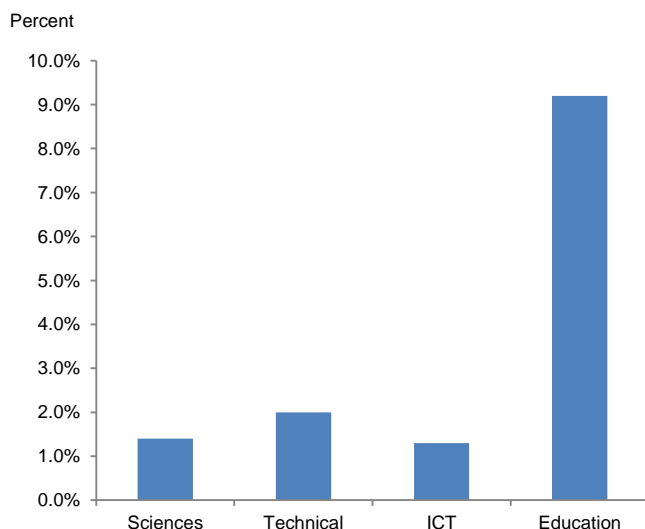


Source: TALIS (2009)

**143. Despite an expanding teaching force, a large fraction of Malaysian schools reports shortages of qualified teachers.** At the same time, the TALIS study (2009) found that Malaysia had an above-average percentage of school principals (46 percent) who considered a lack of qualified teachers as a factor hindering instruction (Figure 113). In Korea, a country with a high average class size, only about 19 percent of teachers worked in schools whose school principal reported that a lack of qualified teachers hindered instruction, one of the lowest percentages among TALIS countries. In fact, lack of qualified teachers was identified as the top constraint in Malaysia (Figure 114). Thus, in spite of a relatively low student to teacher ratio and an increasing number of teachers hired into the Malaysian education system, schools still appear to face a shortage of qualified teachers, suggesting that the skills of existing and newly-minted teachers fall short of desired levels.

**144. A shortage of qualified teachers may be linked to insufficient selectivity at entry.** Despite a large number of graduates from Institutes of Teacher Education (ITE), the number of inadequately trained teachers, especially in primary schools, is high (UNESCO 2013). While Malaysian teachers are relatively well paid and competition for spots in education programs appears keen, there is still need to encourage more high-quality graduates to the teaching profession. Among applicants to the PISMP (Bachelor of Education) program, 93 percent of applicants in 2010 were considered not to meet academic requirements (individuals who scored fewer than 3 A's in the SPM)<sup>33</sup>. Among those who were offered a place at PISMP, 70 percent had performed at this level (data on actual enrolments is not available).<sup>34</sup> In 2012, about 3 percent of offers to the PISMP and 7 percent of offers to the post graduate teaching course (KPLI) went to high performers. One observer reported that it was seen as inefficient to offer entry into teacher training institutes to the top performers, as they were unlikely to enroll if offered a position. This stands in striking contrast to top-performing systems like Singapore and South Korea, where only the top 10 to 30 percent of students are accepted into the teaching profession.

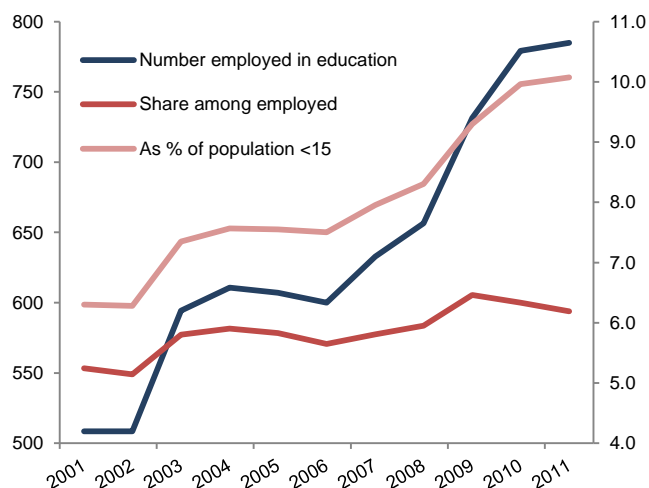
**Figure 115. Probability of employment among higher education graduates in Malaysia, 2010-2011, by type of higher education**



Source: World Bank (2013a)

**Figure 116. The ratio of education employees to young Malaysians has increased by 3.5 percentage points**

Personnel employed in the education sector (left axis); percent (right axis)



Source: DoS, Labor Force Survey time series and World Bank calculations

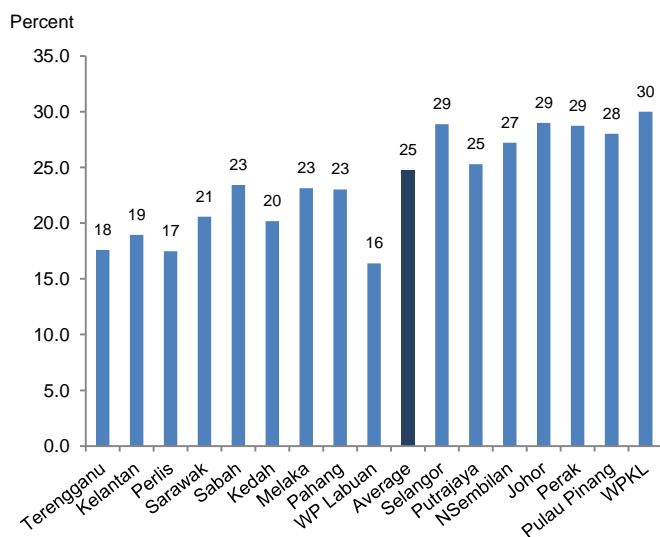
<sup>33</sup> PISMP is one of two programs offered by MoE's Institutes of Teacher Training (ITE). The other is the KPLI (post-graduate teaching course). In addition, two teacher training programs are run by IPTAs (universities), which account for 50 percent of the intake.

<sup>34</sup> The Blueprint reports that by 2012, 65 percent of the students who received offers for the PISMP were high performers (scoring at least 7 As in the SPM), while only 3 percent of offers went to candidates with fewer than 3 As. This appears to have been driven by a drastic reduction in offers (from 5,881 in 2010 to 1,370 in 2012 – see MoE, 2013). However, as enrolment in ITEs actually increased by over 10 percent in 2013 compared to 2012 (to 46,491), it appears that a shift of recruitment from the PISMP to the KPLI took place. The KPLI had lower standards as of 2012 as only 12 percent of candidates receiving offers were high performers (Education Blueprint, page 5-3). Moreover, half of teacher training is performed by IPTAs and quality data is not available.

**145. Labor market dynamics suggest that the teaching profession is less competitive than other fields.** As shown earlier, recent graduates of tertiary education face unemployment rates considerably higher than those in the general Malaysian population. Figure 115 disaggregates unemployment rates among tertiary graduates by field of study. Compared to holders of degrees in Arts and the Social Sciences, degree holders in Education are 9 percentage points more likely to be employed. Indeed, among tertiary graduates, degree holders in education are by far the most likely to be employed. Moreover, Figure 116 shows that the number of employees in education has been increasing both in absolute numbers but also as a share of the labor force and as a share of the population under 15 (thus reflecting declining teacher-pupil ratios). This is likely a result of the current policy of relatively large enrolments in ITEs and effectively guaranteed employment to all graduates of teacher training colleges.

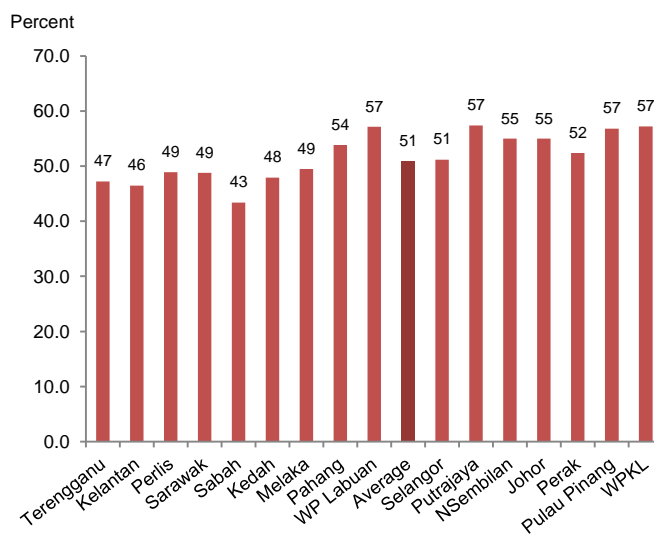
**146. Proficiency in the English language among English-language teachers is very low, and it is particularly low among English-language teachers at primary schools.** In response to concerns that the English language skills of children in the public school system were lower than desirable and that this in turn was a result of low quality of instruction, the government tested in 2012 the proficiency of English-language teachers teaching English as a subject at the primary and secondary levels. Figure 117 and Figure 118 presents the fraction of English-language teachers who chose English as their preferred subject to teach, and who attained the “proficient” level in the testing.<sup>35</sup> Overall, a mere 25 percent of these English teachers in primary school were actually proficient in the language, and hence did not need any further training to improve their skills in the English language. At the secondary level, this fraction rose to 51 percent of teachers. Thus, not only is the vast majority of the Malaysian teaching force not ready to teach English today, because they do not possess the necessary language skills, the deficiency in skills is particularly acute at the primary level, which is the level at which it is easiest to develop language skills among children.

**Figure 117. Proportion of English-option English-language Primary Malaysian teachers who tested proficient in English, 2012**



Source: PEMANDU (2013) and World Bank staff calculations

**Figure 118. Proportion of English-option English-language Secondary Malaysian teachers who tested proficient in English, 2012**



Source: PEMANDU (2013) and World Bank staff calculations

**147. It is likely that proficiency in the English language among Malaysian teachers more generally is low as well.** A small but sizable fraction of English teachers tested for proficiency in the English language were teachers who had expressed a preference to teach a subject other than the English language, but nevertheless for a variety of reasons

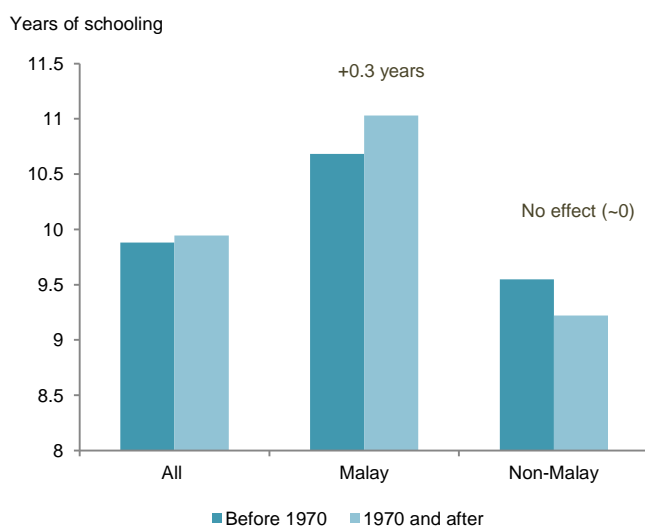
<sup>35</sup> It is possible that there is something special about these “non-English option” English teachers that doesn’t allow us to generalize proficiency levels among them to the bigger teacher population in Malaysia. For example, they may be teaching in particularly challenging rural schools where English (and other) teachers are in very short supply, or overall teacher quality is very low. In this case, they would likely reflect the very low end of the proficiency spectrum, as opposed to average English-language competence in the larger teacher population. Overall, English-language teachers in 2012 constituted roughly 14 percent of the all teachers in the country.

were teaching English at the time of the language assessment. At the primary level, these “non-English” option English teachers constituted 37 percent of all English teachers and 23 percent at the secondary level. Proficiency in English among these “non-English option” English teachers was considerably lower than that among the “English-option” English teachers described above: a mere 12.6 percent and 29.9 percent of the “non-English option” English teachers at the primary and secondary levels respectively were found to be proficient in English, i.e. a full 12 and 21 percentage points less likely to be proficient than the “English-option” English teachers at the two levels respectively. If the “non-English” option English teachers can be considered to be representative of teachers in the teaching force who teach a subject other than English, then these results suggest that English proficiency levels are low among Malaysian teachers as a whole – especially at the primary level.

