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Publisher's Note

The *Economic Review* is published three times a year in June, September and December, by the Central Bank of Barbados. It is prepared by the Bank's Research Department and contains articles of research undertaken at the Bank. In addition, we welcome contributions of a non-technical and empirical nature on economic and policy issues in the Caribbean. Book reviews and surveys are also welcome. All submitted papers are reviewed by the Editorial Committee* and external referees.

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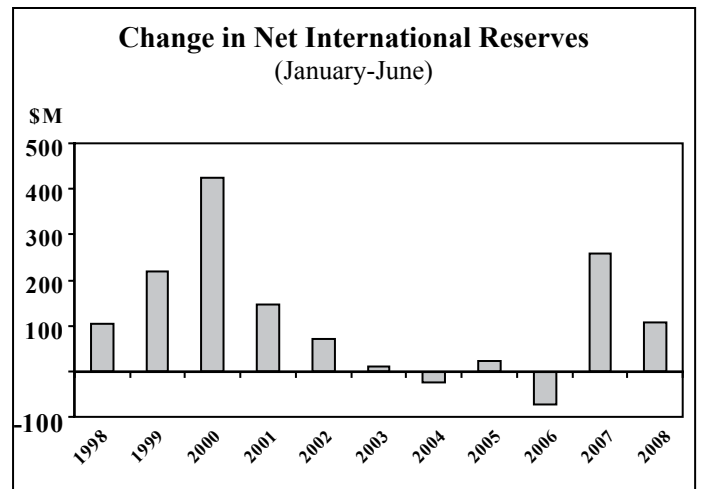
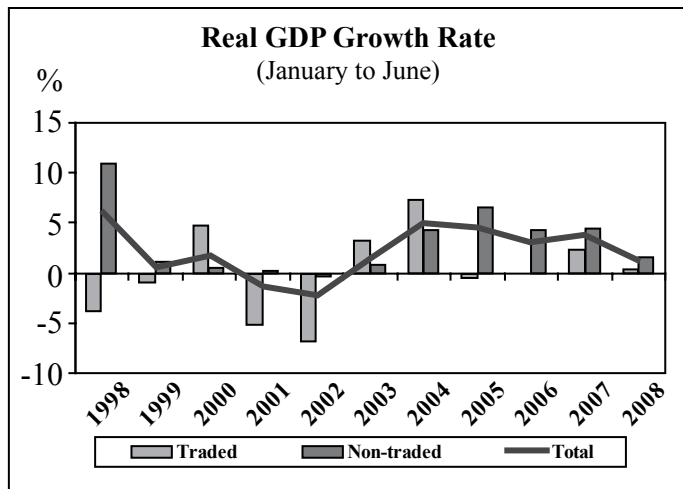
Review of Economy

Constrained by soaring international commodity prices and weak economic performances of its major trading partners, expansion of the Barbadian economy slowed to an estimated 1.3% during the first six months of 2008, well below the average first-half growth rate of 3.6% experienced during the preceding five years. For the fourth consecutive first half, growth was driven mainly by the non-traded sectors, led by continued — albeit reduced — gains in wholesale and retail trade, business services as well as transport storage and communications. Similarly, growth in traded sector activity slowed considerably, primarily on account of a weaker performance in the tourism industry. Higher costs for imported food and fuel put substantial pressure on the external current account, which filtered through to domestic prices, pushing inflation upward. Nonetheless, foreign reserve outflows associated with these higher import costs were offset by sizable first-quarter capital inflows, improved travel credits and a modest pick-up in revenue from domestic exports, leading to notable growth in the net international reserves (NIR). The banking system continued to be characterised by excess liquidity as higher deposit growth overshadowed a build-up in credit to the non-financial private sector. This rising liquidity allowed government to finance its rising deficit mainly from domestic sources.

For the first half of 2008, growth in real non-traded activity rose by 1.6% compared to the average first-half expansion rate of 4.1% recorded between 2003 and 2007. After driving much of the performance in the non-traded sectors during the preceding years in the lead-up to the hosting of Cricket World Cup (CWC), activity in the construction industry recorded a first-half contraction for the first time since 2000. Growth in the value added by wholesale and retail trade, transportation, storage and communications, business and other services as well as mining and quarrying slowed, but nevertheless offset the decrease in construction activity. .

Traded activity improved by a marginal 0.4%, well below the 2.5% growth averaged between 2003 and 2007. The deceleration in the traded sectors was primarily the result of reduced gains in tourism, coupled with declines in manufacturing output and sugar production. The slight gain in traded activity was supported by a 5.8% expansion in new registrations within the international business and financial services sector during the review period.

In line with the moderation in economic growth, unemployment was estimated to have risen marginally, though still remaining in single digits. Average retail price inflation at the end of June was also higher than the rate for the corresponding six-month period in 2007, reflecting mainly higher food costs and the impact of an increase in gas and diesel prices in April.



The deficit on the external current account widened by approximately \$91.8 million, as increased travel credits and a minor improvement in domestic exports were outweighed by a petroleum-led spike in the value of retained imports. Conversely, an increase in net long-term private capital and other capital inflows, particularly in the first quarter, combined with higher travel credits, contributed to reserve growth of \$109.1 million, pushing the NIR to \$1,657.1 million or 31 weeks import cover for goods and services, as compared to 28 weeks at the end of June of 2007.

In line with the monetary stance adopted by the Central Bank, commercial bank credit to the non-financial private sector continued the pick-up observed in the second half of 2007. Nonetheless, the accumulation of domestic deposits still outpaced credit growth, leading to higher excess liquidity in the banking system. The elevated level of liquidity, as evidenced by an increase in the liquid asset ratio, contributed to a decrease in the three-month Treasury bill rate from 4.84% to 4.25% as at the end of June.

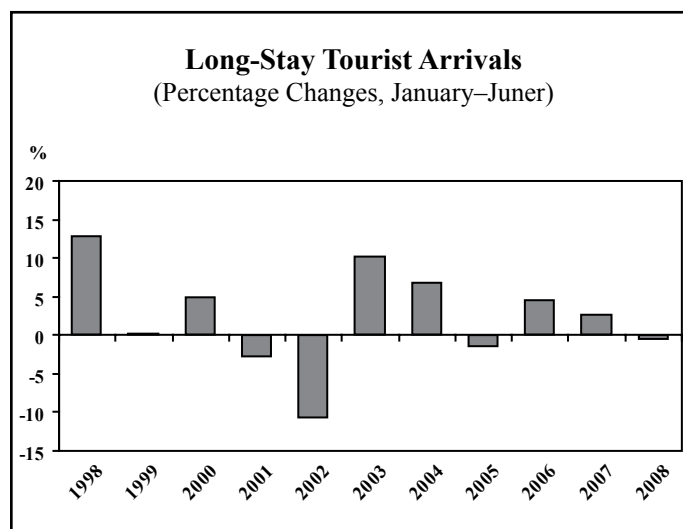
Government's fiscal deficit was \$295.6 million, more than double the first half deficit observed in 2007, as dual increases in capital and current expenditure well exceeded additional tax collections.

Production, Prices and Employment

Tourism

Tourism value-added increased by an estimated 1.9% during the first two quarters of 2008, compared with a 3.1% expansion in the first half of 2007 when Barbados hosted a series of CWC matches. While the number of long-stay tourist arrivals declined by 0.6% - a turnaround from the 2.7% gain one year earlier - cruise ship passenger arrivals remained strong, rising by 10.4%, on top of the 13.7% recorded in the equivalent period of 2007.

