DEVELOPMENTS IN THE MALAYSIAN ECONOMY

Higher growth in the second quarter

The Malaysian economy recorded a higher growth of 5.4% in the second quarter of 2012 (1Q 12: 4.9%), driven by a stronger expansion in domestic demand amid a further moderation in external demand. Both private and public sector spending, particularly on capital investment, recorded robust growth during the quarter. Nevertheless, exports of goods and services moderated further, attributable mainly to weaker demand from the advanced economies. As imports recorded higher growth due to continued expansion in capital and consumption imports in line with the stronger domestic demand, net exports contracted in the second quarter. On the supply side, almost all economic sectors continued to expand. The agriculture sector, however, contracted during the quarter due to lower production of crude palm oil.

Robust growth in domestic demand

Domestic demand recorded a higher growth of 13.8% in the second quarter of 2012 (1Q 12: 9.7%), attributable to the strong performance in investment and consumption activity by both the private and public sectors.

GDP by Expenditure Components
(at constant 2005 prices)

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Aggregate Domestic Demand (excluding stocks)	5.4	6.8	9.7	13.8	11.8
Consumption	6.5	7.1	7.4	8.9	8.1
Private sector	*6.6*	*6.8*	*7.4*	*8.8*	*8.1*
Public sector	*6.0*	*8.4*	*7.3*	*9.4*	*8.4*
Gross Fixed Capital Formation	2.7	6.0	16.1	26.1	21.3
Private sector	*7.6*	*15.0*	*19.8*	*24.6*	*22.4*
Public sector	*-5.4*	*-6.9*	*10.3*	*28.9*	*19.5*
Net Exports	8.7	-13.3	-20.9	-36.2	-28.4
Exports of Goods and Services	*4.6*	*3.2*	*2.8*	*2.1*	*2.5*
Imports of Goods and Services	*4.0*	*6.5*	*6.8*	*8.1*	*7.5*
GDP	**4.3**	**4.7**	**4.9**	**5.4**	**5.1**

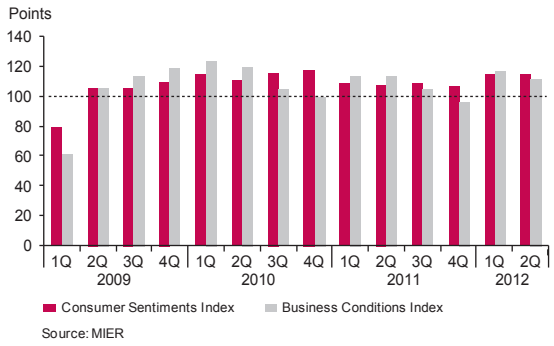
Source: Department of Statistics, Malaysia

Gross fixed capital formation registered a higher growth of 26.1% in the second quarter (1Q 12: 16.1%), supported by both private and public sector capital spending. Private investment strengthened to 24.6% (1Q 12: 19.8%), due to expansion in the domestic-oriented services sub-sectors such as real estate, telecommunication and utilities, continued implementation of upstream oil and gas projects and investment in domestic-oriented manufacturing clusters. Public investment expanded at a robust pace of 28.9% (1Q 12: 10.3%), driven by continued high capital spending by the non-financial public enterprises (NFPEs) in the transportation, oil and gas and utilities sectors and continued growth in Federal Government development expenditure. The bulk of the development expenditure was channeled into transportation, trade and industry, public utilities and education. The strong growth in total investment was also reflected in major investment indicators such as sales of commercial vehicles and imports of capital goods. In addition, business sentiments remained positive in the second quarter, as reflected by the MIER Business Conditions Index which was above the 100-point benchmark level (111.5 points; 1Q 12: 116.5 points).

Private consumption registered a strong growth of 8.8% in the second quarter (1Q 12: 7.4%). Household spending was supported by firm labour market conditions, robust income growth and improved consumer sentiments. Consumption also benefited from recent Government initiatives such as the increase in civil servant salaries, the one-off assistance to lower income households such as *Bantuan Rakyat 1 Malaysia* (BR1M) and the increase in pensions of retired civil servants. In addition, the first (of three) payout of RM5,000 to FELDA settlers in June provided further impetus to consumer spending in the rural areas. The MIER Consumer Sentiments Index rose slightly to 114.9 points (1Q 12: 114.3 points) during the quarter, reflecting improved consumer confidence.

Public consumption increased by 9.4% (1Q 12: 7.3%) due to higher spending on emoluments and supplies and services.

Consumer confidence improved while business sentiments remained optimistic



Source: MIER

Continued growth in most economic sectors

On the supply side, almost all economic sectors continued to expand further, with growth in the second quarter led by strong performance in the services, manufacturing and construction sectors. The services sector registered a better performance reflecting the strong support from domestic demand, while the manufacturing sector benefited from the resilience demonstrated by domestic-oriented industries and improvements in the growth of the primary-related and E&E clusters. The construction sector recorded a strong growth during the second quarter, supported mainly by the civil engineering sub-sector. In the mining sector, growth expanded at a faster pace, reflecting stronger growth in crude oil output, while the agriculture sector contracted due to lower production of crude palm oil.

The **services sector** expanded further by 6.3% in the second quarter of 2012 (1Q 12: 5.3%), supported by firm domestic demand. The **wholesale and retail trade** sub-sector continued to grow, albeit at a moderate pace of 5.9% (1Q 12: 6.4%), weighed down by the slower activity in wholesale of commodities. Nonetheless, growth in the retail segment remained firm, supported by continued household spending. The firm domestic demand also contributed to the robust growth in the **communication** sub-sector (9.5%; 1Q 12: 9.4%), which was supported by high usage of data communication services. In the **finance and insurance** sub-sector, growth increased to 6.6% (1Q 12: 2%), supported by higher fee income and insurance premiums. Growth in the **real estate and business services** sub-sector was higher (7.6%; 1Q 12: 6.9%), as robust investment continued to provide support to the growth of business services segments such as engineering and other professional services. In the **transport and storage** sub-sector, growth was sustained at 5.9% (1Q 12: 5.8%), as the continued growth in the land transportation segment remained supported by strong domestic production activity.