### The change in the medium of instruction had multiple effects

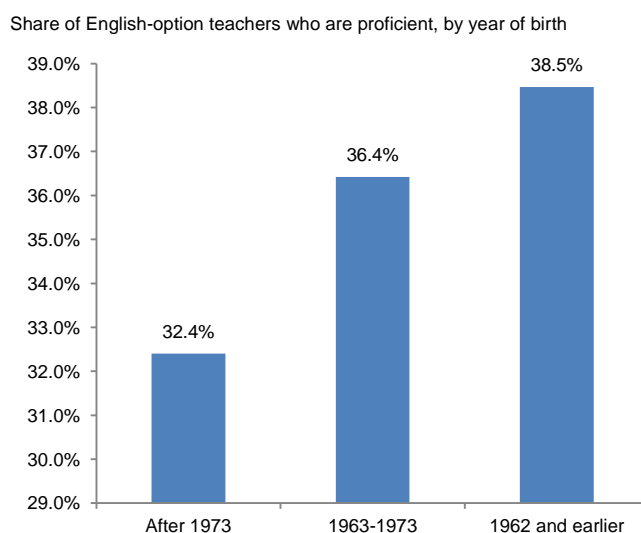
**148. The 1970 change in the medium of instruction from English to Bahasa Malaysia may have improved educational and labor market outcomes for ethnic Malays.** Analysis in World Bank 2013a measures the effects of past changes in the language of instruction in the Malaysian education system. The first change occurred with the switch to Bahasa Malaysia for English-language primary schools in 1970. The 1970 change of the medium of instruction did not appear to have an impact—positive or negative—on schooling levels for the Malaysian population as a whole or for non-Malays. Instead, the switch appears to have resulted in an increase of 0.3 years in schooling for ethnic Malays (Figure 119). The introduction of Bahasa Malaysia as the language of instruction increased the probability of reaching post-primary and post-secondary schooling, and had a small impact on increasing university attendance. The change also led to a 4.6 percent increase in the wages of Malaysian workers, with the effect clearly driven by the large impact on wages of ethnic Malays (5.7 percent). The impact for the other ethnic groups was minimal. While these results are consistent with the pattern for educational attainment, the estimated wage increase is large relative to the corresponding change in schooling. This may reflect the fact that the policy change did not only affect the quantity of education acquired by Malaysian students but also the quality of their learning. Perhaps students could learn more per year of schooling when school was more easily available in their own language.

**Figure 119. The impact of the 1970 change in medium of instruction on schooling appears positive for Malays**



Source: World Bank (2013a).

**Figure 120. Teachers who went through English primary education are more likely to be proficient**

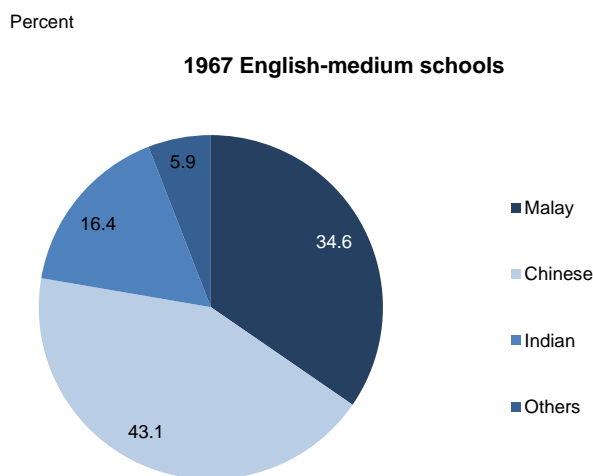


Source: PEMANDU, World Bank staff calculations.

**149. Two possible side-effects of the change in the language of instruction were a decline in English-language skills and greater ethnic stratification.** Evidence from the proficiency level of English teachers suggests that teachers born before 1963 (i.e. those who had the option to go to English medium primary schools) are more likely to be proficient (Figure 120). With respect to ethnic diversity, Yong (2013) argues that the change in language of instruction has contributed to the limited diversity in today’s primary schools. He points to the fact that English medium schools had a more diverse student body, although it was not representative of the Malaysian population (Figure 121).

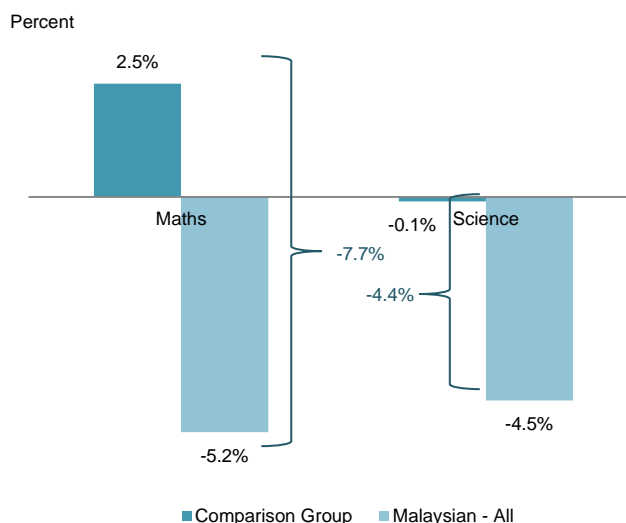
**150. As implemented, the 2003 change in language of instruction from Bahasa Malaysia to English for Science and Mathematics may have contributed to the decline in learning outcomes as measured in the TIMSS.** World Bank (2013a) also measured the effects of the second change in the language of instruction in the Malaysian education system, which occurred with the introduction of English as the language of instruction for mathematics and science in 2003. The report evaluates how this change affected the performance of Malaysian students between 2003 and 2007 using TIMSS data. As implemented, the 2003 language policy change appears to have had a negative impact on the mathematics achievement of 8<sup>th</sup> grade Malaysian students. Although overall performance may have deteriorated for a number of reasons, a comparison with similar countries suggests that the policy may have played a role (Figure 122).<sup>36</sup> Results also show that the effects of the policy change were heterogeneous across ethnic groups; the mathematics TIMSS scores decreased by 5.1 percent for Malays and 5.6 percent for non-Malays.

**Figure 121. English-medium schools were diverse relative to contemporary primary schools**



Source: Yong (2013).

**Figure 122. 2003 change in language of instruction for science and math – Impact on TIMSS scores**



Source: World Bank (2013a).

**151. While the analysis supports the view that teaching in a language familiar to learners facilitates learning, the main takeaway is that policy changes related to medium of instruction disrupt learning and skill acquisition.** The results discussed above are in line with earlier research that shows that students learn best when taught initially in their mother tongue in preparation for a bilingual or multilingual education (see Ball, 2010). Further, switching the language of instruction from one familiar to both students and teachers to a less familiar one may have had a detrimental impact on learning outcomes. However, the study does not shed light on the mechanisms through which these impacts on learning came about. Specifically, it is not known to what extent the deterioration was due to the fact that children learn better in their maternal language, or that given the speed of the change, schools were not prepared to implement the policy change, or that teachers did not have the skills necessary to teach in English. Declines in learning outcomes among the non-Malay children suggest that the latter may be the case, and that policy changes on language of instruction, regardless of the direction of the change, are disruptive for learning and acquisition of skills. Either way, and given that the Government has already made a policy decision in 2012 to revert to teaching Science and Mathematics in Bahasa Malaysia, it would likely be most productive to concentrate efforts on improving the quality of teaching English as a second language.

<sup>36</sup> The scope of the analysis in World Bank 2013a is not to identify the factors behind the low TIMSS scores of Malaysian eight graders but rather to estimate the relative impact of the policy change. The analysis is based on three waves of data from the TIMSS. Changes in test scores between 1999 and 2003 are used to select an appropriate comparison group. The scores of Malaysian students relative to those in the comparison group in 2003 (before the policy would have an impact) are then compared to those relative scores in 2007 (by which time 8<sup>th</sup> graders would have been through it).



## Strategies to improve performance

**152. An emphasis on information for accountability, school-based management, and teacher incentives may be considered for improving performance especially with respect to quality of education.** Although a variety of accountability reform strategies have been adopted in OECD, middle-income, and low-income countries over the past two decades, the following three strategies each have a clear rationale for how reforms might translate into improved learning outcomes:

- School-based management: decentralization of school-level decision making—autonomy—to school-level agents
- Information for accountability: generation and dissemination of information about schooling rights and responsibilities, inputs, outputs, and outcomes
- Teacher incentives: policies that link pay or tenure directly to performance.

## Moving towards school-based management

**153. By giving voice and power to local stakeholders, decentralization within the Malaysian education system could increase client satisfaction and improve education outcomes.** As discussed earlier, the Malaysian education system is highly centralized, with the locus of decision-making with the national Ministry of Education, and little or no decision-making ability resting with schools. Education systems are extremely demanding of the managerial, technical, and financial capacity of governments and, thus, as a service, education is too complex to be efficiently produced and distributed in a highly centralized fashion. The argument in favor of decentralized decision making in schools is that it fosters demand at the local level and ensures that schools provide the kind of education that reflects local priorities and values. Decentralizing power to the school level can also improve service delivery to the poor by giving poor families a say in how local schools operate and by giving schools an incentive to ensure that they deliver effective services to the poor and by penalizing those who fail to do so.

**154. The MoE's District Transformation Program is one step towards giving voice and power to local stakeholders.** The District Transformation Program (Wave 1 of the Education Blueprint, 2013-2015) aims to increase decision-making power at the district level. MoE plans to shift responsibility of engaging with schools to the PPDs, and have the Head Office and JPNs play a more strategic role. The officers at the federal level will minimize direct school engagement and focus on setting policies and strategy while providing central services such as data collection, and curriculum and assessment development. The JPN role will focus on supporting PPDs to deliver their new responsibilities and will have minimal direct interaction with schools. The JPN will be responsible for determining district targets, managing the performance of PPDs, facilitating collaboration between districts, and allocating resources to districts that need it most. The PPDs will become the frontline and support the improvement of school performance. Even more so than they do currently, they will engage directly with schools on a regular basis to coach, mentor, and monitor performance.

**155. Capacity building measures targeting development of leadership competencies among JPNs and PPDs will be implemented to ensure that they can execute their new roles.** The Ministry will start taking measures to strengthen the leadership of JPNs and PPDs. It will do so by evaluating the performance of existing JPN and PPD leaders against a set of leadership competencies. Clear rubrics will be developed for each required leadership competency to enable objective assessments. Leaders will be grouped into high-, medium-, and under-performing, with those in the medium- and under-performing groups provided with tailored capability-building support to further develop their leadership abilities. By the end of 2013, all JPN and PPD leaders will have been assessed and upskilled. Current JPN and PPD leaders who are unable to demonstrate improvement despite the additional support may be redeployed to other positions upon evaluation.

**156. Waves 2 and 3 (2016 - 2025) of reform will bring increased operational flexibility for states and districts, with a final stated objective of enhanced autonomy at the school level.** The MoE expects that by strengthening state and district management capabilities, the number of Bands 6 and 7 schools will be significantly reduced by the end of Wave 1. At that point, the Ministry will look into giving state, district, and school leadership greater independence. At the state and district level, the Ministry will look to provide greater operational flexibility over budget allocation and personnel deployment. Further, the Ministry will change existing regulations to give schools greater flexibility over curriculum timetabling, as long as they are able to deliver the learning and content standards expected. By the end of Wave 2,

the MoE expects that most if not all schools would be ready for greater school-based management and autonomy. Given this, the Ministry will start exploring the introduction of new infrastructure that will facilitate more autonomous learning both at the school and student level. This could include introducing videoconferencing facilities to facilitate twinning programs with schools in other countries, tablet computers for students to reduce reliance on traditional textbooks, and faster internet connectivity.

**157. While plans to strengthen local leadership are a step in the right direction, it is unclear that in practice states and districts will have the capacity or power to take actions needed to improve the quality of education.** The intention is to make JPNs and PPDs accountable for performance of schools under their purview, particularly for improvement in Band 6 and 7 schools. However, it is unclear that PPDs and JPNs will have the flexibility needed to make these improvements as quickly as the MoE intends. Earlier this chapter showed that there is a shortage of high-ability teachers, which places a constraint on student learning. Under the new system, PPDs will be allowed to approve teacher transfers within a district and JPNs may approve in-state transfers across districts, while the Ministry will retain the right to approve transfers between states. While this change does bestow greater flexibility on states and districts in terms of transfers, it is unclear how expanded powers to move human resources within a limited geographical area would address concerns related to differentials in teacher quality, or how human resource needs at schools will be addressed in a timely fashion. Further, schools themselves would still have no influence over who they can hire. Similarly, the greater independence and flexibility over budgets needed to be more responsive to varying needs across schools will only be accorded to PPDs in Wave 2, with nothing in Wave 1 happening to build competencies related to financial management.