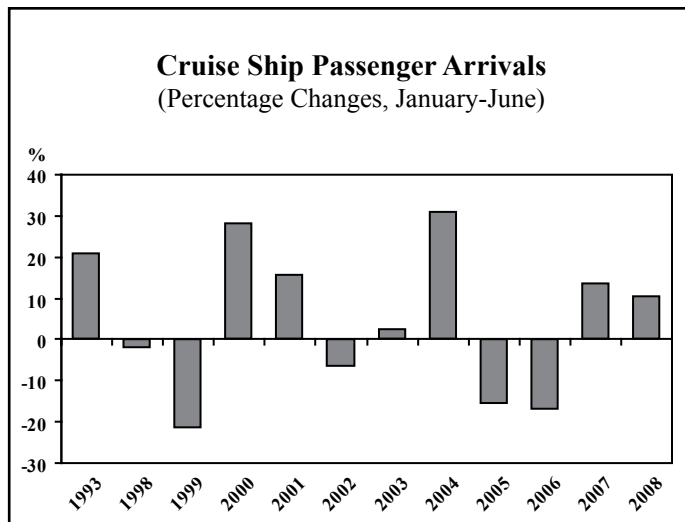
During the six-month review period, the sluggish US economy, coupled with higher travel costs, contributed to a 1.1% decline in long-stay arrivals from that destination,



in contrast to the 2.3% growth recorded one year earlier. Additionally, while aggregate arrivals from CARICOM improved by 13.9%, there was a 7.3% decline in persons travelling from Trinidad and Tobago. Further, following a substantial increase in arrivals from non-traditional source markets in the corresponding period of 2007, largely related to CWC activities, there was a 44.1% decline in arrivals from these markets, reflecting a return to pre-CWC levels.

These declines overshadowed the improved arrivals from other major source markets, including the UK and Canada, which were up by 2.3% and 5.1%, respectively, compared to increases of 5.6% and 3.9% during the corresponding period of 2007. The number of persons travelling from Germany rose by 12.0% after registering a 32.0% decline in the first half of the preceding year. The expansion in arrivals from these markets was buoyed by the appreciation of the Canadian dollar, pound sterling and the euro vis-à-vis the US dollar.

The positive performance of the cruise industry resulted from a 23.1% jump in arrivals during the first quarter, which more than offset the 13.6% second-quarter decline. The overall strong outturn of the cruise sector resulted from the docking of higher-capacity vessels at the Bridgetown Port.



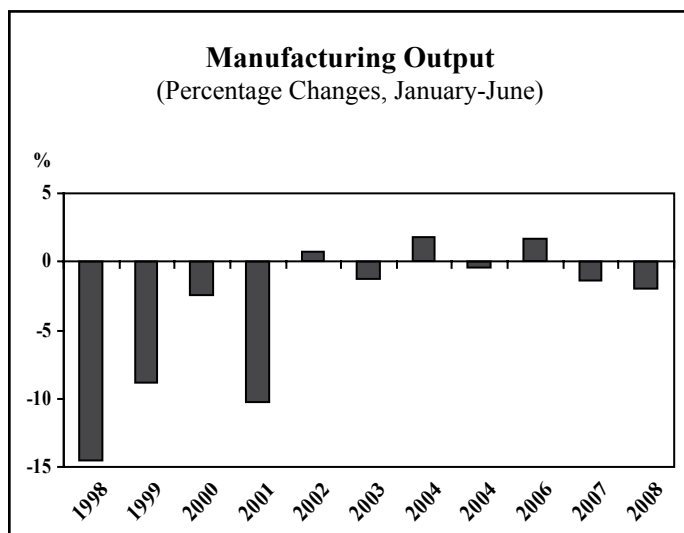
International Business and Financial Services

During the first six months of 2008, 324 new licences were issued to international business and financial service companies, 18 more than in the equivalent period of 2007. Of the total licences issued, 264 were granted to new international business companies (IBCs), 56 more than in the first half of the previous year. Conversely, 34 fewer licences for societies with restricted liability (SRLs) were approved during the review period. Two exempt insurance companies were given permission to commence operations, half the number recorded during the similar period in 2007. No new offshore banks or exempt insurance management companies were issued licences.

Manufacturing

Output in the manufacturing sector declined by an estimated 2.0%, following a decrease of 1.4% in the corresponding period of 2007. Overall production was depressed primarily by a 6.2% drop in chemical output, which reversed the 7.6% increase reported in the corresponding period of 2007. The decline in the production of chemicals resulted from reduced capacity in the industry caused by the destruction of one of the leading producers in the second half of 2007. Production declines were also

recorded for other non-metallic mineral products (3.6%), other manufacturing industries (1.6%), beverages & tobacco (1.0%), wooden furniture (10.1%) and garments (9.3%).



The weak performances in these sub-categories outweighed greater output in the food processing industry and the production of electronics – the latter of which made a significant recovery from the double-digit contraction registered in the first six months of 2007 due to an improved overseas marketing campaign which contributed to increased export demand.

Agriculture and Fishing

During the first six months of 2008, approximately 33,100 tonnes of sugar were processed, representing a 6.9% decline when compared to the output in the corresponding period of 2007. A late start to harvesting contributed to a 15% decline in first-quarter production, which eclipsed the 5% second-quarter rise in output.

The reduced tonnage harvested was also indicative of the decreased acreage and other processing problems in the industry, which have affected the sector since 2000. Output in non-sugar agriculture and fishing expanded by

1.4%, a slowdown from the 6.9% advance recorded during the corresponding period of 2007. Fish catches expanded by 6.5% as compared to 26% recorded one year earlier. Milk and chicken production also expanded at slower rates, rising by 2.1% and 0.9%, respectively, as compared to 5.1% and 8.8% in the corresponding period of 2007.

Construction

Activity in the construction sector declined by an estimated 6.7% during the review period, in stark contrast to the average 6.3% growth experienced during the first six months of the preceding five years. The decline in construction activity was accompanied by a substantial (42.2%) fall in domestic cement consumption, as well as a 13.2% drop in the value of imported construction materials. The deterioration in the performance of the industry reflected the completion of CWC-related infrastructural projects and a slowdown in private sector residential and commercial development.