GDP by Economic Activity (at constant 2005 prices)

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Agriculture	7.7	3.8	2.1	-4.7	-1.5
Mining	-9.3	-6.6	0.3	2.3	1.3
Manufacturing	2.6	4.1	4.4	5.6	5.0
Construction	1.8	3.4	15.5	22.2	18.9
Services	7.1	7.1	5.3	6.3	5.8
Real GDP (Annual Change)	**4.3**	**4.7**	**4.9**	**5.4**	**5.1**
Real GDP (Preceding Change)	**2.5**	**-0.4**	**-3.0**	**3.0**	**-0.7**

Source: Department of Statistics, Malaysia

Performance of the Services Sector (value added at constant 2005 prices)

	Share 2011 (%)	2011		2012		
		2Q	1H	1Q	2Q	1H
		Annual change (%)				
Intermediate Services	**40.6**	**6.1**	**6.2**	**5.1**	**7.2**	**6.2**
Finance & insurance	17.0	5.7	6.7	2.0	6.6	4.3
Real estate & business services	10.0	7.1	6.4	6.9	7.6	7.3
Transport & storage	6.8	5.1	4.6	5.9	5.8	5.9
Communication	6.8	6.5	6.3	9.4	9.5	9.4
Final Services	**59.4**	**7.9**	**7.7**	**5.4**	**5.6**	**5.5**
Wholesale & retail trade	26.6	6.4	6.5	6.4	5.9	6.1
Accommodation & restaurant	4.5	6.4	5.6	6.1	6.8	6.5
Utilities	4.7	2.5	2.1	5.0	4.4	4.7
Government services	14.3	13.6	14.0	4.2	6.0	5.1
Other services	9.4	7.4	6.1	4.3	4.2	4.2
Total Services	**100.0**	**7.1**	**7.1**	**5.3**	**6.3**	**5.8**

Source: Department of Statistics, Malaysia

Selected Quarterly Indicators in the Services Sector

	2011				2012	
	1Q	2Q	3Q	4Q	1Q	2Q
	Index					
MIER Consumer Sentiments Index	108.2	107.9	108.7	106.3	114.3	114.9
MIER Retail Trade Index	99.1	120.8	150.0	92.6	85.3	119.4
MIER Tourism Market Index	113.1	125.4	115.2	126.0	125.2	117.3
	Annual change (%)					
Tourist arrivals	-3.7	-4.8	4.7	5.4	0.4	2.4[1]
Total passenger traffic at all airports	11.8	13.4	10.8	7.0	6.4	1.9
Total consumption credit outstanding	9.5	8.7	8.5	9.5	7.8	7.5
Loans outstanding to the wholesale & retail trade, hotels & restaurants	7.2	6.8	9.6	11.5	11.1	11.1
Imports of consumption goods	5.8	17.5	26.5	25.4	20.3	11.1
Total sales of motor vehicles	7.5	-9.7	0.6	-1.5	-12.6	17.2
Container cargo handled (Port Klang and PTP)	14.4	9.6	9.8	11.5	7.4	2.1[1]

[1] April-May 2012

Source: Various sources

Value added growth in the **manufacturing sector** increased to 5.6% in the second quarter (1Q 12: 4.4%), supported by higher growth in the export-oriented industries and a continued expansion of the domestic-oriented industries. Improvements in the performance of the **export-oriented industries** was driven mainly by higher output growth of the primary-related cluster, as firm regional demand supported the performance of major segments such as chemicals and chemical products, refined petroleum and wood. The E&E cluster also registered further expansions during the quarter, underpinned by the recovery in the global E&E supply chain. This is further supported by the continued strength in the demand for mobile devices, in particular, smartphones and tablets. On the domestic front, the performance of **domestic-oriented industries** was supported mainly by the resilience of the consumer-related cluster with the transport equipment and the food, beverage and tobacco segments registering sustained growth rates, in tandem with the firm growth in private consumption.

Overall, the capacity utilisation rate in the manufacturing sector increased in the second quarter (81%; 1Q 12: 79%). Export-oriented industries operated at 82% of total capacity while the capacity utilisation rate of domestic-oriented industries was 78% (1Q 12: 80% and 75% respectively).

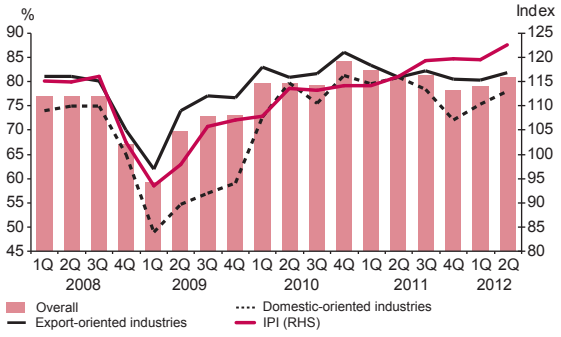
Performance of the Manufacturing Sector

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual Change (%)				
Value Added (RM million at constant 2005 prices)	**2.6**	**4.1**	**4.4**	**5.6**	**5.0**
Overall Manufacturing Production[1]	**2.1**	**4.0**	**4.6**	**5.7**	**5.2**
Export-oriented industries	**1.7**	**3.3**	**3.0**	**5.1**	**4.1**
Electronics and electrical products cluster	**-5.5**	**-5.4**	**0.0**	**2.8**	**1.5**
Of which:					
Electronics	-13.4	-15.8	-3.6	3.3	-0.1
Electrical products	6.8	12.0	4.6	2.2	3.4
Primary-related cluster	**6.0**	**8.6**	**4.5**	**6.4**	**5.4**
Of which:					
Chemicals and chemical products	6.2	5.8	9.1	10.4	9.7
Petroleum products	1.4	13.2	3.8	11.6	7.5
Rubber products	18.3	15.4	3.4	4.5	4.0
Off-estate processing	17.6	5.3	2.2	-15.5	-7.8
Domestic-oriented industries	**3.6**	**6.0**	**10.0**	**7.5**	**8.7**
Construction-related cluster	**17.4**	**19.6**	**8.3**	**4.4**	**6.3**
Of which:					
Construction-related products	15.4	15.4	0.9	2.0	1.5
Fabricated metal products	20.1	25.5	17.4	7.4	12.2
Consumer-related cluster	**-6.6**	**-3.7**	**11.4**	**10.4**	**10.9**
Of which:					
Transport equipment	-15.8	-10.4	9.9	12.1	11.0
Food, beverage & tobacco products	2.1	4.3	11.5	10.0	10.7

[1] Industrial Production Index (2005=100)

Source: Department of Statistics, Malaysia

Capacity utilisation rate in the manufacturing sector*



* Beginning 2012, the capacity utilisation rate in the manufacturing sector has been rebased from value-add in year 2006 to value-add in year 2009

Source: Bank Negara Malaysia & Department of Statistics, Malaysia

The **construction sector** recorded a strong growth of 22.2% in the second quarter (1Q 12: 15.5%), driven mainly by the civil engineering sub-sector. The pick-up in the **civil engineering** sub-sector was due to significant progress in infrastructure, utility and oil and gas projects such as the Second Penang Bridge, Seremban-Gemas Double Track, Janamanjung Power Plant, Sabah Oil and Gas Terminal and Melaka Regasification Terminal. The **residential** sub-sector continued to be underpinned by the construction of high-end residential properties while activity in the **non-residential** segment was supported by the construction of industrial buildings in the Samalaju Industrial Park in Sarawak.