**158. While the Blueprint envisions School-Based Management in Wave 3 of reform, it does not describe precisely what this SBM would entail.** The Blueprint mentions greater school-based management as a final objective in the reform process, to be implemented during the final stage of reform. However, compared to the considerable detail on the enhanced role of states and districts, the Blueprint articulates relatively little on the roles school would play in decision making relating to budget allocations, curricula and human resources. Across the world, many different forms of SBM have emerged in terms of who has the power to make decisions as well as the degree of decision making devolved to the school level (Box 7). In SBM, responsibility for, and decision-making authority over, school operations is transferred to local agents, which can be a combination of principals, teachers, parents, sometimes students, and other school community members. An increasing number of developing countries are introducing SBM reforms aimed at empowering principals and teachers or strengthening their professional motivation, thereby enhancing their sense of ownership of the school. Many of these reforms have also strengthened parental involvement in the schools, sometimes by means of school councils. Given that the Malaysian MoE intends to head towards SBM eventually, the MoE may wish to develop a more detailed vision for what schools, states, and districts would look like under SBM.

#### **Box 7. School-based management (SBM) in practice: The broad principles**

SBM usually works through a school committee (or a school council or school management committee) that may

- monitor the school's performance in, for instance, test scores or teacher and student attendance;
- raise funds and create endowments for the school;
- appoint, suspend, dismiss, and remove teachers and ensure that teachers' salaries are paid regularly; and
- approve (albeit rarely) annual budgets, including the development budget, and examine monthly financial statements.

Several initiatives seek to strengthen parents' involvement in school management through their involvement in the school committee. Parents participate voluntarily and take on various responsibilities, ranging from the assessment of student learning to financial management. In some cases, parents are directly involved in the school's management by being custodians of the funds received and verifying the purchases and contracts made by the school. Other times, school committees are also required to develop some sort of school improvement plan.

There are different forms of SBM in terms of who has the power to make decisions as well as the degree of decision-making devolved to the school level. In general, SBM programs devolve authority over one or more activities:

- Budget allocations

- Hiring and firing of teachers and other school staff
- Curriculum development
- Procurement of textbooks and other education material
- Infrastructure improvement
- Monitoring and evaluation of teacher performance and student learning outcomes.

As a strategy, SBM aims to improve the financing and delivery of education services and quality. It encourages demand and ensures that schools reflect local priorities and values. By giving a voice and decision-making power to local stakeholders who know more about the local education systems than central policy makers do, SBM can improve education outcomes and increase client satisfaction. SBM emphasizes the individual school (as represented by any combination of principals, teachers, parents, students, and other members of the school community) as the primary unit for improving education and focuses on the redistribution of decision-making authority over school operations as the primary means by which this improvement can be stimulated and sustained.

Evidence from around the world shows that SBM can, under the right condition, improve education outcomes. Past studies found that SBM policies actually changed the dynamics of the schools, either because parents got more involved or because teachers' actions changed (King and Özler 1998; Jimenez and Sawada 1999). Several studies showed that SBM led to lower repetition rates, failure rates, and, to a lesser degree, dropout rates (Di Gropello and Marshall 2005; Jimenez and Sawada 2003; Gertler, Patrinos, and Rubio-Codina 2006; Paes de Barros and Mendonca 1998; Skoufi as and Shapiro 2006). The studies that had access to standardized test scores presented mixed evidence, with countries such as El Salvador, Mexico, and Nicaragua showing positive results (Jimenez and Sawada 2003; King and Özler 1998; Sawada and Ragatz 2005; Lopez-Calva and Espinosa 2006). Other reforms such as those in Brazil and Honduras appear to have had no effect on test scores. The new evaluations, mostly randomized control trials (and, in almost all cases, preliminary results only) substantiate earlier studies.

More limited evidence suggests that SBM is a cost-effective initiative, although further work is needed in this area. Also, more cost-benefit analysis is needed. Clearly, SBM is an inexpensive initiative since it constitutes a change in the locus of decision making and not necessarily in the amount of resources in the system. If the few positive impact evaluations dominate, then SBM can be regarded as a cost-effective initiative. For example, in Mexico, the rural SBM program is estimated to cost about \$6.50 per student (which, in unit cost terms, is only about 8 percent of primary education unit expenditures, estimated at over \$800 in 2006). Moreover, the \$6.50 figure includes the allocation of resources to the parent associations and the training imparted to the parents. It also compares favorably to other common interventions, such as computers (\$500 per student, 10 computers per class), teacher salary increases (\$240 per student), or annual school building costs (\$160 per student); only student assessments have a similar unit cost, at \$6 (Patrinos 2009).

Source: Bruns, Filmer & Patrinos, 2011

**159. Once the MoE has a clearer vision for SBM in Malaysia, it could prioritize development of a plan for building capacities needed to implement SBM at the state, district and school levels.** The success of school autonomy in improving learning outcomes depends on information flows, incentives for performance, strong assessment tools, and participation of parents and community members. These policy instruments can be used to link increased autonomy and standardized financing with changes in the behaviors of stakeholders and processes at the local level (intermediate outcomes) toward making decisions that eventually lead to improved quality of learning. But implementation of each of these requires building capacities at each level of the education system, from within the MoE to state and district leadership, down to the level of schools themselves. Before SBM can be realized on the ground, the MoE must cultivate an understanding of the new rules of the game by which all stakeholders (central, local, and school-level) will participate and interact in the new education system. Capacity must also be developed to ensure that these stakeholders are able to recognize and reward high performance at the school-level and sanction schools or teachers that are noncompliant with rules and regulations. Capacity building efforts could also be aimed at local policymakers and school principals to empower them to use assessment tools at their disposal for evaluating value added and managing learning outcomes. Finally, formal channels of participation for parents and community members (school committees) can be developed so that they can support the processes of decision

making at the school – implementing this can involve reorganization of responsibilities at the school level and a concurrent shift in mindsets and potentially power dynamics between parents and school administration, and this cannot be achieved without careful planning and capacity building.

**160. SBM can be a powerful tool to improve education outcomes, but its success depends critically on design of the right incentives for school performance.** Earlier, Box 6 described analysis of PISA data which showed that Malaysian schools that are more accountable to parents and have greater autonomy tend to display better learning outcomes; however, autonomy without accountability appears to lower performance (Jithitikulchai and Lathapipat, 2013). When student achievement is not made public, higher autonomy at the school level tends to lower schools' efficiency scores by 2 percent. Similarly, in the absence of parental engagement, schools with greater autonomy in resource allocation tend to perform worse than schools with less decision-making power. These findings underline the significance of institution of the right incentives – rewards and sanctions – which must be enforceable under scrutiny of stakeholders who can hold schools accountable for performance. This finding is backed by international evidence (Box 8). Hanushek et al (2012) find that that autonomy reforms improve student achievement in high-income countries, but undermine it in low-income ones. Importantly, levels of accountability and effectiveness of the education system may constitute relevant channels through which the level of economic development affects the effectiveness of autonomy policies. Similarly, Machin and Silva's study of autonomous English academies suggests that school performance judged solely on school ratings and performance on national exams, in an autonomous environment, might incentivize schools to focus on coaching students most likely to perform well, rather than adding value by improving performance of students lagging behind (Machin and Silva, 2013). They recommend thus that incentives could be created for schools to focus on the most disadvantaged students and that they be held accountable for improvements among these children.

**Box 8. Success of school-based management depends on school incentives and strength of accountability mechanisms**

Hanushek et al (2012) in their cross-country analysis of find that at low levels of economic development, increased autonomy actually appears to hurt student outcomes, in particular in decision-making areas related to academic content. By contrast, in high-income countries, increased autonomy over academic content, personnel, and budgets exerts positive effects on student achievement. In general, the autonomy effects are most pronounced in decision-making on academic content, with some additional relevance for personnel autonomy and, less so, for budgetary autonomy. Also, the significant interaction of autonomy with the level of economic development prevails when interactions of autonomy with measures of democracy, governance effectiveness, cultural values, and effective school environments are additionally taken into account, and the latter interactions are not significantly related to student outcomes once the interaction with economic development is held constant.

Importantly, however, the analysis also suggests that local decision-making works better in the presence of external accountability that limits any opportunistic behavior of schools. Further, having generally well-functioning schools, indicated by initial performance levels, appears complementary with autonomy. In contrast to the observed dimensions of general governance, cultures, and social backgrounds, levels of accountability and effectiveness of the education system may thus constitute relevant channels through which the level of economic development affects the effectiveness of autonomy policies.

Machin and Silva (2013) survey the UK-based literature on school structures and school autonomy to identify settings in which alternative and more autonomous school arrangements can improve the educational attainments of pupils in the bottom tail of the achievement distribution. They also explore the effect of school academies on the age-16 GCSE attainment of students of different abilities up to 2009, before the Coalition Government changed the nature of the Labour academy programme. Within the UK education system, academies enjoy substantial autonomy in terms of management of their staff, taught curriculum, length of the school day and other aspects of their day-to-day functioning. Their results show that schools that converted to academies between 2002 and 2007 improved their overall age-16 GCSEs results by further raising the attainments of students in the top half of the ability distribution, and in particular pupils in the top 20 percent tail. They find little evidence that academies helped pupils in the bottom 10 and 20 percent of the ability distribution.

Machin and Silva (2013) also present hypotheses on factors underlying the low performance of UK academies, which stand in contrast to the documented successes of some US charter schools. They speculate that one possible explanation lies in how the American charter schools function, which operate on the basis of a 'charter', i.e. a performance contract granted for three to five years, defining the school's mission and goals, as well as the type of students it aims to attract. Charter schools are then held accountable to their sponsor (for example a local school board), which assesses whether these stated aims have been achieved and – if not – eventually revokes the charter. As of 2012, approximately 15% of all charter schools closed because they failed to achieve their goals. This generates sharp incentives for these schools to 'perform' and achieve their contractual aims. Since the majority of charter schools serve impoverished urban areas with the specific aim of improving the attainment of disadvantaged pupils – and is held accountable for their improvements – it is not surprising that these institutions have been effective at educating the 'tail'.

On the other hand, English academies serve a mix of students of different abilities, and are held accountable on the basis of the same performance tables used by all other schools in the country. These tend to focus schools' attention on final attainments – such as the proportion of student achieving 5 A\*-C GCSEs – rather than measures of educational progression – such as contextual value-added. It is possible that this distorts schools' incentives, which end up focusing on coaching students most likely to perform well in the national exams in order to maximize school ratings, and neglect pupils at the bottom of the ability distribution.

Thus, in order to guarantee that autonomous institutions can make a difference for the students in the tail end of educational achievement, the 'rules of the game' should be designed to make sure that schools have incentives to focus on the most disadvantaged students and, at the same time, are held accountable for these improvements.

Source: Hanushek et al (2012); Machin and Silva (2013)

**Table 13: Summary of measures to promote school autonomy**

Relevant measures proposed in the Education Blueprint		Does the Blueprint go far enough in its reform proposals?	Recommendations for the MoE
District Transformation Program - devolves some powers to state and district leadership	Grant some operational flexibility over budget allocation	Unclear how expanded powers to move human resources within a limited geographical area would address concerns related to differentials in teacher quality, or how human resource needs at schools will be addressed in a timely fashion. Schools themselves would still have no influence over who they can hire. Also, there are no explicit measures mentioned for building competencies related to financial management.	Clearly spell out the transformed roles and responsibilities of the federal government, school districts and schools with respect to: hiring teachers and determining salaries; formulating and allocating the school budget; and choosing the content of what is taught.
	Grant more flexibility over personnel deployment: State and district officials to approve transfers within states and districts		
Enhancing school autonomy	Grant greater flexibility over curriculum timetabling	The description of SBM is not clear or detailed, and the specific areas of autonomy identified, e.g. curriculum timetabling and autonomous learning, may not be sufficient to improve learning.	
	Introduce more autonomous learning, including introduction of videoconferencing facilities, tablet computers, and faster internet connectivity		

Source: Authors

Note: This list is not meant to be a comprehensive one, and only reflects the Blueprint measures deemed to be most relevant or critical to reform, in the light of the preceding analysis.