Other Non-traded Sectors

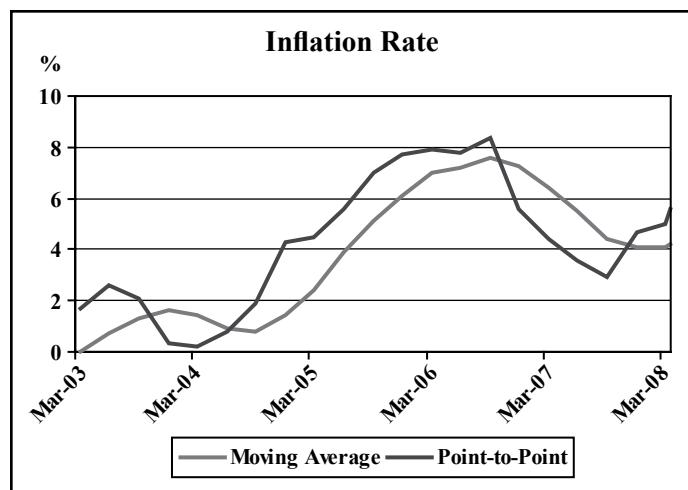
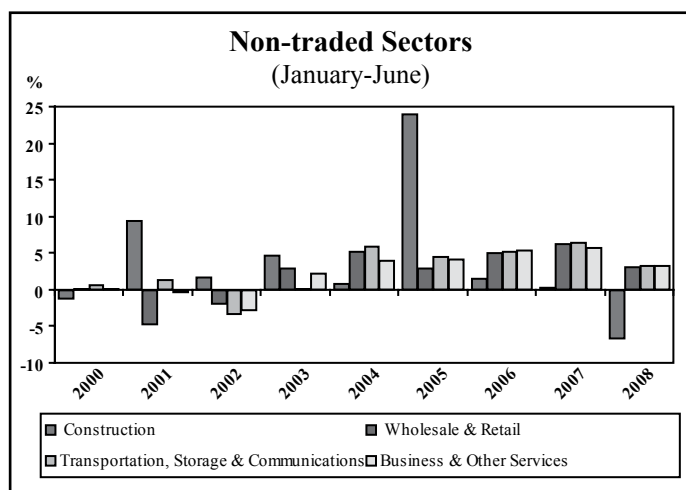
While activity in the construction sector waned, the other non-traded sectors exhibited signs of growth, despite slowing relative to the first six months of 2007. Weaker visitor arrivals and reduced domestic demand tempered output in wholesale and retail trade to approximately 3.2% from

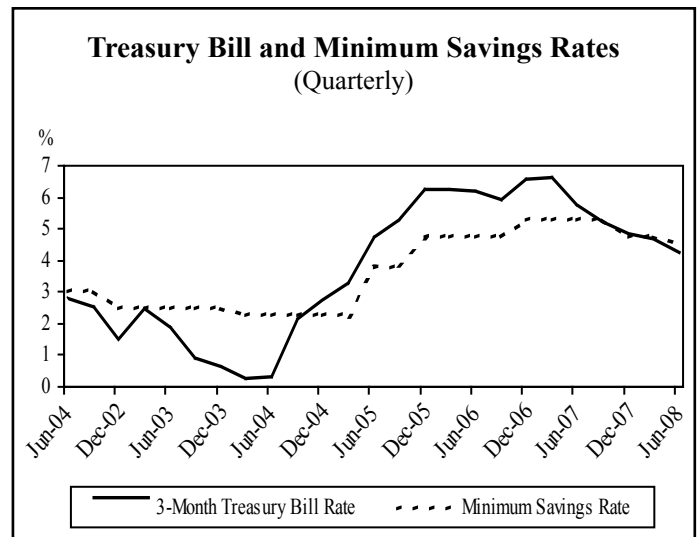
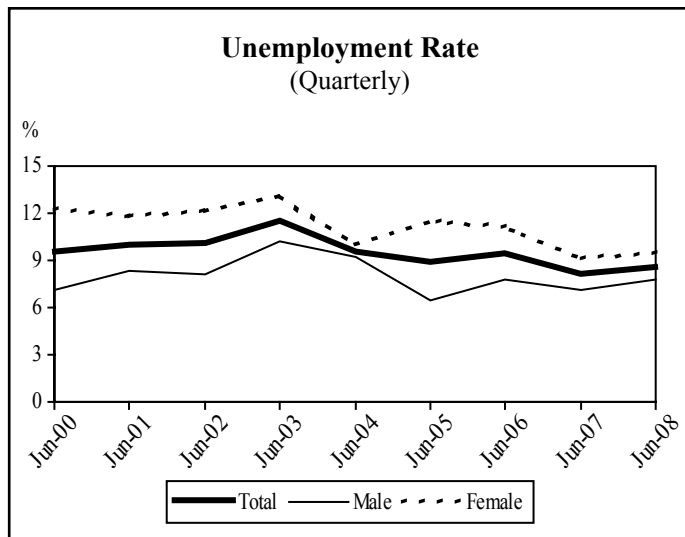
6.3% in 2007. Slower rates of growth were also recorded for the business and other services and transport, storage and communication categories, as each of these sectors rose by 3.3%, down from first-half 2007 levels of 6.5% and 5.8%, respectively. Mining and quarrying activity remained weak during the review period, increasing by just 0.9%, primarily on account of the ongoing gradual depletion of onshore oil wells.

Prices and Employment

Preliminary first-half data indicate that rising international oil and other commodity prices, coupled with a reduction in the fiscal price support on gas and diesel in April, exerted a significant impact on domestic prices. At the end of May 2008, the point-to-point rate of inflation was 8.5%, more than double the 3.4% recorded for the same period one year earlier.

The increase was chiefly the result of a 13.4% jump in the price of food as well as increases of 13.9% and 17.7% in fuel and light and transportation costs, respectively. On the other hand, the 12-month moving average rate of inflation, which explicitly accounts for short-term price swings, stood at 4.8% at the end of May, a decline from the 5.9% recorded during the corresponding period of 2007. The decline in the moving average rate illustrated the slower growth in prices during the 12-month period ending May 2008, relative to the period between May 2006 and May 2007.





Initial estimates indicate that total unemployment was just above the rate recorded during the second quarter of 2007, increasing by 0.5 percentage points to 8.6%. The estimated increase in the unemployment rate was predicated on rises in both male and female unemployment, which grew by 0.7% and 0.3% respectively. The lacklustre performance in construction was reflected in a 7.1% decline in construction-related employment when compared to the equivalent period one year earlier, while a 6.0% contraction in wholesale and retail trade employment was indicative of sluggish growth in those industries. In line with gains in transport and communication, the total number of persons employed in that field grew by 27.4% compared to the second quarter of 2007.

Financial Sector

Liquidity and Interest Rates

Commercial bank deposits outpaced credit to the non-financial private sector, continuing the build-up of excess liquidity in the banking system observed during 2007.

As a result, the liquid asset ratio rose to 13.6%, compared to the 11.8% recorded at the end of 2007. Excess cash balances at banks more than doubled, as evidenced by

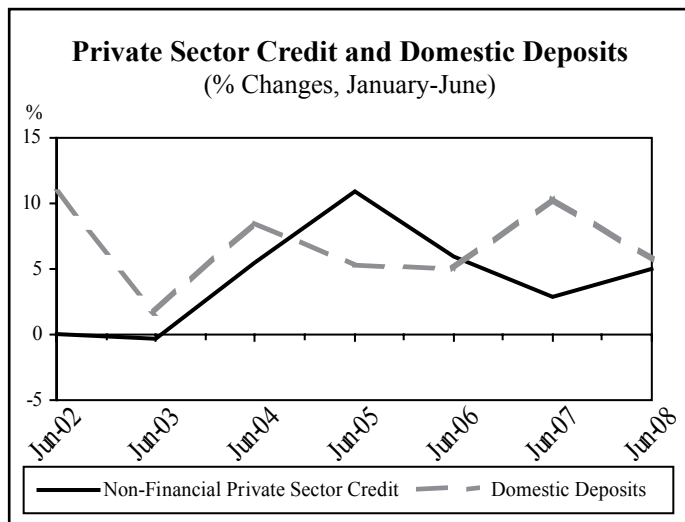
the increase in the excess cash to deposit ratio from 2.2% in December 2007 to 5.2% at the end of June. Excess reserves held at the Central Bank increased by \$224.6 million while commercial banks' excess securities increased by \$150.1 million to \$650.0 million. The accumulation in excess liquidity contributed to higher demand for short-term investments, including Treasury Bills, and a concomitant fall in the 3-month Treasury bill rate to 4.25%, from 4.81% at the end of December 2007.