Indicators for the Construction Sector

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Housing approvals	14.1	22.1	75.6	126.9	101.7
New housing sales and advertising permits	11.6	17.7	12.5	13.9	13.2
Production[1] of construction-related materials	17.4	19.6	8.3	4.4	6.3
Basic iron and steel	0.2	6.1	-10.9	1.0	-4.9
Structural non-refractory clay and ceramic products	-11.1	-8.9	3.3	9.1	6.1
Ready-mix concrete	41.0	36.7	18.2	23.7	21.1
Loans for construction activity					
Approval	31.9	30.8	38.2	-9.0	12.3
Disbursement	-3.6	3.7	16.0	17.9	16.9

[1] Industrial Production Index (2005=100)

Source: Ministry of Housing and Local Government, Department of Statistics, Malaysia and Bank Negara Malaysia

Value-added growth of the **agriculture sector** contracted by 4.7% (1Q 12: 2.1%), due mainly to lower production of crude palm oil. The **mining sector** expanded by 2.3% (1Q 12: 0.3%), reflecting stronger growth in crude oil output, following efforts to enhance recovery in production from the existing oil fields and the base effect of weak production in 2Q 11.

Performance of the Agriculture Sector

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Value Added (at constant 2005 prices)	**7.7**	**3.8**	**2.1**	**-4.7**	**-1.5**
Industrial Crops	**10.7**	**1.9**	**1.4**	**-12.3**	**-6.0**
Of which:					
Oil palm	19.4	6.5	3.5	-17.5	-8.6
Rubber	16.3	8.8	-9.4	-2.1	-6.1
Food Crops	**3.7**	**6.3**	**2.8**	**5.8**	**4.3**
Of which:					
Fishing	-3.9	1.5	-4.5	-0.2	-2.3
Livestock	9.4	9.6	11.0	7.7	9.2

Source: Department of Statistics, Malaysia

Performance of the Mining Sector

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Value Added (at constant 2005 prices)	**-9.3**	**-6.6**	**0.3**	**2.3**	**1.3**
Production					
Of which:					
Crude oil and condensates	-18.3	-13.2	0.1	5.7	2.7
Natural gas	2.1	0.7	-0.2	-4.4	-2.2

Source: PETRONAS
Department of Statistics, Malaysia

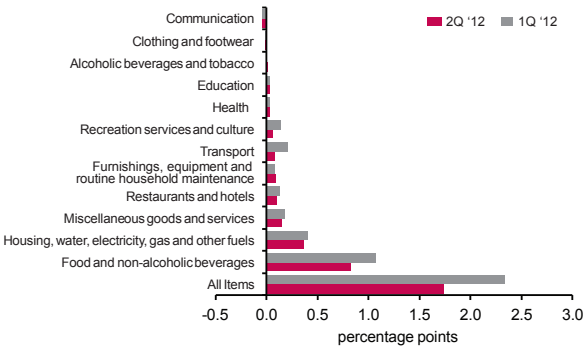
Inflation continued to moderate

The headline inflation rate, as measured by the annual change in the Consumer Price Index (CPI), moderated to 1.7% in the second quarter (1Q 12: 2.3%), reflecting lower inflation in the *food and non-alcoholic beverages* and *transport categories.*

Inflation in the *food and non-alcoholic beverages* category moderated to 2.7% during the quarter (1Q 12: 3.5%). Prices in the *meat* and *vegetables* sub-categories declined by 1.9% and 3.9% respectively (1Q 12: +1.1% and -3.7% respectively) due to the oversupply of these food items. Since May, however, the food supply has begun to normalise. The exceptionally high food prices in the second quarter of 2011 also contributed to the more moderate increase in food inflation.

Inflation in the *transport* category moderated to 0.5% (1Q 12: 1.4%) during the quarter as the impact from the adjustment to the price of RON97 petrol in April and May 2011 dissipated.

Contribution to Consumer Price Inflation



Source: Bank Negara Malaysia

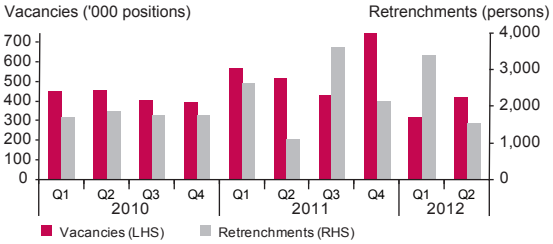
The Producer Price Index (PPI) increased at a slower rate of 0.8% on an annual basis in the second quarter (1Q 12: 3.8%). In terms of composition, prices of the commodity-related components and non-commodity-related components rose at a slower pace of 1.7% and 0.2% respectively (1Q 12: 9.2% and 0.8% respectively). In addition, prices of both local and imported components of the PPI increased at the same rate of 0.8%, which was lower than that recorded in the first quarter of 2012 (4.8% and 1.4% respectively).

Labour market conditions remained favourable during the quarter

Overall labour market conditions remained positive in the second quarter, as the unemployment rate was unchanged at 3.0% for the first two months of the quarter (1Q 12: 3.0%). Total employment in April and May averaged 12.5 million, representing a net job creation of 105,600 persons from the first quarter. Retrenchment declined by more than half to 1,516 persons from 3,388 persons in the preceding quarter.

Labour demand during the quarter remained strong, with a higher number of job vacancies posted in the JobsMalaysia Portal (419,636 positions; 1Q 12: 316,016 positions), reflecting higher job openings across all major sectors. Real wages in the manufacturing sector, however, recorded a lower growth of 5.2% as compared to the preceding quarter (1Q 12: 6.5%).

Labour Market Conditions



Note: : Beginning 2012, vacancies data reflected a technical review
Source: Ministry of Human Resources

External sector remained strong

Overall balance of payments turned around to record a surplus of RM12.7 billion in 2Q 2012 (1Q 2012: -RM7.2 billion), following a net inflow in the financial account amid a lower current account surplus.

The **current account** surplus narrowed in 2Q 2012 to RM9.6 billion, equivalent to 4.4% of GNI. The lower surplus was due to the lower goods surplus of RM29.4 billion (1Q 2012: RM35.8 billion) and higher deficit in the income account. Gross exports moderated to 3.9% (1Q 2012: 4.4%), due mainly to the lower growth in commodity exports. Meanwhile, gross imports expanded by 8.9% (1Q 2012: 6.9%) attributable to the strong growth in capital imports and a turnaround in imports of intermediate goods.