## Generating and disseminating information for accountability

**161. Information for accountability can lead to improvements in learning outcomes.** In terms of the accountability relationships discussed earlier and illustrated in Figure 100, lack of information weakens clients' power to hold providers directly accountable and also weakens citizens' voices relative to policy makers and politicians. When information can be successfully used to promote effective choice and competition, enable more effective participation in school oversight and management, and enable citizens to hold local governments accountable, it can lead to improved educational outcomes (Box 9). Using information for accountability is not a new concept. In the 1990s, the education sector in the United States experienced a large-scale increase in test-based accountability (Loveless 2005). By the end of the decade, most states had some form of statewide testing system in place, and this approach was entrenched at the federal level in 2001 as a part of the No Child Left Behind (NCLB) law. Studies of this U.S. experience have typically found that the impact of accountability on test scores has been positive (Carnoy and Loeb 2002; Hanushek and Raymond 2003, 2005; and Loeb and Strunk 2007).

### Box 9. How can information for accountability improve learning outcomes?

There are three main accountability channels through which information could affect learning outcomes: increasing choice, participation, and voice.

#### *Increasing choice*

Providing parents with hard evidence about learning outcomes at alternative schools allows parents and students to optimally go to their preferred schools. In a context where there is a choice of schools and where school level resources are linked to attendance, the information about learning outcomes can have two effects. First, it can reduce the information asymmetry between service providers (who know substantially more about what is going on in the schools) and service users. Second, the enhanced competitive pressure induced by more effective choice can induce providers to improve quality. Both of these effects increase client power in the provision of services.

#### *Increasing participation*

By publicizing rights, roles, and responsibilities and by documenting service delivery shortfalls relative to other schools in the village, district, province, or country, information can be a motivator for action on the part of parents and other stakeholders. Lack of information could lead parents and other stakeholders to believe that performance is adequate—in turn leading to complacency. The provision of information can rebalance the relationship between users and providers and spur users to action, including increased or more effective oversight of schools—thereby also increasing client power. The logical chain is that provider effort increases as a result of this intensified oversight, thereby improving education quality.

#### *Increasing voice*

Providing credible information can allow parents and other stakeholders to lobby governments more effectively for improved policies, either at the local or national level. It provides content to feed the voice that citizens use to pressure governments and hold them to account. Information can expose shortcomings and biases, and its wide dissemination can overcome information asymmetries that perpetuate inequalities (Keefer and Khemani 2005; Majumdar, Mani, and Mukand 2004). Finally, information can become the basis for political competition (Khemani 2007).

Source: Bruns, Filmer & Patrinos, 2011

**162. The Blueprint's focus on data collection and reconciling existing databases is a laudable and much-needed undertaking.** The Ministry plans to link system data (covering both operations and financial data) to obtain clearer, timelier insight into performance. Currently, financial and operational data are not linked and remain scattered across multiple platforms, such as the Modified Budgeting System (MBS), EMIS, and e-Procurement (e-Perolehan). The Ministry plans to eventually use 1BestariNet as its central platform for consolidating all data. This will entail identifying the key datasets (at the student, school, and system levels) that the system leaders require in making critical

decisions, assessing the present database's ability to meet these requirements, and training staff to ensure that they are capable of providing the required data entry and data synthesis services. These plans for reconciling data collection and management systems, if adequately implemented, represent a step towards establishing a solid platform for decision-making.

**163. However, current plans reflect only the intention to use these data to manage performance within the system, and not for strengthening system accountability to beneficiaries.** With the goal of ensuring easy and timely access to data to inform decision-making at all levels, the Ministry has stated its intention to agree with key stakeholders on a unified method for distributing information on a regular basis. However, it is unclear who these stakeholders are. Are parents included? International evidence points out that while information for accountability can improve outcomes, the specific ways in which information is distributed together with its content are critical to determining whether it can be successfully leveraged to initiate needed change. It is unclear at this point whether the MoE plans to address this, and how it will establish mechanisms for disseminating information in a way that allows parents and other concerned parties to hold school management and local leadership responsible for allocation and use of human, financial and physical resources to produce results.

**164. School level “report cards”, rankings and input-tracking interventions all offer ways to leverage information for accountability.** Across the world, the three main approaches to the use of information have so far been school-level report card programs, test-based score rankings, and participatory public expenditure or input-tracking interventions. School-level “report card” interventions come closest to the notion of creating and generating information that can be used by parents to make better choices and can empower them to participate more effectively in school management or lobby local governments for action. Middle-income countries (Brazil, Chile) have also tried the approach of using ranking of schools based on test scores as an accountability measure, an approach that originated largely in the United States. Public dissemination of school-specific information on what resources to expect—thereby mobilizing communities to monitor the resource distribution—has also been tried as an approach to strengthening accountability. Two notable experiences with this approach occurred in the Philippines and Uganda. In the latter case, the goal was to provide information through a newspaper campaign that disseminated readily understood information, dates and amounts of disbursements, allowing stakeholders to hold local administrative units (districts) accountable for the funds that they received. Each of these approaches holds promise, and any of these could be adapted to the Malaysian context.

**165. The content of information shared for accountability matters critically for success of reform:** schools achieve only the results they are held accountable for. Information for accountability reforms will by themselves improve learning outcomes – the content of the information shared matters for success. For example, a system that relies solely on test-based accountability, and judges performance of schools on the basis of performance on set examinations, will, under the right circumstances, get just precisely that: improved test scores. The danger is that improvement in test scores is the only improvement that would occur, without concurrent improvements in other aspects of learning. For example, such a system incentivizes teachers to teach to the test, with no regard to development of non-cognitive skills that might be just as important to success in the long run. In the extreme case, over-reliance on such high-stakes testing can result in exclusion of weaker students from tests, student and administrator cheating, and systemic corruption, as schools and districts devise ‘survival responses’ in an environment of increased testing and the race for resources and recognition (Box 10). More intelligent forms of school accountability, on the other hand, involve all stakeholders, including students and parents, in discussing and determining the extent to which jointly set goals have been attained. It combines data from student assessments, external examinations, teacher-led classroom assessments, feedback from parents and school self-evaluations. It also focuses on broader learning, not just knowledge of mathematics, literacy, and the sciences, but also skills, attitudes and values that are needed in a knowledge society. The goal is to reach a balance between pressure and support in schools.

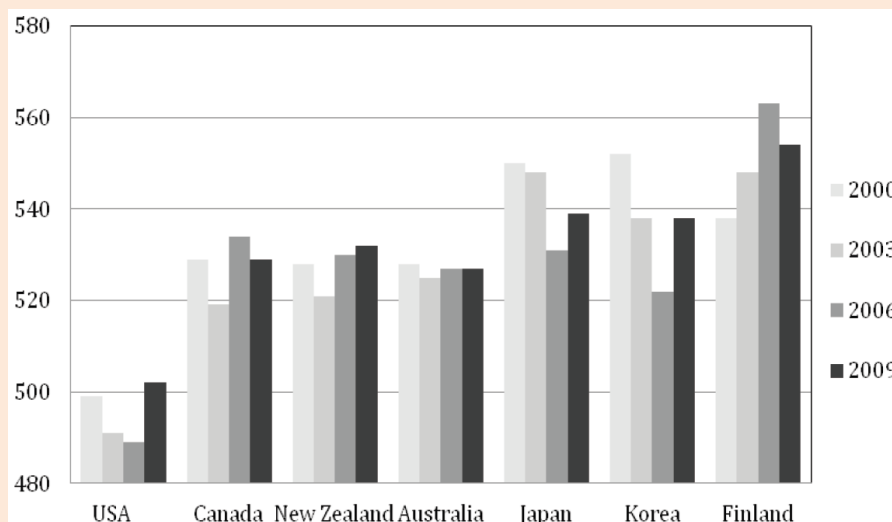
### Box 10. Balancing pressure for performance in schools with the support they need: A call for *intelligent* accountability in education

The experience of high-income countries shows that test-based accountability is not without its pitfalls. In an international review Wossmann et al stressed that according to some critics “choice and competition in schooling will hurt the most disadvantaged, thereby weaken social cohesion” (Wossmann et al. 2007). Indeed, good schools in open educational markets with choice and competition will only accept the best students, leaving behind those who are most in need of attention and care. Nichols and Berliner (2007) report that over-reliance on high-stakes testing can result in exclusion of weaker students from tests, student and administrator cheating, and systemic corruption, as schools and districts devise ‘survival responses’ in an environment of increased testing and the race for resources and fame.

Sahlberg (2010) argues that test-based accountability *alone* is not a strategy for sustainable school improvement. Nations with highly successful education systems like Finland, Slovenia, and Estonia focus on creating favorable conditions for teaching and learning by promoting cooperation rather than competition in their educational systems – competition, which in a system overly dependent on test-based accountability can be detrimental, and has been associated with stagnation or decline of student learning, often accompanied by an increase in drop-outs. Figure 123 illustrates, as an example, recent trends in learning outcomes in some countries that rely heavily on test-based accountability, in comparison with those in Finland, a country that never adopted any external test-based accountability policies.

**Figure 123. OECD PISA mathematics scores in some test-based accountability education systems, compared to Finland, 2000-2006**

Percent



Source: Sahlberg (2010)

Figure 123 does not suggest that test-based accountability as a single variable explains educational success or failure in any nation, and it certainly does not imply that chances of high educational performance would increase if no accountability policies are employed. Instead, the concern is that externally mandated test-based accountability structures in public education today have become increasingly narrow and focus almost solely on standardized knowledge tests and published test scores. Testing-driven systems often ignore deeper aims of schooling and broader goals of learning and thereby fail to consider such antecedents as curriculum development, school and classroom leadership and school–community contexts.

To ward off some of the pitfalls of test-based accountability, Sahlberg (2010) makes three recommendations. First, educational change efforts should focus on building trust and collective responsibility in schools and their communities. Autonomy that allows schools to decide their curriculum and teaching arrangements are authentic



signs of trust. So are pedagogical freedom and teacher-based assessments. Accountability policies should not jeopardize that trust and social capital in schools but should instead strengthen it. Experiences of Finland and other Nordic countries suggest that school autonomy and trust are also necessary conditions for cultivating internal responsibilities of schools. Good educational leadership in schools is able to strengthen individuals' responsibilities for their own actions and performance and also create the collective responsibilities that schools need in order to provide good learning opportunities for all.

Second, education policies should promote more intelligent forms of school accountability and match them to external accountability needs. Instead of relying solely on test-based accountability, public ranking of schools based on those tests, and related rewards and sanctions, more intelligent accountability involves all stakeholders, including students and parents, in discussing and determining the extent to which jointly set goals have been attained. It combines data from student assessments, external examinations, teacher-led classroom assessments, feedback from parents and school self-evaluations. Intelligent accountability draws on data from samples rather than census-based assessments that, by themselves, limit the stakes of student testing. It also focuses on broader learning, not just knowledge of mathematics, literacy, and the sciences, but also skills, attitudes and values that are needed in a knowledge society. The goal is to reach a balance between pressure and support in schools.

Finally, educational leadership should encourage cooperation among teachers and networking among schools. Schools should increase their internal collaboration against the external competition. High-stakes testing can increase competition between schools and teachers, and hence hold back efforts to cultivate more cooperation and networking that are essential conditions for system-wide innovation and change.

Source: Sahlberg (2010)

**166. The Blueprint's vision for engaging parents focuses on educating them on how to create an environment conducive to learning outside the school.** The school engagement toolkit implemented in 2013 aims to develop a stronger working relationship between schools and other actors, namely parents, the community, and the private sector. The toolkit enables each school to develop a school prospectus and a parent and community engagement plan. The goal of the latter is to encourage the PIBGs and the broader community to expand their focus from fund-raising to developing parent- and community-driven learning programs. Further, the national education campaign launched in 2013 centers on the key message of shared responsibility in children's education, with the objective of driving greater parental participation in children's education, invoking a greater sense of responsibility in the community for all children's development, and enabling enhanced private sector involvement in education.

**167. It is less clear how the proposed measures will strengthen the role of parents as stakeholders actively demanding high-quality education services.** These initiatives described above, including the expanded role of the PIBGs envisioned in Wave 2, focuses mainly on increasing parental participation in learning that occurs outside the home, rather than on strengthening accountability of schools and local government to parents on how schools are performing. Further, there seems to be an assumption that by theoretically giving PIBGs an expanded role, PIBG members will automatically start helping enhance effectiveness in areas such as school governance and providing input to school leadership on implementation of the national curriculum, and that parental engagement at the school level will increase as a result of this. It is not clear how the proposed measures will actually transform the existing mindset and encourage and motivate parents to participate as active stakeholders demanding high quality education services in schools, and holding school accountable for use of resources.