With the main objective of encouraging lending to the productive sectors, the Central Bank reduced the minimum deposit rate in April from 4.75% to 4.5%. At the end of May, the weighted average lending rate on total loans fell by 0.3 basis points to 10.3% while the weighted average deposit rate declined by 35 basis points to 4.45%.

Credit

Lending to the non-financial private sector rose by 5.0% (\$224.9 million) during the first six months of 2008, well above the 2.9% (\$123.3 million) increase recorded in the similar period of 2007.

Professional and personal lending rose by 17.1% and 2.6% respectively, compared with the 16.1% and 5.0% improvements recorded during the corresponding



period of 2007. Lending to the distribution sector also picked up by 3.5%, 0.6 percentage points above the expansion rate recorded up to June of 2007.

In contrast, lending to tourism-related borrowers fell by 7.1%, whereas credit to that sector had remained virtually unchanged in the corresponding period of the preceding year. Similarly, lending to manufacturing entities fell by 6.4%, on top of a 1.0% decline during the equivalent period in 2007.

Deposits

Total domestic deposits grew by 5.6% in the first six months of 2008, well below the 10.3% recorded in the corresponding period of 2007. The slowdown was attributed to the reduced pace of economic growth and a moderation in foreign capital inflows.

The rates of expansion in the deposits of business firms and private individuals moderated to 0.1% (\$1.8 million) and 3.2% (\$128.9 million), respectively, in contrast to the increases of 5.6% and 6.4% recorded during the first half of 2007. Moreover, deposits of statutory bodies advanced by \$38.2 million – a 20.6% increase that was nevertheless below the 34.5% growth experienced one year earlier. Deposits held by financial institutions expanded by \$82.1 million or 6.3%, well below the \$139.9 million or 13.1% recorded in the similar period of 2007.

On the other hand, deposits of Government made a turnaround from the \$4.6 million (4.6%) decline in 2007, recording a \$30.5 million (26.1%) increase over the review period.

Government Securities

Outstanding Treasury bills at the end of June were valued at \$686.8 million, \$3.5 million less than the value outstanding at the end of December 2007. The decline in outstanding T-bills reflected reduced holdings by the Central Bank and other investors, which declined by \$19.8 million and \$40.9 million, respectively, outweighing the \$57.3 million increase in holdings of commercial banks.

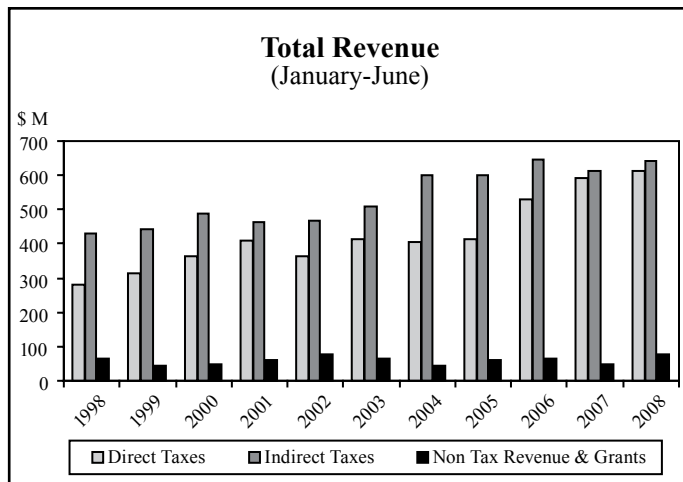
Provisional data for the review period indicated that holdings of Barbados Savings bonds declined by \$7.4 million to \$94.1 million, while the value of outstanding debentures advanced by \$116.7 million. During the period, insurance companies and the National Insurance Scheme increased their debenture holdings by \$10.9 million and \$71.5 million, respectively, while other investors increased their holdings by \$19.9 million.

Public Sector

Revenue

During the first six months of 2008, total revenue increased by \$82.1 million (6.6%) to \$1,332.9 million, well above the \$9.1 million (0.7%) gain recorded in the corresponding period of 2007, reflecting improved collections of both direct and indirect taxes.

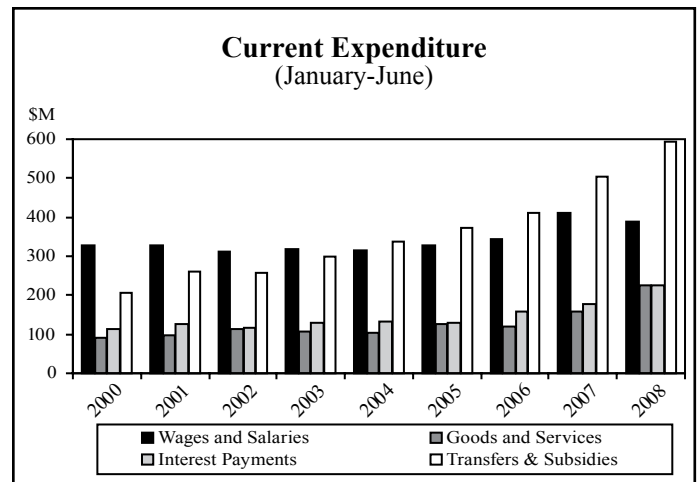
The intake of indirect taxes rose by 5.2%, a reversal of the 5.5% decline recorded in the corresponding period of 2007. The rise in indirect taxes was fuelled by increased collections of import duties of \$11.0 million (12.8%) and excise taxes of \$8.2 million (10.9%) resulting from the surge in the value of retained imports. This improvement was in contrast to double-digit percentage declines in both categories during the first half of 2007. The moderation in economic activity slowed the growth in VAT collections to 1.9% or \$7.4 million, down from 3.5% or \$12.8 million growth one year earlier.



Direct tax collections increased by 5.1%, compared to the 10.4% jump registered during the equivalent period of 2007. Despite this slower growth, which was primarily on account of slower expansion in corporate tax receipts, direct tax collections remained robust, standing at \$1,256.3 million at the end of June. Corporate taxes increased by 10.7%, on top of the 16.3% expansion recorded in the first six months of the preceding year. This growth in corporate tax collections, occasioned by the increased economic activity and in particular the strong performance of the international business sector, outweighed the declines in property (8.0%) and personal (1.5%) taxes which followed a reduction in the property transfer tax rate from 7.5% to 2.5% in April of 2007 and an upward revision of the personal tax-free allowance, respectively.

Expenditure

Total current expenditure rose by 14.5% to \$1,434.6 million, compared to the 20% reported during the corresponding period of 2007. While transfers and subsidies recorded the largest gain – advancing by 17.7% – the expansion was below the 22.4% rise recorded in the first six months of 2007 when CWC-related spending contributed to increased expenditure. The increase in transfers and subsidies during the review period reflected higher outlays to the Barbados Agricultural



Development Management Corporation (BADMC), the University of the West Indies (UWI) and the Transport Board.