Balance of Payments

	2011		2012		
	2Q	1H	1Q	2Q	1H
	RM billion				
Current Account	**23.0**	**47.3**	**18.1**	**9.6**	**27.7**
(% of GNI)	*10.9*	*11.4*	*8.4*	*4.4*	*6.3*
Goods	36.0	73.5	35.8	29.4	65.3
Services	-1.0	-3.2	-3.8	-3.6	-7.4
Income	-6.7	-12.7	-8.6	-11.7	-20.3
Current transfers	-5.3	-10.4	-5.3	-4.6	-9.9
Financial Account	**51.5**	**45.0**	**-10.3**	**5.4**	**-4.8**
Direct investment abroad	-7.8	-19.0	-16.9	-2.5	-19.5
Foreign direct investment	9.8	21.0	7.5	6.1	13.6
Portfolio investment	48.0	56.5	25.3	-5.0	20.3
Financial derivatives	0.4	0.6	0.0	1.0	1.0
Other investment	1.2	-14.1	-26.1	5.9	-20.2
- Official sector	*-0.2*	*-0.7*	*-0.5*	*-0.3*	*-0.7*
- Private sector	*1.3*	*-13.4*	*-25.6*	*6.1*	*-19.5*
Errors & omissions	-12.7	-14.6	-14.9	-2.2	-17.1
Overall Balance	**61.7**	**77.6**	**-7.2**	**12.7**	**5.5**

Source: Department of Statistics Malaysia

In the second quarter, gross **exports** moderated as the lower growth in exports of commodities offset the improvement in manufactured exports. Exports of commodities grew at a more moderate pace due mainly to the lower prices and demand for agricultural commodities. Exports of minerals were sustained by firm regional demand amidst higher prices of natural gas. The increase in manufactured exports mainly reflected higher exports of non-E&E products, while exports of E&E remained weak. Exports of non-E&E rose mainly on account of higher regional demand for manufactures of metal and machinery, appliances and parts. Exports of E&E continued to register a contraction amidst sluggish demand from the advanced economies.

The expansion in gross **imports** was driven mainly by the strong growth in capital imports and the turnaround in intermediate imports. Imports of capital goods continued to expand following higher imports of aircrafts and machineries, in line with robust domestic demand conditions. Intermediate imports turned around to register a marginal growth of 0.1% (1Q 2012: -1.3%), in tandem with the improvement in manufactured exports. However, growth in imports of consumption goods moderated but remained strong, due mainly to lower imports of processed food and beverage.

Deficit in the **services account** was lower at RM3.6 billion. Higher receipts from the provision of other services, particularly the computer and information services and professional and technical services, more than offset the larger payments for imported services. The deficit in the **income account** widened to RM11.7 billion due mainly to higher investment income accrued to non-resident controlled companies investing in Malaysia and lower investment income accrued to Malaysian companies investing abroad. During the quarter, higher profits were declared and dividends were paid mainly by the non-resident controlled companies investing in the financial, oil and gas and manufacturing sectors.

The **financial account** turned around to record a net inflow RM5.4 billion in 2Q 12 (1Q 12: -RM10.3 billion) due to net inflows in FDI and other investment, which offset a small net outflow of portfolio funds.

Trade Account

	2011		2012		
	2Q	1H	1Q	2Q	1H
	Annual change (%)				
Gross Exports	**8.8**	**6.8**	**4.4**	**3.9**	**4.2**
Manufactured	1.6	0.5	0.9	2.9	1.9
E&E	*-5.0*	*-6.2*	*-1.7*	*-1.2*	*-1.4*
Non-E&E	*9.4*	*8.5*	*3.4*	*7.2*	*5.4*
Commodities	28.9	24.1	11.7	5.6	8.6
Agriculture	*43.3*	*34.7*	*-8.0*	*-12.3*	*-10.2*
Minerals	*19.3*	*17.0*	*26.0*	*20.0*	*23.0*
Gross Imports	**7.4**	**9.8**	**6.9**	**8.9**	**8.0**
Capital goods	10.2	13.2	21.0	27.3	24.3
Intermediate goods	3.8	7.9	-1.3	0.1	-0.6
Consumption goods	17.5	11.8	20.3	11.1	15.3
Trade balance (RM billion)	**27.4**	**59.1**	**29.8**	**21.3**	**51.1**

Source: MATRADE and Department of Statistics, Malaysia

Malaysia: Direction of Exports

	2011		2012			2011		2012		
	1Q	4Q	1Q	2Q	1H	2Q	1H	1Q	2Q	1H
	Annual change (%)					Share of total exports (%)				
United States	**-7.1**	**-7.5**	**5.5**	**4.4**	**4.9**	**8.5**	**8.4**	**8.3**	**8.6**	**8.5**
European Union (EU)	**3.4**	**4.4**	**-10.4**	**-8.7**	**-9.6**	**10.2**	**10.4**	**9.1**	**9.0**	**9.1**
Selected ASEAN countries[1]	**6.3**	**3.1**	**9.3**	**10.6**	**10.0**	**24.6**	**24.6**	**25.8**	**26.2**	**26.0**
North East Asia	**9.0**	**5.7**	**-2.0**	**2.2**	**0.1**	**24.5**	**24.5**	**22.9**	**24.1**	**23.5**
People's Republic of China	*9.7*	*6.7*	*-3.2*	*10.2*	*3.5*	*12.5*	*12.7*	*11.9*	*13.2*	*12.6*
Hong Kong SAR	*-4.6*	*-2.4*	*-8.1*	*-3.1*	*-5.5*	*4.7*	*4.6*	*4.0*	*4.4*	*4.2*
Chinese Taipei	*14.7*	*15.8*	*-2.0*	*-2.6*	*-2.3*	*3.3*	*3.2*	*3.0*	*3.1*	*3.0*
Korea	*22.1*	*5.3*	*9.4*	*-13.0*	*-2.2*	*4.0*	*3.9*	*4.0*	*3.4*	*3.7*
West Asia	**13.1**	**15.2**	**-4.8**	**-0.9**	**-2.8**	**3.7**	**3.7**	**3.4**	**3.6**	**3.5**
India	**45.6**	**34.4**	**-5.1**	**7.2**	**1.3**	**4.1**	**4.0**	**3.6**	**4.2**	**3.9**
Total exports	**8.8**	**6.8**	**4.4**	**3.9**	**4.2**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

[1]Singapore, Thailand, Indonesia, Philippines, Brunei Darussalam and Vietnam

Source: Department of Statistics, Malaysia

Portfolio investment turned around from a net inflow position to record a small net outflow of RM5 billion during the quarter (1Q 12: +RM25.3 billion). The outflows reflected the continued portfolio investments abroad by residents, and liquidation of debt securities by non-residents, the latter mainly due to heightened risk aversion in the financial markets amidst the escalation of the debt crisis in Europe. These outflows offset the net purchases of equity securities by non-residents. These developments were also experienced in several other countries within the region.