**168. According schools greater autonomy will not automatically translate into greater parental involvement.** Studies looking at the role of school committees in Indonesian schools following SBM reforms in the country have largely found them in a weak position relative to that of school personnel, especially the principal (SMERU, 2005, 2008). These committees concentrated on raising funds for the school to use on facilities, but rarely entered into areas related to teaching and learning. One underlying factor was the perception that committees did not have the expertise for involvement in management, teaching and learning. Another factor was institutional legitimacy, since the school principal received his/her decree from the district office, while the school committee was appointed locally. Chen (2010) similarly finds low parental involvement in school affairs, typically limited to interactions with teachers or

principals on issues related to their own children, or attending regular parents' meetings with schools. Over 80% of parents have neither provided any inputs to school, nor volunteered in school activities, such as serving as a committee member, helping classroom activities, or raising funds for schools. School committees reported being influential in community-school relations, and in planning facility improvements, but most had little or no influence on school vision and mission, budget allocation or work plan, with textbook choice, school calendar, curriculum, and teacher management falling entirely under the influence of school management. Information shared with parents was limited to report cards on students' performance, and did not include school activities and management, performance or finance. Study after study from settings around the world finds the same situation in many other settings: devolution of decision-making authority often does not translate into meaningful involvement of parents because they do not have the capacity, power or real authority to influence decision-making at schools (Duflo, Dupas and Kremer, 2012; Blimpo and Evans, 2011; Pradhan et al., 2011; Gunnarsson et al, 2009; Gershberg and Shatkin, 2007; Galiani et al, 2008; King and Ozler, 2004; Beasley and Huillery, 2013).

**169. Interventions targeting parents and local communities may be needed in order to empower them to hold schools accountable.** Studies finding that devolution of decision-making authority often does not translate into meaningful involvement of parents also suggest ways to overcome the capacity constraints to bring about change. Duflo, Dupas and Kremer (2012) find that giving parents responsibility over an extra-teacher led to a reduction in effort from civil-service teachers, but that training to empower parents helped mitigate this reduction. In Gambia, Blimpo and Evans (2011) studied a training for school committees in school management, combined with a grant to initiate activities. This project increased parent participation and pupil attendance, and decreased teacher absenteeism, but had no impact on learning except when the school committee members were educated. Pradhan et al. (2011) report on a field experiment in Indonesia using also the combination of a training and a grant to encourage school committees to participate in school management. This policy increased parent participation and learning only when combined with an intervention fostering the ties between the school committee and a local governing body. Gunnarsson et al (2009) use data from eight Latin American countries to show that parent effort (as well as principal effort and material infrastructure) is more related to parents' human capital and the size and remoteness of individual communities, as opposed to the de jure policies implemented by the different country governments. Studying four case studies of parent empowerment through School Site Councils in the United States, Gershberg and Shatkin (2007) give suggestive evidence that a condition for parent empowerment to improve school quality, school-community relations and community organizational capacity is that the institutional context gives parents enough real authority. Communities may lack the necessary capacity to effectively plan or monitor teachers, and so decentralization of school management may increase inequality by primarily benefiting the better-off and leaving the poor behind (Galiani et al, 2008). As King and Ozler (2004) demonstrate, policies of de jure autonomy do not always lead to de facto autonomy, and so participation may not be meaningful if communities have no actual power.

### *Innovation in strengthening school autonomy and accountability: Trust Schools in Malaysia*

**170. The MoE's pilot Program for Trust Schools is an innovation in which a private sector partner is entrusted with management of publicly-financed schools, and held responsible for school outcomes.** The MoE believes that individual schools and school systems that have expanded their focus from parents to the local community can boost student outcomes (Blueprint). Engaging local communities—businesses, non-profit entities, and community organizations—can bring in resources (in the form of funding and access to capabilities) beyond what the public sector may be able to afford. In this spirit, the Ministry has piloted the Trust Schools Program, with Yayasan AMIR as the private partner (Box 11). Schools under this program continue to be financed by the government, but they are managed by the private sector in conjunction with school leaders. The schools are granted decision-making freedom on school governance, curriculum, staffing and funding, and are bound by a five-year performance contract, renewable upon achieving desired outcomes.

**171. The Malaysian Trust School model could potentially address some of the accountability and autonomy concerns in the education system.** It is important to note that engagement of the private sector in management of trust schools does not solely have the advantage of bringing additional resources to schools. More importantly, the Trust School model represents a large step away from the current model of service provision where the central MoE is responsible for most decisions relating to day-to-day operations at the school level, to one where the responsibility for these decisions is handed over to a private sector partner, who, in conjunction with school leadership, is then held responsible for the performance of the school. In terms of the accountability framework discussed earlier, this change

strengthens the “long route” of accountability (Figure 100): by entrusting management of schools to an agent (private sector partner) located significantly closer to service providers than the central MoE is, and hence able to supervise day-to-day operations better, the MoE has essentially strengthened the compact between itself (the state) and the teachers at schools (service providers). Thus the Trust School model of school governance, a step away from complete centralization, could be effective for groups currently poorly served by traditional delivery methods.

### **Box 11. Trust Schools in Malaysia: An example of a public-private partnership**

At the Program's launch in December 2010, ten schools, five in Johor and five in Sarawak, were selected to form the first cohort of Trust Schools. These schools comprise both primary and secondary, National and National-type, and urban as well as rural schools. A Trust School is managed jointly by Yayasan AMIR, and civil service principals and headmasters under the umbrella of the Ministry of Education to improve student outcomes and school management capabilities. Principals maintain day-to-day operations of the school and Yayasan AMIR provides operational, management and educational expertise, as well as additional funds whenever appropriate.

The Ministry of Education provides a Trust School with greater decision-making freedom and in return requires greater accountability in the form of improved student outcomes. The outcome indicators for Trust Schools are dependent on the starting point (baseline) of each school. This includes student academic performance, stakeholder satisfaction survey comprising parents, teachers and students and non-academic elements such as attendance rate and disciplinary improvements.

At the heart of the program is the implementation of each Trust School's Trust School Improvement Plan which is prepared based on the assessment of the schools and the four strategic goals of the program:

- (i) Developing high quality leadership;
- (ii) Improving the quality of learning and teaching;
- (iii) Maximizing student achievement; and
- (iv) Strengthening the engagement of parents, community, and other stakeholders.

As the plans are implemented, it is hoped that the focus of the goals will be ingrained into the culture of the schools, bringing long-lasting transformation and improvement.

Under the Trust Schools Program, teachers are also exposed to an array of best pedagogical practices that encourage interaction and stimulate learning to produce a better-rounded student. This is through a series of teaching and learning programs and a structured performance management system. The teachers are then encouraged to incorporate what they learn into their daily classroom lessons, providing students with stimulating learning experiences to maximize student potential. The result is an improved and dynamic classroom environment, with students being more engaged and excited about learning.

School leaders also undergo on-going professional development programs to strengthen and enhance their leadership and management skills. This is to ensure that they are able to facilitate school improvement through sustainable change. Students in Trust Schools are encouraged to become critical thinkers and life-long learners, applying their creative and analytical skills whilst working independently or through team collaboration.

The program has now entered its second year of a five-year engagement with the schools. Early results show promising changes in teaching practices. From February 2012 to June 2012, lesson observation showed a 25% overall improvement in teachers. Specific areas of improvement identified by Yayasan AMIR and BPSH include:

- 33 percent increase in usage of strategic questioning to promote student thinking;
- 40 percent increase in usage of defined collaborative and cooperative learning structures; and
- 18 percent increase in usage of positive behavior management strategies.

Source: Yayasan AMIR (2012)

**172. In addition to increasing the number of trust schools, the MoE plans to endow them with even more enhanced autonomy in the future.** By the end of the second wave of reforms, the Ministry expects a total of 90 Trust Schools to be in operation throughout the country. This expansion will accommodate a more diverse set of school sponsors in addition to Yayasan AMIR— including private businesses, community organizations, and alumni bodies—as well as a more diverse set of schools. The Ministry sees particular promise in expanding the coverage of the trust school network to include under-performing schools (Band 6 or 7, or otherwise showing a declining performance in student outcomes). Finally, in Wave 3 of reform, the Ministry expects 500 Trust Schools to be in operation by 2025 (representing approximately 5% of all public schools). More importantly, the Ministry will continue to fine-tune the current operating and management agreement with Yayasan AMIR to support the success of the pilot program. These adjustments will expand the autonomies granted to the Trust Schools and enhance school effectiveness, including the provision of greater flexibility to use endowments to fund school improvement initiatives, the opportunity to introduce world-class curricula based on the IB and International General Certificate of Secondary Education (IGCSE), and the power to appoint representatives from local stakeholders to the school's Board of Governors.

**173. Evaluations of US charter schools show mixed results, with some schools successful in improving learning outcomes, but not others.** Most recent studies reviewing the evidence on American charter schools have found that these schools have varying effects on student achievement (National Charter School Achievement Consensus Panel 2006; Gill et al. 2007; Betts and Tang 2008; Bifulco and Bulkley 2008; National Alliance for Public Charter Schools 2009). Bifulco and Bulkley (2008) examined 8 studies that used individual-level longitudinal data to measure charter school impacts in five states. They found that the effects of charter elementary schools on reading and mathematics test scores were sometimes positive and sometimes negative. Betts and Tang (2008) found that “charter schools appear quite frequently to outperform traditional public schools” in reading at the elementary school level and in mathematics at the middle school level. Gill et al. (2007) focused on 14 studies that used longitudinal data. Across all the studies, the effects of charter schools in their first year were most negative; the longer a charter school operated, the more likely it was to affect student performance positively. Gleason et al (2010) also find varying impacts on student achievement across charter middle schools that held lotteries. Schools in urban areas—as well as those serving higher proportions of low-income and low-achieving students—were more effective (relative to their nearby traditional public schools) than were other charter schools in improving math test scores. On average, however, charter middle schools were neither more nor less successful than traditional public schools in improving math or reading test scores, attendance, grade promotion, or student conduct within or outside of school.

**174. Given the evidence on varying degrees of success at charter schools, there is a need to carefully evaluate the costs and benefits of managing schools under the Trust School model.** Before the MoE decides on whether to expand the network of Trust Schools, it may consider acquiring a clear idea about the costs and benefits associated with the transformation implied under the conversion of a regular public school into a trust school. Specifically, does the cost structure change under this new mode of service delivery, and if so, are the impacts felt through changes in composition of costs or the overall expenditures? What are the impacts on student learning, and through what mechanisms do they come about? A rigorous evaluation of these costs and benefits should be conducted. This information could be valuable not just for making informed decisions about policy on trust schools, but it would also shed light on how the experience of trust schools could be useful in terms of drawing lessons for other schools in Malaysia. For example, teaching methods and practices demonstrated to be successful in trust schools may still not work in other schools where management practices, structure of incentives, or accountability relationships are different. Further, Trust Schools should not be thought merely as a testing ground for trying out teaching and learning practices that could, if successful, be institutionalized and applied in schools elsewhere; rather, they should be looked upon as an opportunity for testing out an alternative model for service delivery, which, if successful, could then be scaled up at a much larger scale than currently anticipated.

**Table 14: Summary of measures to promote accountability**

What measures are proposed in the Blueprint to undertake these reforms?		Does the Blueprint go far enough in its reform proposals?	Recommendations for the MoE
Generating and disseminating information on system performance	Reconciliation of existing databases, such as the Modified Budgeting System (MBS), EMIS, and e-Procurement (e-Perolehan)	Unclear whether the linking of databases will allow linking of inputs to outputs and learning outcomes. Current plans reflect only the intention to use these data to manage performance within the system, and not for strengthening system accountability to beneficiaries.	Use "school report cards" (or other similar tools) that include information on performance and allocation and use of human, financial and physical resources to allow parents and other concerned parties to hold school management and local leadership responsible for delivering a quality education.
	Agreement on a unified method for sharing information on a regular basis with stakeholders	Unclear who the key stakeholders are, and whether they include parents	
Expand the Trust Schools Network	Increase the number of schools in the network		Given the evidence on varying degrees of success of charter schools, carefully evaluate the costs and benefits of managing schools under the Trust School model.
	Enhance autonomies at existing trust schools		

Source: Authors

Note: This list is not meant to be a comprehensive one, and only reflects the Blueprint measures deemed to be most relevant or critical to reform, in the light of the preceding analysis.