Spending on goods and services expanded by 41.5%, well above the 31% registered in the first half of the previous year. This outturn was due in large part to a reclassification exercise which allocated all items valued less than \$3,000 – some of which would previously have been categorized as capital expenditure – into the goods and services category.

Higher costs associated with servicing both domestic and foreign debt pushed interest-related expenditure up by 28.1% to \$221.0 million. On the other hand, spending on wages and salaries declined by 5.7%, as compared to the 19.0% jump observed in the corresponding period of 2007 when government met its retroactive pay obligations.

Capital expenditure rose by a substantial 43.5%, in contrast to a 24.8% or \$40.1 million decrease in the first half of 2007 when spending declined in line with the completion of a number of government-funded projects. The rise in capital spending was primarily due to a \$60.9 million first-quarter increase in outlays to government ministries for refurbishment work and the rehabilitation of the road network, including the expansion of the ABC Highway.

Government Operations
(January – June)
(\$Million)

	2004	2005	2006	2007	2008 ^a
Total Current Revenue	1051.0	1078.7	1241.8	1250.9	1334.4
Tax Revenue	1006.2	1015.3	1175.6	1195.7	1257.7
<i>Direct Taxes</i>	407.3	412.8	530.7	586.1	614.0
Personal	189.9	158.8	177.6	194.4	191.9
Corporate	155.7	198.0	270.2	314.3	343.4
Levies	0.0	0.0	0.0	0.0	0.0
Stabilization	0.0	0.0	0.0	0.0	0.0
Property	32.2	34.3	48.3	38.6	34.8
Other	29.5	21.8	34.6	38.8	43.8
<i>Indirect Taxes</i>	598.9	602.5	644.9	609.6	643.7
Consumption	0.0	0.0	0.0	0.0	0.0
Stamp	8.3	10.3	11.4	14.3	13.2
VAT	315.5	323.1	370.3	383.1	390.4
Excises	107.1	100.5	111.1	75.1	83.3
Import Duties	101.0	102.1	95.6	86.2	97.3
Hotel & Restaurant	0.0	0.0	0.0	0.0	0.0
Other;	67.0	66.4	56.5	50.9	59.4
Non Tax Revenue & Grants	44.8	63.4	66.1	55.2	76.7
Current Expenditure	893.3	959.4	1038.5	1252.7	1434.6
Wages & Salaries	316.2	328.1	346.0	411.7	388.1
Goods & Services	105.4	126.7	121.8	159.6	225.9
Interest	134.4	130.5	158.5	177.2	227.0
External	55.9	45.4	57.8	58.7	95.2
Domestic	78.5	85.0	100.7	118.5	131.8
Transfers & Subsidies	337.2	374.1	412.1	504.2	593.5
Current Account Balance	157.7	119.3	203.3	50.4	-100.2
Capital Expenditure	124.4	134.5	162.0	141.0	194.1
Net Lending	1.6	28.6	37.3	0.6	0.1
Total Expenditure and Net Lending	1019.3	1122.4	1237.8	1394.3	1628.8
Overall Balance	31.7	-43.7	4.0	-143.4	-294.2

Source: The Central Bank of Barbados

Financing

The fiscal deficit was \$294.2 million, more than double the \$142.9 million recorded during the corresponding period of 2007. The widening fiscal deficit was funded chiefly from

domestic sources, with private non-bank entities accounting for \$99.7 million and commercial banks providing \$23.7 million. Additionally, the National Insurance Scheme increased its holding of government debt by \$16.0 million.

Government Financing
(January – June)
(\$Million)

	2004	2005	2006	2007	2008 ^P
Domestic Financing	(3.5)	80.6	20.3	179.4	326.7
Central Bank	(72.9)	(20.4)	129.2	4.4	(9.9)
Commercial Banks	79.4	9.5	(85.6)	69.6	23.7
National Insurance Scheme	20.0	125.6	10.0	51.0	16.0
Other Private Non-Bank	48.6	115.5	62.7	120.9	99.7
Other Public Sector	0.0	0.0	0.0	0.0	0.0
Other	(78.5)	(149.6)	(127.4)	(66.5)	244.6
Divestment	0.0	0.0	31.4	0.0	0.0
	0.0	0.0	0.0	0.0	0.0
Foreign Financing (net)	(28.2)	(36.9)	(24.2)	(36.5)	(32.4)
Capital Markets	0.0	0.0	0.0	0.0	0.0
Project Funds	16.0	7.9	28.9	13.8	23.0
Policy Loans	0.0	0.0	0.0	0.0	0.0
Amortisation	(44.2)	(44.7)	(53.1)	(50.3)	(55.4)
Divestment	0.0	0.0	0.0	0.0	0.0

Source: The Central Bank of Barbados
P: Provisional

Foreign Trade and Payments

The current account of the balance of payments registered its sixth consecutive January-to-June deficit, widening by a further \$91.8 million to \$230.8 million. The deterioration reflected a \$252.3 million (7.7%) increase in retained imports, which surpassed the \$120.6 million (2.4%) improvement in net service receipts and the \$27.7 million (10.3%) gain in domestic exports.

The expansion in retained imports was chiefly the result of a \$232.3 million (41.4%) increase in intermediate goods imports; primarily the result of a surge in the value of fuel imports, which more than doubled to \$404.5 million. Additionally, the value of consumer goods imports increased by \$21.6 million (3.9%). These increases significantly outweighed the \$3.7 million (1.2%) decline in capital goods imports.

Travel credits increased by \$87.5 million (7.3%) during the period, largely reflecting the pick-up in tourism value added and price inflation, and provided the main

impetus for the improved performance in total services trade. The rise in domestic exports stemmed from increased exports of food and beverages and fuel of \$4.1 million (16.9%) and \$4.8 million (22.2%), respectively, as well as an \$8.5 million (12.8%) increase in exports in the other manufactures category.

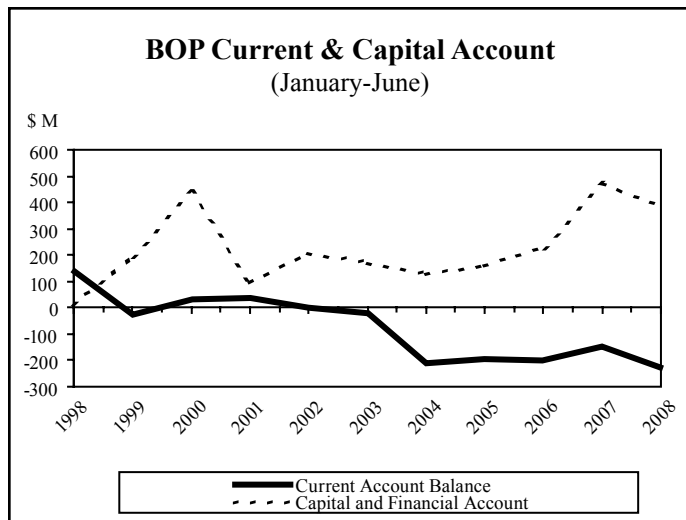
Additionally, the intensified international marketing campaign increased foreign demand for electronic components, leading to a \$1.8 million (16.0%) growth in electronics exports – a turnaround from the lacklustre performance in the corresponding period of 2007. On the other hand, falling domestic sugar production contributed to a \$1.2 million (2.6%) decline in export earnings.