FDI inflows were sustained at RM6.1 billion (1Q 12: +RM7.5 billion), supported by continued inflows of equity capital and higher extensions of inter-company loans to MNCs operating in Malaysia. FDI inflows continued to be broad-based during the quarter, the bulk of which were undertaken by companies in the *oil and gas* and *services* sectors, led by the *finance and insurance* and *professional and technical activities* sub-sectors. The *manufacturing* sector was also a recipient of sizeable investments during the quarter, particularly the *E&E* and *petrochemical* sub-sectors.

Direct investment abroad (DIA) by Malaysian companies moderated to RM2.5 billion in the second quarter (1Q 12: -RM16.9 billion). The smaller net DIA outflow reflected lower outflows of equity capital and intercompany loans, and net repatriated earnings by Malaysian companies operating abroad. DIA were mainly channelled into the *oil and gas* and *services* sectors, particularly the *finance and insurance* and *real estate* sub-sectors. There were also sizeable investments abroad by Malaysian companies in the *construction* sector.

Other investment reversed to register a net inflow of RM5.9 billion in the second quarter (1Q 2012: -RM26.1 billion). This largely reflected sizeable inflows of non-resident deposits and the winding down of assets abroad by the banking sector. These inflows were partially offset by higher net extensions of trade credits.

The official sector registered a small net outflow, due to continued repayment of external loans.

The errors and omissions amounted to -RM2.2 billion in 2Q 2012, partly reflecting the foreign exchange revaluation gains on external reserves during the quarter, following the appreciation of major currencies against the ringgit.

External debt remained manageable

Malaysia's **total external debt** amounted to RM269.5 billion at end-June 2012 (end-March: RM249.5 billion). This is equivalent to 30% of GNI, and remains small as a share to total debt[2] (12.8%).

Medium- and long-term external debt increased to RM159.3 billion (end-March: RM148.3 billion), reflecting net drawdown of external borrowings by the private sector and the strengthening of major and regional currencies against ringgit during the quarter. The latter also resulted in higher public sector external debt despite a net repayment of external borrowings, mainly by the NFPEs. As at end-June 2012, the **short-term external debt** was higher at RM110.2 billion due mainly to higher interbank borrowing.

External Debt Outstanding

	2011	2012	
	end-June	end-Mar	end-June[p]
	RM billion		
Medium- and long-term debt	149.2	148.3	159.3
Public sector	80.0	84.2	87.3
Private sector	69.2	64.1	72.0
Short-term debt[1]	92.3	101.2	110.2
Total external debt	**241.5**	**249.5**	**269.5**
USD billion equivalent	79.1	80.5	83.5
External debt/GNI (%)	28.1	27.8	30.0
Reserves/Short-term external debt (times)	4.4	4.1	3.9[2]

[1] Excludes currency and deposits held by non-residents with resident banking institutions
[2] Based on international reserves as at 31 July 2012
[p] Preliminary

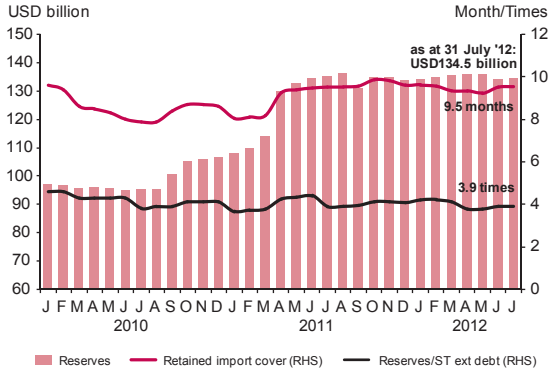
Source: Ministry of Finance, Malaysia and Bank Negara Malaysia

[1] Total debt comprises domestic and external debt. Domestic debt comprises loans by banking system, private debt securities and federal government debt.

Higher international reserves

The international reserves of Bank Negara Malaysia increased to RM428.8 billion (equivalent to USD134.2 billion) as at 29 June 2012. This reserves level has taken into account the quarterly adjustment for foreign exchange revaluation gains, following the strengthening major and regional currencies against ringgit during the quarter. As at 31 July 2012, the reserves position amounted to RM429.6 billion (equivalent to USD134.5 billion), sufficient to finance 9.5 months of retained imports and is 3.9 times the short-term external debt.

Net International Reserves (as at end period)



Source: Bank Negara Malaysia

Higher Government revenue remained supportive of expenditure

Federal Government revenue increased to RM50.7 billion in the second quarter (1Q 12: RM47.9 billion). This was mainly on account of higher income tax collections. The higher revenue supported the increase in operating expenditure, which was channeled mainly to emolument and subsidy payments. Development expenditure increased to RM10.3 billion (1Q 12: RM8.5 billion), which was mainly disbursed to various economic sectors. As a result, the Federal Government recorded a fiscal deficit of 3.4% of GDP during the quarter (1Q 12: -2.6% of GDP). The deficit continued to be financed from domestic borrowings. As at end-June 2012, total outstanding debt of the Federal Government amounted to RM476.7 billion or 51.9% of the estimated 2012 GDP.

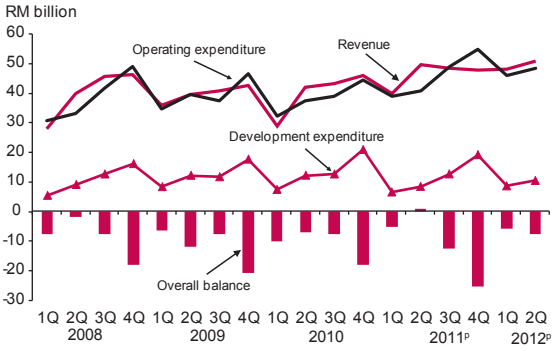
Federal Government Finance[p]

	2011		2012		
	2Q	1H	1Q	2Q	1H
	RM billion				
Revenue	49.6	89.4	47.9	50.7	98.6
% growth	*18.3*	*26.4*	*20.4*	*2.2*	*10.3*
Operating expenditure	40.6	79.2	45.6	48.2	93.8
% growth	*9.5*	*14.9*	*18.0*	*18.8*	*18.4*
Current account	**9.1**	**10.2**	**2.3**	**2.5**	**4.8**
% of GDP	***4.2***	***2.4***	***1.0***	***1.1***	***1.1***
Gross development expenditure	8.3	14.8	8.5	10.3	18.8
% growth	*-31.3*	*-24.0*	*32.3*	*24.0*	*27.6*
Overall balance	**0.8**	**-4.4**	**-5.8**	**-7.8**	**-13.6**
% of GDP	***0.4***	***-1.0***	***-2.6***	***-3.4***	***-3.0***
Memo item:					
Total gross expenditure	48.9	94.0	54.1	58.6	112.7
% growth	*-0.5*	*6.4*	*20.0*	*19.7*	*19.9*
Total Federal Government debt (as at end-period)	437.2	437.2	470.8	476.7	476.7
% of GDP	*49.6*	*49.6*	*51.3*	*51.9*	*51.9*
Domestic debt	421.0	421.0	453.9	458.8	458.8
% of GDP	*47.8*	*47.8*	*49.4*	*50.0*	*50.0*
External debt	16.2	16.2	16.9	17.9	17.9
% of GDP	*1.8*	*1.8*	*1.8*	*1.9*	*1.9*