### Creating a high-ability, high-performance teaching force

**175. Recruiting practices in Malaysia, as in many other countries, have created a disconnect between teacher incentives and accountability for performance.** Recent research has established that individual teachers vary widely in their ability to help their students learn. This evidence is leading countries to reexamine how they select, groom, and motivate teachers. This research is also raising awareness of disconnects between the incentives teachers face and the results school systems want – and Malaysia is no exception. Teachers in Malaysia are recruited from graduates of teacher training institutes. These graduates are guaranteed employment upon graduation, regardless of whether they demonstrate mastery of the training program curriculum, or whether they demonstrate effectiveness in a classroom. There is thus no link between probability of employment as a teacher and real effectiveness in the classroom. Further, the education system is unable to reward the capacities and behaviors that are correlated with effectiveness, and is unable to sanction teachers who do not perform. School principals, who are far better placed to judge the quality of teachers and their day-to-day classroom performance at the school level than a centrally-based national authority, and who are also best placed to understand the specific needs of the student population covered by the school, have no or little influence over hiring and firing of teachers. This authority rests in the hands of the central MoE. Centrally-determined compensation of teachers is also not linked to performance. It is no wonder thus that the 2009 TALIS study found that over 40 percent of Malaysian teachers agreed or strongly agreed that poor performance is tolerated with no consequences.

### Transforming teaching into a profession of choice

**176. The Malaysian MoE could consider prioritizing attracting high-ability candidates into the teaching profession.** Earlier analysis revealed deep weaknesses in core skills of Malaysian teachers, as well as evidence that selectivity into teacher training institutes is a major issue. While a broader assessment of skills, for example on teacher's knowledge of science and mathematics, has not been conducted, the English-language proficiency assessment conducted in

2012 revealed unacceptably low levels of proficiency, a cause for deep concern given the deficit in language skills reported by employers. International evidence on policies to recruit great teachers has identified “the intellectual caliber of the teaching force as a critical factor that takes education systems from good to great.” Singapore, Japan, and Korea all restrict very tightly which secondary graduates enter their national teacher training institutions. The first step to fixing teacher quality in Malaysia is thus attracting highest-performing graduates of secondary school, particularly in the area of science, mathematics, and English language, to enroll at teacher training institutes. Unless this happens, changes in the salary structure or incentives alone might only lead to higher expenditure with no improvement in quality.

**177. In this regard, the Blueprint's plans for raising the profile of the teaching profession and higher entry requirements are very encouraging.** The MoE plans to work towards strengthening the status of the teaching profession to make it a profession of choice. The Ministry intends to run a targeted marketing and recruiting campaign, focusing on high-performers and other specific segments where there is a shortage of teachers. This includes areas such as English, Science and male teachers. Further, the Ministry intends to select teacher trainees for the IPG from the top 30 percent of any graduating class and may reduce the size of its intake if the applicant pool in a given year has fewer qualified candidates. This policy will also apply for the intakes in IPT. In line with the IPG's aspiration to become a world-class teacher training university, the overall standards for graduation from teacher training programs into teaching roles at the Ministry will be made more stringent. Similar measures will be adopted at the IPT. This means that in the near future, graduates will only be hired if they can demonstrate, through their practicum placement and ongoing coursework, that they have met the minimum competencies expected of a fresh, incoming teacher. The Ministry is also looking into gradually scaling back its annual intake of approximately 15,000 teachers by up to 50 percent over the next five years.

**178. Provision of scholarships and financial aid for high-performing secondary school students in Malaysia could also serve as a means to attract more able candidates to become teachers.** A number of high-performing education systems have used scholarships and financial incentives to attract top secondary school talent into their teaching systems. Singapore (Box 12) and Hong Kong provide their teacher trainees with tuition waivers and large stipends. In the UK (where there is a relative dearth of teachers in the pipeline), students studying to become teachers in the sciences receive scholarships to top universities, conditional on teaching for three years after graduation. In Latin America, Colombia has recently rolled out an ambitious student loan program to attract high performing students to the profession. This instrument of targeted financial incentives may be one way in which Malaysia can attract top secondary graduates into teaching.

#### **Box 12. How Singapore attracts great teachers**

Singapore's National Institute of Education is the country's only teaching training institution. It produces the entire pipeline of Singapore's future teaching workforce. Prospective teachers are carefully selected from the top one-third of the secondary school graduating class. In addition to high academic ability, students are also assessed on their commitment to the profession and to serving diverse student bodies. Prospective teachers receive a monthly stipend throughout their education that is competitive with the monthly salary for recent graduates in other fields. They must commit to teaching for at least three years. Interest in teaching is developed early through teaching internships for high school students; there is also a system for mid-career entry.

Source: OECD 2012

#### **Improving how teachers are prepared**

**179. Reform is needed in Malaysian teacher training institutes to better prepare and train teachers to be effective in the classroom.** Earlier analysis revealed deep weaknesses in core skills in the existing body of Malaysian teachers. Attracting high-performing candidates in the area of science, math, and English is just the first step towards producing teachers who are able to effectively teach these subjects. Language proficiency among teachers, for example, is a necessary but not sufficient condition to ensure that children learn English: a teacher may be proficient

in English, but if he is not effective in the classroom, children will not learn the language. Thus the next step is to ensure that teacher training institutes prepare and train teachers to be effective in the classroom.

**180. The MoE plans to undertake holistic reform of pre-service teacher training in the country, most significantly by strengthening the pipeline of teacher trainee recruits as well as the teacher training curriculum.** The IPG is responsible for training new primary school teachers. In 2008, all 27 IPG campuses were brought under one central management to standardize quality. The curriculum and qualifications were upgraded to offer a five-and-a-half-year foundation and degree program and a post-graduate diploma program. The MoE will undertake further reforms in a number of areas, of which two are most critical. One, it will seek to strengthen the pipeline of teacher trainee recruits, and will encourage applications from diverse academic and ethnic backgrounds, without compromising on stringent requirements for entry, including academic qualifications, pre-disposition and teaching aptitude of applicants. Second, to enhance the IPG curriculum, the Ministry will increase the percentage of time spent by teacher trainees on practicum training to 40 percent to increase the quantity and quality of practical experience teachers have before entering the system. The Ministry will also review the IPG pre-service teacher training curriculum to ensure that teachers are being adequately prepared to teach the higher-order thinking skills desired of Malaysia's students. The Ministry intends to include leadership and management skills in the IPG curriculum as well as in the CPD programmes for existing teachers. Other reforms include Improving the leadership in IPG, raising lecturer quality, upgrading infrastructure, Increasing research and innovation activities, and raising the profile of the IPG.

**181. The Ministry's plans to develop and use a new teacher evaluation instrument is the right step forward in strengthening the link between teacher performance and competencies.** The Ministry will develop a single instrument that clearly articulates the competencies expected of teachers of different tenure levels across four dimensions: teaching and learning, professional values, non-classroom activities, and professional contributions (Figure 124). This instrument will be piloted in 2013 and rolled out by 2014. The intent is for this instrument to replace all other instruments currently in use, including the LNPT. Under the new evaluation instrument, it is proposed that approximately 60% be based on the teachers' effectiveness in teaching students. This will be determined both by observations of the teacher in the classroom, as well as the student outcomes of the classes the teacher works with. The Ministry also proposes using more than one evaluator for each teacher and creating an appeal process for teachers who disagree with their evaluation. The objective is to create an approach that ensures greater consistency and objectivity across evaluations and to instill a stronger performance culture in schools.

**Figure 124. Example of competency expectations against proposed dimensions, in a new teacher evaluation instrument currently being developed by the Malaysian MoE**

Dimensions	Level					
	1	2	3	4	5	6
<b>I Teaching and Learning</b> ▪ Lesson preparation	▪ Lesson plans have clear objectives. Choice of instructional tools may not be appropriate		▪ Lesson plans have clear objectives that can be measured. Activities planned to meet objectives with appropriate instructional tools			▪ Lesson plans have clear objectives that are measurable and tailored to students' abilities. Activities planned to meet objectives using engaging instructional tools
<b>II Professional values</b>	▪ Unable to give full contribution to assigned tasks		▪ Sometimes gives contribution to assigned tasks			▪ Gives full dedication and contribution to assigned tasks
<b>III Non-classroom activities</b>	▪ Unable to prepare special task plan		▪ Prepares a plan for special tasks but not comprehensive or clear			▪ Prepares full special task plan that is clear, precise and comprehensive
<b>IV Professional Contributions</b>	▪ Does not reflect on self improvement		▪ Seeks out self improvement for career learning			▪ Seeks out relevant self improvement for career

Source: Ministry of Education (2013)

**182. MoE proposals to improve performance among existing teachers center on measures for enhanced professional development.** MoE will build up its portfolio of training programs to address each aspect of the competency

requirements in the new performance evaluation instrument described above. In developing this portfolio, the Ministry will focus more on school-based learning programs which international research shows to be the most effective form of professional development. Relatedly, two initiatives were launched in January 2013. The first was an e-Guru video library of exemplary teaching. This will enable teachers to concretely visualize good classroom skills, so that they can implement these in their own classrooms. These videos can also be used during training and coaching sessions on pedagogical skills. The second initiative is an expansion of the School Improvement Specialist Coach (SISC+) teacher coaching program first introduced under GTP 1.0. Three changes will be made. Firstly, the SISC+ will become full-time positions to allow them to work with greater frequency with more teachers. Secondly, the SISC+ will now be responsible for coaching along the three interlinked dimensions of curriculum, assessment, and pedagogy. Thirdly, the SISC+ will focus on providing school-based coaching to teachers in lower band schools (Bands 5, 6, and 7). The new SISC+ role will be rolled out as part of the broader District Transformation Program discussed earlier.

**183. Teachers will also receive training to strengthen their English language skills.** Following the English proficiency testing of 61,000 teachers in 2012, teachers in urban and suburban areas who do not meet the proficiency standard will be required to attend an English training course for four hours per week, over a span of 44 weeks. These sessions will be held outside school hours and will hence not disrupt the teaching and learning process. Teachers in rural areas that do not meet the proficiency standard will be put through an intensive English training course by 2015. The English training course comprises an 8-week immersion program and 8-week self-learning course. The immersion program is an in person, face-to-face course with 30 hours contact time each week. The self-learning course is a modular, computer-based program with 30 hours of self-directed learning per week. In total, the English training course will provide 480 hours of lessons each time it is taken.

**184. There is a need to evaluate the impact of various professional development measures on student learning before rolling them out at the national level.** There is substantial research that demonstrates that effectiveness of individual teachers (or lack thereof) remains stable over time. This holds true even when comparing teachers in the same school teaching comparable students. That is, there are some teachers who are exceptionally effective at improving outcomes, and some who are ineffective. This finding emerges from “value added” research, with a range of studies spanning the past 40 years (Box 13). The underlying causes of these differences, and the mechanisms through which they impact learning, are unclear at this time. Further, there appear to be no clear methods for transforming ineffective teachers into effective ones. Thus, when undertaking increased measures for professional development, a cautious approach would be warranted. In-service training that targets improvement along the dimensions highlighted in the new teacher evaluation instrument would be the right approach to take. Involvement of full-time coaches under SISC+ could also help. Language training may improve the English-language skills of some of the more able teachers, but these skills will not automatically translate into effective teaching practices in the classroom. Implementing these professional development measures first on a small scale would allow for an evaluation of their impact on student learning, and to commit resources to roll out these measures on a national scale only after they have been proven successful.

### **Box 13. Exposure to a good teacher can generate life-long benefits**

There is increasing evidence that teachers' ability to generate student learning is highly variable. Recent careful studies of the “value added” of individual teachers working in the same grade in the same school have begun to document that while students with a weak teacher may master 50 percent or less of the curriculum for that grade over a single school year, students with a good teacher can get an average gain of one year, and students with great teachers may advance 1.5 grade levels or more (Hanushek and Rivkin 2010; Farr 2010). A series of great or bad teachers over several years compounds these effects and can lead to unbridgeable gaps in student learning levels.