Capital and Financial Account

The surplus on the capital account narrowed to \$383.2 million at the end of the first half of 2008, down from \$471.2 million recorded for the first six months of 2007. The reduction in the surplus was mostly due to a net long-term

public sector outflow of \$26.7 million when compared to net public sector inflows of \$74.8 million recorded in the first half of 2007, when two first-quarter bond issues for the BAMC and BIDC totalling \$86.6 million more than compensated for the amortisation outflows during that period.

On the private side, net inflows decreased by \$12.4 million to \$209.9 million during the review period, as loans to tourism related projects, funds for real estate and the purchase of shares, were not enough to compensation for the outflow of capital for private sector loan payments. Short-term inflows amounted to \$34.9 million, approximately half the value in the corresponding period of 2007 when there was a \$34.1 million bridging loan to the Grantley Adams International Airport that boosted short-term flows.



Balance of Payments

(January – June)

(\$Million)

	2004	2005	2006	2007	2008 ^P
Current Account Balance	-211.0	-198.3	-195.3	-139	-230.8
Merchandise Trade	-950.6	-1,024.2	-919.1	-973.7	-1174.6
Total Exports (BOP Basis)	221.5	283.8	354.1	379.4	344.4
Domestic Exports	187.9	228.7	275.1	269.6	297.3
Sugar	44.9	45.4	44.6	46.3	45.1
Elec. Comp	15.0	16.0	24.0	11.0	13.3
Chemicals	20.0	27.0	29.0	31.0	38.2
Food/Beverages	40.0	58.0	49.0	65.0	71.1
All Other	68.0	82.0	128.0	116.0	129.7
Total Imports (BOP basis)	1,229.00	1,388.00	1,403.00	1,493.00	1677.1
<i>Retained Imports</i>	1,281.00	1,419.00	1,372.00	1,428.00	1680.7
Consumer Goods	495	572	502	549	570.4
Capital Goods	314	278	319	312	308.2
Inter. Goods	466	564	544	561	793.5
Misc. Goods	6.0	5.0	7.0	7.0	8.6
Services (net)	778	882	865	972	1092.9
Travel Credits	910	1,025.00	1,102.00	1,193.00	1280.9
Other	138	135	115	141	182.7
Investment Income (net)	-113	-155	-191	-217	-230.7
Transfers (net)	75	99	50	80	81.6
Capital and Financial Account	125.4	158.8	227.9	471.2	383.2
Long term	-68.9	-16.7	400.2	297.1	183.2
Public	-64.4	17.4	-5.7	74.8	-26.7
Private	-4.6	-34.1	405.9	222.3	209.9
Other	26.7	27.7	42.4	105.6	165.1
Short-term	167.6	147.8	-214.7	68.5	34.9
Errors & Omissions	243.4	-47.9	-33	11.8	-15.1
Balance for Official Financing	157.3	-87.4	0.0	344	137.3
Official financing	0.0	0.0	0.0	0.0	0.0
IMF	0.0	0.0	0.0	0.0	0.0
Other Fin. Inst.	0.0	0.0	0.0	0.0	0.0
Reserve movements (CBB basis)	-157.3	87.4	0.0	-344	-137.3
(-Increase/+Decrease)					
Change in NIR - (IMF basis)	25.0	23.6	-71.6	260.2	109.1
(-Increase/+Decrease)					

Source: Source: The Central Bank of Barbados and Accountant General

Regional Economic Developments

Overview

During the first quarter of 2008 most Caribbean territories recorded modest growth in the face of international challenges, though slowing somewhat relative to 2007. Tourism performances in the region were mixed, though most territories recorded continued growth in visitor arrivals. Sluggishness in non-traded activity in some of the countries under review dampened overall output. Throughout the period, inflation was a major concern for most economies, as higher international commodity prices impacted not only balance of payments accounts, but also filtered through to domestic prices, which in turn impacted agriculture and other productive sectors via higher input costs. As a result, monetary policy was generally directed to containing inflation, as monetary authorities increased interest rates and used open market operations to mop up excess liquidity.

Available data suggest that during the first quarter, the performance of Jamaica's tourism industry was driven by growth of 11.5% in total stopover visitor arrivals, a reversal from the decline of 2.1% in the similar period in 2007. The significant growth in long-stay visitors was on account of increased airlift, an aggressive advertising campaign in Europe and the United States and the opening of a major hotel in the quarter. In the Bahamas, arrivals improved by 2.3% during the first quarter, driven by a 3.5% expansion in air traffic and a 1.8% rise in cruise arrivals, the latter fuelled in part by the return of several cruise ships and increased load factors. Tourism growth in Grenada was also significant in the first quarter, increasing by 7.9% relative to 2007, well above the 3.4% growth-rate recorded in the first quarter a year earlier. On the other hand, provisional data for Belize indicate that both long-stay and cruise arrivals declined, falling by 0.9% and 16.9% respectively.

As with tourism, the construction industry, which contributed significantly to some regional economies in the lead-up to the CWC 2007, recorded mixed results over the

period under review. In Jamaica, construction is estimated to have registered growth for the sixth consecutive quarter, reflecting continued investment inflows for tourism and telecommunications-related development. Construction activity in the Bahamas weakened relative to the first quarter of 2007.

Jamaica's mining & quarrying sector slowed on the back of declines of 4.2% and 1.8% in alumina and total bauxite production, respectively. The slowdown was caused by a series of mechanical problems at one of the alumina companies as well as the impact of the island wide electricity outages, which disrupted industry operations. In Trinidad and Tobago, the output of the fuel and energy sector was mixed. During the quarter, liquefied natural gas and crude oil production declined by 1.6% and 4.1% year-on-year, respectively, while improvements of 22.1% and 7.8% were recorded in the production of gas and fuel oil and methanol respectively.

Regional agricultural output in the quarter was sluggish, as unfavourable weather through the second half of 2007 as well as high input costs put strain on domestic farmers. Output in Jamaica's agricultural sector contracted, reflecting the lagged impact of Hurricane Dean coupled with prolonged heavy rains in the latter half of 2007. Preliminary data suggest that domestic agriculture production declined by 21.0%, primarily on account of declines in the output in fruits, vegetables and condiments. On the export side, there was no trade in bananas, while the exports of coffee and sugar declined by 40.0% and 31.3%, respectively.

Preliminary data from the OECS suggest that declining banana production reduced overall output in the agricultural sector while initial estimates suggest that rising import costs for many of the industry's inputs negatively impacted Trinidad and Tobago's agricultural sector.

Inflation did not only affect agriculture, but presented a major challenge for most regional economies during the review period. In Jamaica, headline inflation reached 5.2% during the first quarter, well above the 2.5% recorded during the first three months of 2007. During the quarter, inflation was primarily fuelled by excess demand for select domestic

commodities, particularly food, with food & non-alcoholic beverages inflation reaching 7.2%, compared to 3.9% inflation in non-food categories. Additionally, higher import costs contributed to rising domestic prices, as evidenced by the 4.6% increase in the Central Bank of Jamaica's Bank's import price index.