[p] Preliminary

Source: Ministry of Finance

Federal Government Finance



[p] Preliminary

Source: Ministry of Finance

Potential Output and the Output Gap in Malaysia

1. INTRODUCTION

"The principal objects of the (Central) Bank shall be to promote monetary stability and financial stability conducive to the sustainable growth of the Malaysian economy."

Central Bank of Malaysia Act 2009

The economy can be broadly regarded as operating on a sustainable growth path when it is growing at its full capacity with prices remaining low and stable. This level of output is known as the potential output and it is one of the important factors that central banks consider in formulating monetary policy to achieve their mandates.

There are at least two reasons to be concerned about potential output. First, in the short-run, the output gap - the difference between the actual and potential output - reflects the economy's position in the business cycle and, correspondingly, the possible presence of inflationary pressures arising from the level of utilisation of factors of production and possible capacity constraints. As monetary policy operates with lags, it is necessary to estimate the future path of potential output to access whether the current monetary policy stance is consistent with the desired inflation trajectory. Second, potential output reflects the maximum level of output that an economy is able to sustainably produce over a longer time horizon. Faster growth in potential output would allow for a faster growth in actual output without generating undue price pressures. Knowledge of the determinants of potential output can therefore help in formulating structural policies that are focused on increasing the economy's growth rate in a sustainable manner by improving its growth potential. For instance, selected government initiatives in the New Economic Model (NEM) and Economic Transformation Programme (ETP) strive to achieve this by stimulating private investment in technology-intensive capital and by increasing the talent pool of the labour force.

Despite being a reasonably intuitive and useful concept, potential output is unobservable and needs to be estimated. It cannot be easily embedded into policy functions with certainty as its estimates are known to vary with different estimation approaches. In balancing between the uncertainty surrounding the estimates of the potential output and its inherent usefulness, policymakers in general consider potential output as just one of a wider range of indicators to assess the state of the economy.

The purpose of this note is to outline one of the methodologies that Bank Negara Malaysia uses to estimate the potential output of the Malaysian economy. The production function approach is adopted to estimate potential output and its determinants. In doing so, the linkages between inflation, labour market conditions and the output gap are also established.

The remaining sections of this note are organised as follows. Section II details the methodology for estimating potential output. Section III presents the results. The final section concludes this note.

2. METHODOLOGY

Potential output and the output gap provide crucial information about the state of the economy. When output is above its potential level (positive output gap), the economy is experiencing high resource utilisation. During these periods, labour markets tend to be tighter and wage pressures higher, which can lead to higher inflation. Conversely, the economy is operating with surplus capacity when actual output is below its potential level (negative output gap). This in turn is associated with higher unemployment, lower wage pressures and lower inflation. A reliable estimate of potential output can therefore aid the Central Bank in implementing monetary policy to smooth business cycle fluctuations and manage inflationary pressures.

Broadly speaking, there are two conceptual approaches to estimate potential output, each possessing its own advantages and disadvantages. The first is based on the univariate statistical approach, which involves making a judgement on the components of output that are permanent and transitory. The permanent component is considered to be a measure of potential output, while the transitory component reflects the cyclical and idiosyncratic fluctuations in output. Some examples of such statistical methods are the Hodrick-Prescott (HP) filter, Baxter-King filter and univariate Kalman filter. These methods are appealing because of their low data requirements and ease of application. However, a pitfall is that these methods are atheoretical data-driven techniques and thus provide no guidance to policymakers on the determinants of potential output and its association with inflation.

The second approach relies on multivariate specifications suggested by economic theory such as the Phillips curve, Okun's Law and other more complex representations of the economy. The models are estimated or calibrated using a wide range of techniques, including the production function approach (Hong Kong Monetary Authority, 2001 & 2011 and Congressional Budget Office, 2001), Structural Vector Autoregression (SVAR) models (Arora and Bhundia 2003), multivariate Kalman filters (Benes, Clinton, Garcia-Saltos, Johnson, Laxton, Manchev and Matheson, 2010) and more recently, dynamic stochastic general equilibrium (DSGE) models (Edge, Kiley and Laforte, 2007 and Coenen, Smets and Vetlov, 2009). The appeal of this approach is its economic content. However, the complexities involved in estimating some of these models often result in potential output estimates that are highly sensitive to the underlying assumptions imposed by the researchers[1].

2.1 The Production Function Approach

One of the methods used by Bank Negara Malaysia to estimate potential output and the output gap is the production function, or growth accounting, approach. The biggest advantage of this method is that it relates potential output to the factor inputs of the economy – capital, labour and the level of technological progress. Structural changes that affect any of the three determinants are therefore captured in the computation of potential output. The methodology's robustness to structural change relative to other methods and the ability to provide insight to the determinants of potential output has led to its widespread use by other central banks, government agencies and academics.

[1] A discussion of the various methods and their advantages/disadvantages is beyond the scope of this paper. Refer to Cotis, Elmeskov and Mourougane (2003) for a thorough presentation of the relevant issues and methods and Mishkin (2007) for a non-technical discussion of the issues in estimating potential output.

In keeping with the literature, the production function is assumed to take the following Cobb-Douglas functional form:

$$Y_t = A_t \; L_t^{\alpha} \; K_t^{1-\alpha} \qquad (1)$$

Y_t is seasonally adjusted output, A_t is Total Factor Productivity (TFP), L_t is employment and K_t is capital stock[2]. The production function is assumed to be constant returns to scale, with α and (1-α) being the respective labour and capital shares. We use the income account[3] method to derive the factor shares. This results in α currently being set to 0.4[4], reflecting the current labour income share to GDP. This value is adjusted over time in accordance with the evolution of Malaysia's economic structure.