Not only do these “high value-added” teachers consistently improve student outcomes, year after year, but there are strong long term impacts that can be identified through time-series data. A number of studies have combined data on the relationship of student achievement with earnings later in life. By combining these projections of increases in earnings to the impact of an effective teacher, it is possible to estimate teacher effectiveness on



earnings. Various studies that apply this approach to US data estimate very large returns to a single year of exposure to a highly effective teacher. For example, assuming a class size of 20 students, this would result in an aggregate gain of \$214,000, in discounted net present value terms. A recent landmark study of value added and future outcomes (Chetty, Friedman and Rockoff, 2012) matched teacher value added records for 2.5 million students in grades 3-8 in 1988 to income tax records of the same students at ages 25, 28 and 30. They estimate that by replacing an ineffective teacher (low value-added) with an average teacher, the present value of additional earnings for a class of 20 students would be \$250,000. Moreover, in addition to earnings gains, students in classes with high value-added teachers were more likely to attend college, attend higher-ranked colleges, live in higher SES neighborhoods, and save more for retirement.

Source: Hanushek and Rivkin 2010; Farr 2010; Chetty, Friedman and Rockoff, 2012

**185. The MoE may also consider using the new evaluation instrument actively during pre-service teacher training.** The MoE's vision to use the evaluation instrument as a guide for in-service training may be useful; however, the use of the instrument need not be limited to professional development of employed teachers only. One possibility is to actively incorporate it into the IPG curriculum, so that teacher trainees are exposed to and trained on required competencies from day 1. Additionally, at the end of teacher training education, the MoE could consider testing, in a standardized way, teachers' skills and competencies, linked to the evaluation instrument, as part of the exit exam. These tests can be used to monitor the quality of teacher training and the quality of graduates over time, and expose differences in the quality of different teacher training institutes. Further, they may be used as instruments to identify highly talented teacher candidates who may be placed at underperforming rural or remote schools. Many countries are shifting to this competency-based approach. A new program in Brazil, for example, requires new candidate teachers to undergo a training course of 80 hours in classroom dynamics – drawing largely on the Stallings method<sup>37</sup> – after which they are observed and evaluated before their contracts are confirmed.

### *Improving performance in the classroom*

**186. The MoE hopes to strengthen the link between teacher performance and competencies, rewarding teachers who demonstrate improvement on competencies with faster promotions.** After the introduction of the new teacher evaluation instrument in Wave 1 (2013-2015) of reforms, the Ministry intends to enhance the career progression of high performing teachers in the second stage of reforms. Under the revised fast-track scheme, high-performing teachers are expected to be promoted faster, increasing their total lifetime earnings. Progression speed will depend on how quickly each teacher masters the competencies expected of each level. Extra credit will be given to teachers who successfully complete short, three-to-five-year deployments in rural and/or under-performing schools. This accelerated movement is intended to reward outstanding performance and to incentivize the best teachers to work in such schools. It will also shift the current composition of the teaching force from one that is predominantly filled with junior-level teachers towards one with more teachers at higher skill levels.

**187. Measuring value teachers add to educational achievement of their students would be a useful feature of the new teacher evaluation instrument currently being developed.** Teachers differ dramatically in their performance, with large consequences for students. However, many education systems presently employ teacher evaluation systems that result in all teachers receiving the same (top) rating. In the US, for example, a recent report (Weisberg et al., 2009) focusing on thousands of teachers and administrators spanning twelve districts in four states found that even though all the districts employed some formal evaluation process for teachers, all failed to differentiate meaningfully among levels of teaching effectiveness. One area of evaluation of teachers that has recently come to the fore focuses on the contribution they make to the learning of their students, value-added. The teacher's contribution can be estimated in a variety of ways, but typically entails some variant of subtracting the achievement test score of a teacher's students at the beginning of the year from their score at the end of the year, and making statistical adjustments to account for differences in student learning that might result from student background or school-wide

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<sup>37</sup> This entails a time-on-task classroom observation guide to assess effectiveness of teacher management and performance in relation to students' opportunities to learn

factors outside the teacher's control. These adjusted gains in student achievement are compared across teachers. Arguably, value-added based evaluation instruments can be superior to other measures of competence when making decisions regarding human resources (Box 14).

**Box 14. Value-added evaluation approaches can play an important role in human resource decisions in education**

Glazerman et al. (2010) argue for the usefulness of the value-added approach in making difficult and important personnel decisions, such as in identifying which effective teachers to keep on the job while dismissing ineffective ones. Value-added, they argue, is a better tool for that purpose than other measures such as teacher experience, certification status, seniority, and principal ratings, even though it is imperfect.

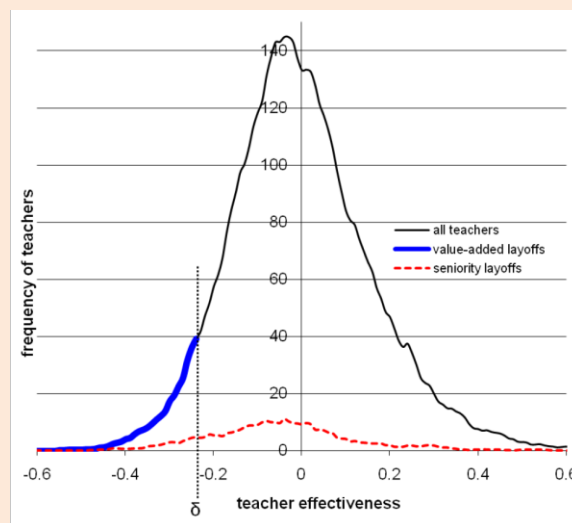
They consider a particular example that arose as a consequence of the deep recession in the US: the need of districts to lay off teachers as a result of budget shortfalls. Managers in most industries would attempt to target layoffs so as to cause as little damage as possible to productivity — less productive workers would be dismissed or furloughed before more productive workers

Suppose school district leaders were similarly motivated and had flexibility in deciding how to proceed. Imagine three possible approaches for deciding who would be dismissed. The first approach would employ the existing teacher evaluation system based on principal ratings, which identifies a few teachers as unsatisfactory but categorized the vast majority of teachers as satisfactory. The second approach would employ teacher experience, which has been found in a number of studies to have a statistically significant positive association with student achievement. The third approach would use teacher value-added scores to identify the lowest performing teachers.

Researchers have compared these three approaches using data from fourth and fifth grade public school teachers in New York City and simulating the elimination of enough teachers to reduce the budget by 5 percent (Boyd et al, 2010). A graph from that study (Figure 125) illustrates the results for student achievement if the positions of teachers with the lowest value-added scores were eliminated vs. the positions of teachers with the least experience. The horizontal axis is teacher effectiveness as indexed by student gains whereas the vertical axis is the number of teachers. Teacher effectiveness scores are those regularly calculated by the NYC public schools and could encompass teacher performance going back as far as four years.

**Figure 125. Lay-off decisions using a value-added approach would remove more ineffective teachers from the New York City public school system than decisions based on seniority or principal ratings**

Frequency of teachers



Source: Boyd et al (2010)

Note that if teachers were laid off based on seniority they would be distributed across the full range of performance

in terms of effectiveness in raising student test scores whereas teachers laid off based on low value-added scores would be at the bottom of the distribution. In other words, many more effective teachers would be retained were layoffs based on value-added than were they based on seniority. Principal ratings, not shown in the graph, perform better than teacher seniority in identifying teachers with low effectiveness in raising student achievement, but not nearly as well as value-added scores.

Source: Glazerman et al. (2010)

**188. It would be useful for the new evaluation instrument being developed to allow for careful monitoring of teaching practices in addition to student test score results.** Having standardized information on classroom teaching practices in addition to test score results would provide policy makers with intermediate information on strengths and weaknesses in the learning process. In the United States, a recent large-scale evaluation of teacher policies relied on a prominent tool—the Vermont Classroom Observation Tool (VCOT)—that may offer a suitable starting point for Malaysia. VCOT is part of a broader assessment process that includes both pre-observation and post-observation interviews. The protocol focuses on four areas: planning and organization of a lesson, implementation of a lesson, content of a lesson, and classroom culture. The VCOT reportedly measures those teacher practices that current research suggests are essential to good teaching or that have been linked to student achievement. In the United States, a recent large-scale evaluation of teacher policies relied on this tool (Glazerman et al. 2009). According to the researchers involved in the evaluation, who reviewed all available tools for this purpose, VCOT has a number of desirable features, including an appropriate level of detail on teaching practices that are deemed to be good instruction, the ability to capture complex teacher behaviors, such as whether a teacher makes connections between reading and writing. The instrument is also relatively simple to implement.

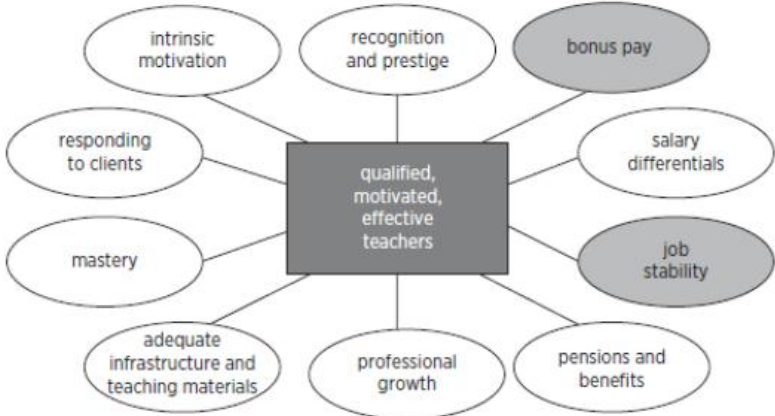
**189. Malaysia's planned reforms in education change very little in terms of sanctioning low performance among teachers.** Given the young age profile of teachers in the system, low-ability and low-skilled teachers currently in the system will stay in the system for decades. Under the Blueprint reform plans, teachers will undergo enhanced professional development described above in the first Wave of reform (2013-2015). An exit strategy for low-performing teachers is mentioned only under Wave 2 of reform (2016 – 2020), where the Blueprint states that the MoE will propose an exit policy or redeployment for teachers who perform poorly for three consecutive years despite the provision of intensive support. Under this policy, the Ministry will redeploy teachers to other functions within the school such as administration, discipline management, or co-curricular management. Similarly, teachers who do not meet the minimum proficiency standard in the English language after undergoing the planned training will be given up to two years to make necessary improvements. The MoE estimates that as the average non-proficient teacher only requires training over two years to meet the proficiency standard, it is anticipated that most who adhere to the training regime will be able to pass the evaluation by 2015. Those who still do not meet the proficiency standard will be tasked to teach other subjects or redeployed. This suggests a worryingly long duration of professional development - and a large financial investment - for each low-performing teacher, with little or no guarantee of success in terms of improvement in student learning. Given the high combined cost of personal emoluments and in-service professional training, one option that MoE may consider would be to reduce the "grace period" teachers are allowed for improving performance before they are redeployed.

**190. The MoE could consider introducing performance as a more formal criterion for teacher remuneration.** Teacher reforms in many parts of the world have aimed at creating a connection between performance and remuneration. In Chile, the Ministry of Education introduced a productivity bonus called the "National Subsidized School Performance Evaluation System" in 1996. The aim of the program was to improve academic performance via the bonus, which was given to teachers working in institutions that showed the best test score results over the course of two years. To ensure that test score results were compared between similar schools (i.e., schools with students from similar socioeconomic groups), "homogenous school groups" were created and the competition between teachers and schools were created within these groups. The scheme in Chile is thought to have been associated with generating better learning outcomes (Contreras, Flores, and Lobato 2003).

**191. In the lowest-performing schools, the MoE might want to consider experimenting with teacher contracts without guaranteed tenure, or pay-for-performance programs.** As Vegas (2005) and others have pointed out, individuals are

attracted into the teaching profession and gain satisfaction from their work for a wide range of reasons. All of these factors, shown in Figure 126, constitute part of the incentives for teaching. In contrast to most of the other incentives for teachers, both contracts without guaranteed tenure and pay-for-performance programs establish direct links between teachers' performance and their rewards or sanctions (Box 15). Both contract tenure reforms and pay-for-performance reforms have the advantage of overcoming the rigidity of existing teacher policies without requiring wholesale reform. Teachers could be hired under alternative contracting, for example fixed-term one-year contracts without the job stability that regular teachers enjoy in the Malaysian civil service, and would work alongside the existing teacher stream. A pay-for-performance program would on the other hand leave core salary policies intact but could create an incentive at the margin with the offer of an annual bonus based on some measure of teacher performance—be it an input measure, such as teacher attendance; an outcome measure, such as school or student results; or a combination.