Higher import costs also affected inflation in the Bahamas, as the 12-month moving average at March 2008 remained virtually unchanged, standing at approximately the same 2.3% recorded in the previous year. The main contributors to the higher prices were furniture & household operations (6.6%), food & beverages (3.8%) medical care & health (3.5%) and transport and communication (3.1%). Headline inflation in Trinidad and Tobago at March 2008 was 9.7%, well above the 8.0% recorded one year earlier. As in the other territories, food prices fuelled general inflation, the former rising to 19.7% in March. In addition to higher import costs, Trinidad's inflation was attributed to increased demand pressures resulting from continued expansionary fiscal policies and rapid credit expansion.

In response to the imported and demand-driven inflation, regional central banks intervened during the review period. In Jamaica, the Bank of Jamaica tightened monetary policy during the first quarter, raising its open market operations rate by 100 basis points in January and then by an additional 85 basis points one month later. In line with these measures, the overall weighted average lending rate increased by 22.0 basis points to 13.33% at the end of March, while the weighted average lending rate on private sector loans rose by 6.0 basis points during the same period. In an effort to reign in inflation, the Central Bank of Trinidad and Tobago raised reserve requirements on commercial banks from 11.0% to 13.0%. At the same time, the measure was supported by an increase in the Repo rate in February by 25 basis points to 8.25%. In line with this move, commercial bank interest rates continued to rise through the quarter as the prime lending rates moved up 50 basis points cent to 12.25%.

Excess liquidity continued to characterise most regional

financial sectors over the review period. Excess liquid assets in the Bahamas rose by \$115.2 million, compared with an \$85.9 million improvement in 2007. The widening liquidity resulted from slowing growth in private sector credit, which was approximately 10% below the 2007 growth rate and occurred because of a contraction in consumer credit, primarily related to the stagnation in consumer mortgages. At the same time, domestic deposits expanded by 8.0%, reflecting an improvement in both fixed and demand balances, which offset a slight downturn in saving deposits.

Similarly, in Trinidad and Tobago, deposit growth continued to outpace the growth in credit. Up to the end of March 2008, credit to the private sector increased by 5.6% relative to December, compared with a 3.0% rise in March of the previous year. Meanwhile, total deposits grew by 6.8% relative to December, driven by increased deposits by the public sector, private financial institutions, incorporated business and consumers.

The stock of private sector credit increased by 2.7% in Jamaica during the quarter, well below the 5.1% recorded at the end of December. The slowdown in growth reflected a moderation in loans and advances, primarily on account of increased net repayments by tourism and distribution sectors as well as a moderation in the growth rate of personal loans and loans to transport, storage and communication and electricity, gas & water borrowers. The poor performance of lending in these categories undermined the robust growth in credit to a number of other sub-sectors, including construction and land development, manufacturing, professional & other services and entertainment.

Simultaneously, domestic deposits declined by 1.4%, in contrast to marginal growth of 0.2% in the corresponding quarter of 2007, reflecting declines in all components, particularly demand and time deposits.

On the fiscal side, the Jamaican national budget registered a surplus of \$2,684.8 million or 0.34% of GDP during the quarter, which was well below the \$9,309.2 million or 1.2% of GDP anticipated for the period. The differential between the expected and actual surplus was result of higher

than targeted expenditure on a host of programmes, including expenses associated with the passage of Hurricane Dean, which overshadowed higher revenues that came from capital and non-tax revenue, as well as grants.

Preliminary estimates from the Bahamas suggest that the fiscal deficit widened, resulting from increases in aggregate expenditure, which outstripped marginal gains in revenue. The increase in spending was occasioned by a hike in transfer payments, which outpaced the reduction in capital spending. Tax receipts moved up modestly as higher collections from services, business & professional fees and international trade taxes offset declines in other miscellaneous taxes.

International Economic Developments

Overview

By the end of the second quarter, world economic activity Throughout the first half of 2008, global economic growth decelerated, as many economies grappled with the twin challenges of inflation and declining output caused by skyrocketing international commodity prices and waning aggregate demand. During the period, tight credit conditions in world financial markets, declining real estate values and rising unemployment rattled both investor and consumer confidence and exerted downward pressure on economic growth. At the same time, as many international policy-makers sought to stimulate their economies through fiscal and monetary policies, a 47.1% rise in petroleum prices, coupled with increasing non-oil commodity costs, pushed inflation higher and made tackling the two conflicting problems more complex.

However, during the review period, the relatively strong performance of emerging economies in Asia and Latin America cushioned the impacts of the sluggish outturns in the advanced nations on real global growth.

Advanced Economies

Economic conditions in the United States were varied, as higher-than-expected output was accompanied by weaker employment figures and rising inflation. Real GDP growth stood at 2.5% year-on-year in the first quarter, which was above the 1.5% recorded in the first quarter of 2007 and just above the average first-quarter rate of 2.4% for the preceding five years. Preliminary data suggest that in the second quarter, growth slowed considerably. As a result, the average rate of unemployment inched higher during the first half, rising 0.8 percentage points to 5.2%. With higher jobless claims, consumer confidence waned during the review period, as evidenced by one of the lowest recorded readings in the Conference Board Consumer Confidence Index – an indicator of the extent to which consumers are optimistic about the state of the economy and their patterns of saving and consumption.

In an attempt to spur output growth and avert a recession, both the US Federal Reserve Board (Fed) and the government intervened during the review period. After three successive rate cuts in the last half of 2007, the Fed continued its aggressive interest rate slashing through the first half of 2008, lowering the Fed Funds rate from 3.94% at the beginning of the year to 2.0% by the end of June. The authorities implemented the first phase of a \$168-billion economic stimulus package in May, which involved lump sum payments to more than 130 million households in an effort to boost aggregate demand and, accordingly, encourage increased output and investment.

However, the scope for further stimulus narrowed, as there was a sizeable increase in inflationary pressures, both domestic and external. Moreover, in line with the slowdown in the US economy, the lower interest rates and persistent uncertainty surrounding growth prospects, demand for US dollar-denominated assets contracted, depressing the Dollar by 3.7%, exacerbating the nominal rise in international commodity prices. As a result, US point-to-point inflation rose to 4.4% in June 2008 in contrast to the 2.7% recorded

one year earlier, as energy price-inflation increased nearly six-fold from 4.6% to 24.7% and food prices rose 5.3%, in contrast to the 4.1% rise in June 2007.

Higher commodity prices and the slowing US economy contributed to downward pressure on the economies of a number of other countries in both the developed and developing world.

The Canadian economy expanded by 2.0% during the first quarter, as strong domestic demand supported modest increases in retail trade, accommodation services, and finance and insurance, which offset declines in some transportation industries, manufacturing and mining. However, the uncertain outlook for the US economy – Canada’s major trading partner – and the appreciation of the Canadian-US Dollar exchange rate, presented significant downside risks to export growth. As a result, Canada lowered its overnight interest rate three times in the first half of 2008, reducing the rate from 4.25% in December to 3.0% by the end of June, in an effort to maintain domestic demand in light of poor export performance.

While inflationary pressures remained a concern for Canadian policy-makers, preliminary numbers suggest that during the second quarter, inflation had risen to 2.4%, just 0.2 percentage points above the rate recorded during the corresponding period of 2007.

In the UK, economic growth is estimated to have slowed through the first half as a result of deceleration in manufacturing and service sectors growth as well as declining output in the other productive industries.