A is unobserved and is computed as the "Solow residual" by subtracting the contributions of capital and labour from actual output in the following log-linear transformation of the production function:

$$\ln A_t = \ln Y_t - \alpha \ln L_t - (1-\alpha) K_t \qquad (2)$$

Potential output is then computed by:

$$\overline{Y}_t = \overline{A}_t \; \overline{L}_t^{\alpha} \; K_t^{1-\alpha} \qquad (3)$$

With $\overline{Y}_t$ being potential output, $\overline{A}_t$ the trend level of TFP and $\overline{L}_t$ potential employment. The underlying trend of TFP is obtained by the Hodrick-Prescott filter. The output gap, Gap, is computed as:

$$\text{Gap}_t = \frac{Y_t - \overline{Y}_t}{\overline{Y}_t} \qquad (4)$$

2.2 Potential Employment and the Non-Accelerating Inflation Rate of Unemployment (NAIRU)

Potential employment, an input in (3), represents the level of employment that is consistent with a low and stable inflation rate. It is expressed as:

$$\overline{L}_t = L_t^f (1 - \text{NAIRU}_t) \qquad (5)$$

L_t^f is the labour force. The Non-Accelerating Inflation Rate of Unemployment (NAIRU) refers to the level of the unemployment rate where wage, and subsequently, inflationary pressures are absent in either direction. Upward wage pressures tend to be present when unemployment is below NAIRU (i.e. the unemployment gap is negative), and vice versa.

[2] Quarterly capital stock was derived from the annual capital stocks data published by the Department of Statistics Malaysia (DOSM).
[3] Income Account refers to the Distribution and Use of Income Accounts and Capital Account (2006-2008) which is published by the Department of Statistics Malaysia (DOSM).
[4] This value comprises of 2 components in the Income Account. Firstly, it consists of compensation to employees. Secondly, it consists of income earned by the self-employed or people employed in small and medium enterprises, in which the distinction between labour income and company profits is blurred. This aspect of income is accounted for by adding a classification in the Income Account that is known as "mixed income".

NAIRU is estimated in a two step procedure. In the first step, the unemployment rate is decomposed into a trend and a cyclical component[5]. The cyclical component is then used as a reference to estimate the unemployment gap in the subsequent step. In the second step, the Kalman filter is used to estimate the unemployment gap and hence NAIRU. The unemployment gap is modelled as an unobserved component within a Philips curve framework. This approach draws from Turner et al. (2001), Greenslade et al. (2003) and Epstein and Macchiarelli (2010). The details of the steps are as follows:

Step 1: Decomposition of unemployment into trend and cyclical components

The unemployment rate, U_t, is assumed to comprise of a trend, T_t, and a cyclical component, C_t:

$$U_t = T_t + C_t \qquad (6)$$

Step 2: Kalman filter estimation of the Philips curve

The unemployment gap, G_t, is modelled as an unobserved component and is estimated from a Philips curve relationship between inflation and its determinants. The Philips curve model is expressed by the following functional form:

$$\pi_t = \beta\pi_{t-1} + \gamma G_t + \delta Z_t + \epsilon_t \qquad (7)$$

π_t is the year-on-year percentage change in core inflation. This series excludes administered and volatile price items from the consumption basket, and is used to control for supply side influences and to have a series that reflects the underlying demand conditions in the economy. G_t is the unemployment gap, which is unobserved and assumed to follow an AR(1) process. Finally, Z_t is the year-on-year change in import price inflation and is included to control for supply-side and exchange rate influences. For increased precision in estimating equation (7), the coefficients are initialised with values from an OLS regression of a similar functional form, but with the unemployment gap (G_t) that was approximated by the cyclical component from Step 1. G_t is consequently treated as an unobserved component and estimated using the Kalman filter. Finally, NAIRU is computed as the difference between the unemployment rate and the estimated unemployment gap, G_t, and smoothed using the HP filter.

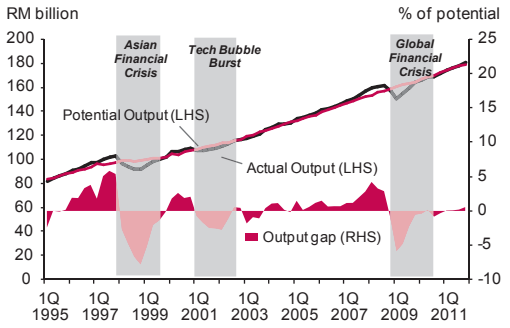
3. RESULTS

3.1 Potential Output and the Output Gap

The estimates of potential output and the output gap are illustrated in Figure 1. The output gap was broadly positive or close to zero for most of the period studied, i.e., 1995-2011. There are three episodes in which large negative output gaps were seen: The Asian Financial Crisis (AFC), the bursting of the technology bubble in the US (Tech Bust) and the recent financial crisis in the advanced economies. In all three cases, the gaps closed within 2 years with improving demand as the economy recovered (Figure 2). Not surprisingly, the output gap was negative for the longest period (8 quarters) and experienced its deepest trough of -8% of GDP in 4Q 1998 during the AFC, given that actual GDP contracted by 7.2% in 1998, the worst decline over the period studied. In contrast, Malaysia's experience during the Tech Bust and the recent crisis was less severe both in depth and duration as actual output recovered back to its potential level within 6 quarters.

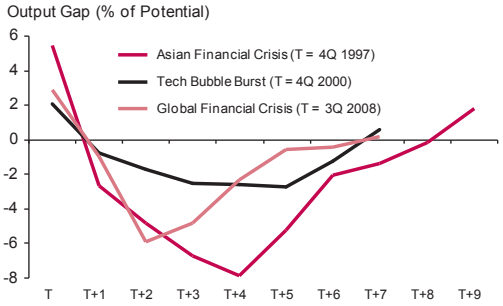
[5] The trend-cycle decomposition was done using the Hodrick-Prescott filter.

Figure 1: Actual and Potential GDP in Malaysia



Source: Authors' calculations and Department of Statistics Malaysia

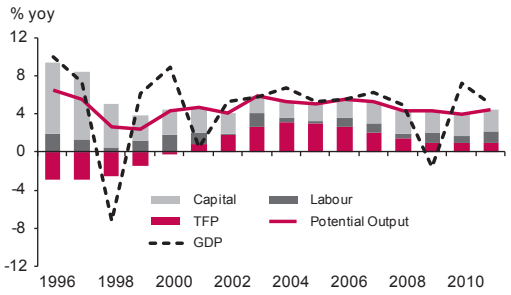
Figure 2: Narrowing of Output Gap during Three Episodes of Economic Slowdown



Source: Authors' calculations
Note: T denotes the quarter before the output gap turned negative

Figure 3 illustrates the growth in GDP, potential output and its respective contributions from capital, labour and total factor productivity (TFP). Growth in potential output normally moderates during economic downturns as investments decline and employment conditions weaken. In Malaysia's case, potential output only declined noticeably during the AFC but did not deviate much from its pre-crisis trend during the Tech Bust and the recent crisis. This is mainly attributable to the slower rate of capital accumulation as total investment declined by 42% in 1998 during the AFC, much larger compared to the investment rates of -1.8% in 2001 during the Tech Bust and -0.5% in 2009 during the recent crisis. Nonetheless, the output gap became negative in all three episodes as the contraction in domestic and external demand caused actual output to fall below the productive capacity of the economy.