**Figure 126. Teacher performance incentives**



Source: Bruns et al, 2011

**192. Performance-based contracting would naturally allow teacher attrition to occur, allowing the MoE to focus on quality improvements among fewer, more capable teachers.** As discussed above, there is growing evidence that, for reasons not fully understood, some people, regardless of training, interest and good intentions, are simply not effective teachers. Research suggests that rapid assessment, coupled with the termination of new teachers early in their careers may be the most cost-effective strategy for increasing student learning (Yen & Ritter, 2009; Bressoux, Kramarz & Proust, 2009, and McKee, Rivkin & Sims, 2010). Another study postulated that eliminating the least effective five to eight percent of teachers and replacing them with average teachers "could move the U.S. near the top of international math and science rankings with a present value [of future student earnings] of \$100 trillion" (Hanushek, 2010). In the United States, it is estimated that half of all teachers entering the profession, leave within five years (Shwarz, 2011). One commonly made claim is that attrition should be avoided as teachers become more effective with confidence gained over time. There is research that confirms that teacher effectiveness does increase during the first three years of teaching, but no evidence that the trend continues after that. If Malaysia were to introduce performance-based contracting for teachers, with contract terms that allow lower-quality teachers to exit the system in a timely manner, the education system would be left with fewer but higher-ability teachers. The MoE could then concentrate quality improvement efforts on a smaller number of teachers.

**Box 15. Incentives for teacher performance: Why focus on bonus pay and job stability?**

In contrast to most of the other incentives for teachers, both contracts without guaranteed tenure and pay-for-performance programs establish direct links between teachers' performance and their rewards or sanctions. Thus, contract tenure and pay-for-performance reforms are potentially two of the strongest instruments at the disposal of education policy makers to increase teachers' accountability for results. Compared to policy instruments that target any of the other incentives shown in Figure 126, these reforms are also of special policy interest for several other reasons:

- *Bonus pay and job stability are important determinants of performance.* While there is evidence that intrinsic motivation plays a stronger role in the teaching profession than in many other occupations, there is also evidence that compensation and contract status are key determinants of who goes into teaching, how long they remain, and how they perform (Chapman, Snyder, and Burchfield 1993; Guarino, Santibañez, and Daley 2006; Rivkin, Hanushek, and Kain 2005; Murnane and others 1991).
- *Expenditure related to these constitute a large share of spending on education.* Teacher contracting and pay policies are important drivers of the overall teacher wage bill, which is by far the largest component of education spending. As such, these policies have ripple effects on the resources available for all other education investments. In most developing countries, the teacher wage bill is also a large enough share of public spending to have implications for overall fiscal policy.
- *They present major challenges for policy makers in most countries.* Historically rigid policies tying teacher recruitment, tenure, and compensation to formal certification processes and seniority typically leave education officials with limited room to maneuver to either “de-select” teachers who are not effective or reward high performers. While there may be a long-term need in many countries to adjust the base wage and salary scale for teachers relative to other categories of public or private sector employment, policy makers struggle with the recognition that the impact of across-the-board increases is fiscally prohibitive and may still fail to create stronger incentives for performance.

### Contract teachers

International evidence suggests that the use of contract teachers can strengthen the scope for local monitoring of teacher performance, resulting in higher teacher effort and hence improved learning. The most rigorous of the seven available evaluations of contract teacher have all found them to be more cost-effective than regular civil service teacher (Bruns et al, 2011). In both Kenya and India, randomized trials have found learning outcomes for students of contract teachers to be equal to or better than those of civil service teachers, despite contract teachers' much lower salaries. Non-experimental studies in two additional states in India found similar results. Earlier evidence on community-hired teachers in Central America (summarized in Vegas 2005) was less robust but also suggested that contract teachers achieve similar or better student grade progression and learning outcomes (controlling for student background) at lower cost. Although contract teachers usually work for lower salaries than their civil service counterparts, the cost-effectiveness of a contract teacher policy is likely to depend on country characteristics and the level of education involved. All of the evaluated cases involved contract teachers at the primary level, for example, where the supply of potential teachers with adequate skills is not as likely to be constrained as at the secondary level, or for specialty subjects such as sciences and math. Second, there are nagging questions about the sustainability of this policy over time. Many of the evaluated cases suggest that contract teachers may accept the lower salaries and insecure tenure because they are queuing for civil service positions.

### Teacher bonus incentives

In the right setting, and with the appropriate program parameters, teacher bonus incentives can improve student outcomes. Teacher bonus initiatives in developing countries have proliferated over the past several years, both as small-scale experiments and as high-profile, system-wide reforms. In contrast to the situation just five years ago, and in contrast to recent U.S. evidence, a growing body of developing-country studies suggests that bonus pay incentives can work—at least in settings characterized by weak systems for performance monitoring and accountability, evidenced by relatively high teacher absence rates, low teacher dismissal rates, and low student learning performance.

- Relatively weak teacher professionalism—evidenced in most cases by low standards for entry
- Relatively large bonus size—for example, an annual bonus of 30–300 percent of monthly salary
- Focused performance metrics—emphasis on a small number of key, measurable results, notably student learning improvements or relatively easily measured teacher “inputs” such as monthly attendance, rather than more complex, subjective, and comprehensive performance evaluations
- “Fair” performance metrics—rewards to schools on a value-added basis (for progress relative to their starting point) or compared with schools with similar geographic and student socioeconomic conditions, not for absolute levels of performance
- Rewards clearly linked to prior period results—annual bonuses directly linked to test or other results for the

previous school year or monthly bonuses for input measures monitored over the previous month, such as teacher attendance.

Teacher bonus incentives “work” in the sense that student learning outcomes improve in the presence of the bonus. Across the eight most carefully evaluated cases, the bonus program raised average learning outcomes in incentive schools relative to control schools by about a 0.15 standard deviation; in the highest case, learning outcomes by the second year of the program were a 0.27 standard deviation higher. Although not huge, effects on this order of magnitude are relatively rare across other types of education interventions, and the consistency of positive impacts, across a wide variety of country contexts, is noteworthy.

Source: Bruns, Filmer & Patrinos, 2011

**193. The MoE may also consider non-financial incentives to motivate good performance.** Incentives to reward teachers who perform well on evaluations need not be limited to pay increases alone. They can also be linked to further opportunities for professional development and advanced training that can, in turn, be linked to career advancement. Whatever the design, clear rewards for incremental improvements in actual teaching skills and enhanced student performance, instead of automatic promotion according to the logic of civil service, would help ensure that salary increases go to the most motivated and competent teachers.

**194. Teach for Malaysia is another promising innovation, and careful impact evaluation is likely to offer important lessons in the Malaysian context.** Based on the successful Teach for All programs such as Teach for America in the United States of America, Teach First in the United Kingdom, and Teach for India in India, the Teach for Malaysia (TFM) program is aimed at attracting high-performing young graduates into the teaching profession. The Teach for All programs target students who have very strong academic credentials, leadership and management skills and an aptitude for teaching. Established in late 2010 with the support of numerous corporate sponsors, the TFM program works with the Ministry to place TFM fellows in high-need schools in two-year placements. TFM fellows are provided coaching and support during their placements, while simultaneously working towards a professional qualification in teaching. The pioneer group, comprising of 50 fellows, were placed in 17 schools in Kuala Lumpur, Selangor, and Negeri Sembilan. Given the shortage of qualified teachers in Malaysia, and the difficulty experienced in attracting high-quality candidates to teacher training programs in the country, a program like TFM holds great potential in terms of bringing good teachers into the system. It would be helpful to assess and evaluate TFM interventions to quantify impact on student learning in Malaysia, as this could provide valuable information on the extent to which teacher quality is constraining learning outcomes in the country.

**Table 15: Summary of measures to create a high-ability, high-performance teaching force**

What measures are proposed in the Blueprint to undertake these reforms?		Does the Blueprint go far enough in its reform proposals?	Recommendations for the MoE
Transforming teaching into a profession of choice	Raise the profile of the teaching profession through a targeted marketing and recruiting campaign	Proposed measures are in line with international evidence on what works.	In addition to the proposed measures, consider provision of scholarships and financial aid for high-performing secondary school students as a means to attract more able candidates to become teachers
	Institute more stringent requirements for entry into teacher training institutes		
Improving how teachers are prepared	Strengthen the pipeline of teacher trainee recruits, and will encourage applications from diverse academic and ethnic backgrounds	The proposed measures for improvements in pre-service training are in line international evidence on measures that work.	
	Enhance the IPG curriculum by increasing the time spent by teacher trainees on practicum training and hence increase the quantity and quality of practical experience prior to entering schools.		

What measures are proposed in the Blueprint to undertake these reforms?	Does the Blueprint go far enough in its reform proposals?	Recommendations for the MoE
	Review the IPG pre-service teacher training curriculum to ensure that teachers are being adequately prepared to teach higher-order thinking skills	
	Expand the School Improvement Specialist Coach (SISC+) teacher coaching program	
	Enhance professional development through in-service training, including training focusing on English language skills	Given the large body of evidence that teacher effectiveness is largely innate, evaluate the impact of proposed professional development measures on student learning before rolling them out at the national level
Improving performance in the classroom	Introduce a fast-track scheme that allows faster promotion of high-performing teachers, with progression speed dependent on how quickly a teacher masters expected competencies.	The proposed measures change very little in terms of sanctioning low performance among teachers. The proposed exit policies indicate a long duration of professional development - and a large financial investment - for each low-performing teacher, with little or no guarantee of success in terms of improvement in student learning.
	Introduce an exit policy or redeployment for teachers who perform poorly for three consecutive years despite the provision of intensive support. Teachers who do not meet the required skill level in English after undergoing training will be given up to two years to make necessary improvements.	
	Develop a single teacher evaluation instrument that clearly articulates the competencies expected at each tenure level in teaching and learning, professional values, non-classroom activities, and professional contributions	
		Ensure that the new instrument evaluation instrument allows measurement of the value teachers add to educational achievement of their students, and monitoring of teaching practices in addition to student test score results. The Vermont Classroom Observation Tool might be adapted for the Malaysian context. Also, consider using a simplified version of the new evaluation instrument during pre-service teacher training in addition to in-service training.  Teach for Malaysia is another promising innovation, and careful impact evaluation of its interventions is likely to be instructive.

Source: Authors

Note: This list is not meant to be a comprehensive one, and only reflects the Blueprint measures deemed to be most relevant or critical to reform, in the light of the preceding analysis.

## Conclusions

**195. There is an urgent need to transform Malaysia's education system so that it produces the quality graduates required by a high-income economy.** Malaysia's performance in international tests is sobering, and the government is to be commended for benchmarking the country and as such helping to create the consensus for change. The challenge now is to seize the momentum to implement structural changes.

**196. The Education Blueprint provides a candid overview of the challenges faced by the public education system in Malaysia, and proposes extensive, wide-ranging solutions in every facet of basic education in the country.** Yet, as this chapter shows, transformation requires addressing the deep-seated problems that constrain learning outcomes in the country, and focused reform efforts that target institutional barriers and provide the right incentives for performance at each level of governance within the education system – mostly importantly, at schools. It is critical to shift attention away from quantity of inputs to effective and efficient use of these inputs by adequately empowered local and school-level leadership accountable to parents and communities that generate bottom-up pressure for enhancements in education service delivery. Institution of the right teacher recruitment and performance management policies is equally important in order to draw Malaysia's most talented graduates into teaching.

**197. Implementation of these reforms is a long process, and not one without potential pitfalls, as the international evidence illustrates.** School-based management reforms can fail if their design does not institute the right incentives for school performance, or if accountability relationships are weak. Accountability reforms narrowly focused on test scores incentivize teachers to teach to the test, undermining development of critically needed non-cognitive skills. These risks notwithstanding, the experience of the world's high-performing education systems clearly underscores the need for a focus on governance reform in the Malaysian education system. Through appropriately designed policies, Malaysia can build on its tremendous success in expanding coverage of basic education, and transform its education system to one built on autonomous schools accountable for their ability to harness the full potential of high-quality teachers who creatively respond to diverse learning needs, and impart skills necessary for success in an increasingly globalized economy.



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