Figure 3: Factors Contributing to Potential Output Growth



Source: Authors' calculations and Department of Statistics Malaysia

Table 1: Philips Curve Estimates using the Kalman Filter

Dependent variable is π_t	
Variable	**Kalman filter**
G_t	-0.9169
π_{t-1}	0.7299
Z_t	0.2258
G_{t-1}	0.5692

Note: All estimates are significant at the 1% level

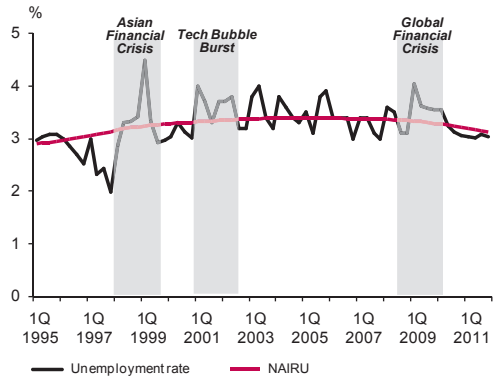
3.2 The Relationship between Inflation, Unemployment and the Output Gap

The estimates of equation 7 are shown in Table 1. The estimated coefficients all possess the expected signs and provide evidence of a statistically significant relationship between inflation and the unemployment gap. Specifically, a higher unemployment gap leads to lower inflation, while higher import prices[6] are passed-through to higher inflation.

[6] This can occur through depreciation in the exchange rate or a higher input cost of imported goods.

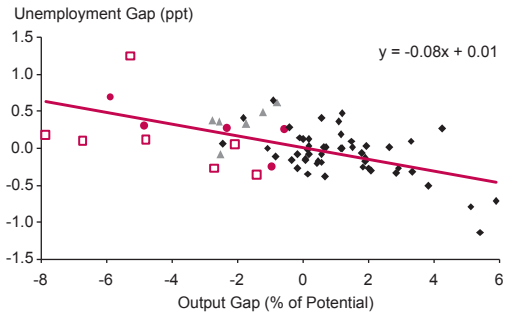
Figure 4 displays the unemployment rate together with NAIRU from 1Q 1995 to 4Q 2011. The figure shows that the unemployment rate was below NAIRU (negative unemployment gap) during the quarters just prior to the AFC, the Tech Bust and the recent crisis, coinciding with periods when the output gap was persistently positive. Figure 5 corroborates this observation, by illustrating evidence of a negative relationship between the unemployment gap and the output gap. A stronger labour market, reflected by a lower unemployment gap, corresponds to a higher output gap. Conversely, the unemployment gap was noticeably higher during the three aforementioned episodes when economic conditions were weak and output gap was negative.

Figure 4: Actual Unemployment and NAIRU



Source: Authors' calculations and Department of Statistics Malaysia

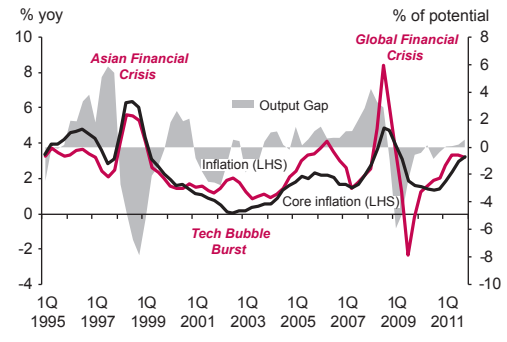
Figure 5: Output Gap and Unemployment Gap



Source: Authors' calculations and Department of Statistics Malaysia
Note: Observations from 1Q 1995 to 4Q 2011

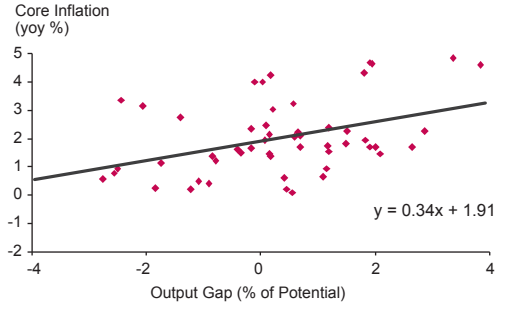
Although lower inflation is normally seen alongside negative output gaps, this was only witnessed during one of the three highlighted episodes – the Tech Bust. In fact, even with large negative output gaps, the economy experienced higher inflation during the AFC and the recent crisis (Figure 6). One explanation is the large depreciation in the exchange rate[7] during the AFC and the sharp increase in global commodity prices during the recent crisis. Figure 7 lends support to this hypothesis. It illustrates a positive relationship between core inflation and the output gap, implying that once we strip out the supply-side and exchange rate related shocks from the inflation time series, the relationship between the output gap and inflation is indeed positive.

Figure 6: Output Gap and Inflation



Source: Authors' calculations and Department of Statistics Malaysia

Figure 7: Output Gap and Core Inflation



Source: Authors' calculations and Department of Statistics Malaysia
Note: Observations from 1Q 1995 to 4Q 2011, excluding periods with supply shocks

[7] A depreciation in the exchange rate typically leads to higher import prices which can result in increased inflationary pressures.

4. CONCLUSION

This note outlines one of the methodologies that is used by the Central Bank to estimate potential output and the output gap for Malaysia. Using the production function approach, the estimations establish linkages between inflation, unemployment and the output gap that are in accordance with expectations – a higher output gap corresponds with higher inflation (excluding supply shocks) and lower unemployment, and vice versa.

The results show that the output gap was broadly positive or close to zero for most of the period studied (1995-2011) except for three episodes during which large negative output gaps are observed: The Asian Financial Crisis (AFC), the bursting of the technology bubble in the US (Tech Bust) and the recent financial crisis in the advanced economies. The negative output gap was the largest and longest during the AFC, followed by the recent crisis and the Tech Bust. This is not surprising as the economic downturn during the AFC was caused by a regional financial crisis. This disrupted financial intermediation and the supply of credit to firms and households during this period, causing a large decline in private sector spending. In contrast, the latter two episodes were temporary external demand shocks. While the country was adversely affected through lower exports during these episodes, financial stability was preserved and domestic demand remained comparatively resilient. Overall, the robustness and intuitiveness of the results support the inclusion of the output gap as one of the important indicators that the Central Bank monitors to assess the state of the economy.

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