At the same time, appreciation of the pound sterling vis-à-vis the US dollar could not fully cushion the country from the impact of imported inflation, as domestic consumer prices rose by an average of 3.4% during the June quarter, up from 2.6% one year earlier. Notwithstanding these higher prices, the slowdown in economic growth and strong prospects for further moderation in the economy led the Bank of England (BOE) to deviate from its anti-inflationary monetary policy stance and, during the period, the BOE lowered its official rate by a cumulative 50 basis points to 5.0%.

Early indicators also suggest that economic growth in the euro zone slowed over the first half of 2008, as second-quarter growth declined, more than offsetting the improved output in the first quarter. However, seasonally adjusted unemployment in June remained at the 7.2% recorded at the end of December. Higher international commodity prices filtered through the euro zone, pushing average quarterly inflation in the second quarter to 3.6%, about 1.7 percentage points above the rate recorded in the corresponding period one year ago. Amidst fears that inflation would continue to rise, the European Central Bank maintained interest rates at 3.0% throughout the period.

Economic Indicators: Industrial Economies

Country	Real Output (% Growth)		Unemployment (% Rate)		Inflation (% Rate)	
	2007 Q2	2008 Q2	2007 Q2	2008 Q2	2007 Q2	2008 Q2
Canada	2.5	N/a	6.1	6.1	2.2	2.4
Euro zone	2.5	2.0 p	7.5	7.3	1.9	3.6
Japan	1.8	1.0	3.8	4.0	1.6	1.4
United Kingdom	3.1	1.7P	5.4 JM	5.4JM	2.6	3.4
United States	1.9	N/a	4.4	5.2	2.7	4.4

Source: Various Central Banks and National Statistical Offices
JM-Data available for January to May

Emerging Markets

Initial estimates suggest that China’s economy continued to expand at double-digit rates over the first half of 2008, although at a slower pace than in the January-June period in 2007. One of the main factors influencing output in China was that country’s preparation to host the 2008 Olympic games, which saw the country investing US\$43 billion in infrastructural and other development. At the same time, the depreciating US dollar led to reduced demand for Chinese exports in the US.

However, aggregate demand was maintained as China increased intra-regional trade during the review period. In addition to strong domestic demand, China’s inflation was also heavily influenced by rising international

market prices, which contributed to an average rate of inflation of 8.2% in April.

According to initial estimates, India's economy continued to grow, albeit at a reduced pace, due to continued strong growth in virtually all sectors, including transport, storage & communication, construction and trade, hotels & restaurant trade. Point-to-point inflation reached 7.0% at the end of April.

Latin American nations also faced rising inflation and recorded mixed levels of performance during the first quarter. The economy of Latin America's largest economy, Brazil, grew by 5.8% in the first quarter, faster than the 4.5% recorded in the March 2007 quarter and preliminary data suggest that growth in the second quarter should remain strong. During the period, high levels of credit,

higher incomes and continued fiscal injections drove increased demand and led to higher output. Accordingly, unemployment declined from 10.1% in May 2007 to 7.9% one year later.

However, higher commodity prices and domestic demand pressures pushed inflation higher to an average first quarter rate of 5.1%, 2.0 percentage points higher than the 2007 first half. To address rising prices, policy-makers raised interest rates twice by 0.5 basis points in April and June to 12.25%. On the other hand, Mexico's economy slowed, according to preliminary estimates, as growth in the United States – which buys approximately 80% of Mexico's exports – lost pace. Simultaneously, inflation moved higher as the point-to-point rate reached 5.3% in June, above the 4.0% in the sixth month of the preceding year.

Commodity Prices

Commodities	Jun-07	Dec-07	Jun-08	% Change on Jun-07	% Change on Jun-07
Total (Index of Market Prices)	132.8	156.6	215.2	62.0	37.5
Non-Fuel (Index of Market Prices)	143.7	143.2	169.1	17.7	18.1
Food (Index of Market Prices)	124.6	145.1	180.0	44.4	24.0
Sugar (US ¢ / lb)	9.3	10.4	12.1	30.3	15.5
Bananas (US \$ / metric ton)	778.7	648.5	839.8	7.8	29.5
Rice (US \$ / metric ton)	326.3	378.0	834.6	155.8	120.8
Wheat (US \$ / metric ton)	223.0	368.6	348.6	56.3	-5.4
Soybeans (US \$ / metric ton)	302.8	423.1	552.5	82.4	30.6
Metals (Index of Market Prices)	197.4	162.6	186.3	-5.6	14.6
Aluminum (US \$ / metric ton)	2681.3	2382.8	2967.9	10.7	24.6
Iron Ore (US ¢ / metric ton unit)	84.7	84.7	140.6	66.0	66.0
Copper (US \$ / metric ton)	7514.2	6630.7	8292.0	10.4	25.1
Silver (US ¢ / troy ounce) 1	1332.0	1424.0	1765.0	32.5	23.9
Gold (US \$ / troy ounce) 1	650.3	780.0	926.8	42.5	18.8
Petroleum (US \$ /barrel)*	68.2	89.4	131.5	92.9	47.1

Source: IMF and World Bank Commodity Prices

*Simple average of three spot prices; Dated Brent, West Texas Intermediate, and the Dubai Fateh

Commodity Prices

Commodity prices continued their rise during the first half of 2008, led primarily by increases in energy and food costs. The average international price of oil rose from \$89.4 US\$/barrel to \$131.5 US\$/barrel at the end of June while the prices of sugar, rice and wheat rose by 30.3%, 155.8% and 56.3% respectively relative to a year earlier. Advancing commodity prices have been attributed to a number of factors, principal of which is the unabated demand from emerging markets, including China, Russia and India.

According to the IMF, these emerging economies have accounted for in excess of 90% of the rise in consumption of oil products and metals and 80 percent of the rise in consumption of grains since 2002. Additionally, as the US dollar depreciated, investors diversified their asset portfolios further, investing heavily in commodities such as oil and metals, in an attempt to hedge against further declines in asset value. This higher demand for these commodities, in turn, pushed prices up further.



Regional Stock Exchanges

Barbados Stock Exchange

The Barbados Stock Exchange registered a marginal improvement in the performance of listed companies during the second quarter of 2008, as indicated by the Composite Index, which moved from 1,019.89 to 1,077.52, representing an increase of 5.65%. However, the market capitalization for the Composite Index recorded a significant decline of 14.14%, ending the period at BDS\$ 16.11 billion. This decline was primarily on account of the delisting of Courts (Barbados) Limited and RBTT Financial Holdings Limited from the Barbados Stock Exchange on June 17, 2008. RBTT Financial Holdings Limited was delisted subsequent to the amalgamation of RBTT and RBC Holdings (Trinidad & Tobago) Limited, while the Courts (Barbados) Limited delisting was as a result of its acquisition by Cobalt Holdings Company Limited.

The Local index rose from 4,108.63 to 4,318.55, representing a 5.11% increase for the quarter. The market capitalization for local companies increased by 4.9%, moving movement from BDS \$11.23 billion to BDS \$11.78 billion over the review period. This movement was due to fourteen (14) local companies advancing, six (6) declining and four (4) remaining firm, while one (1) company did not trade for the period. Sagicor Financial Corporation had the greatest increase in share price, climbing from \$5.00 as at March 31, 2008 to \$6.79 by the end of June. The other companies that recorded increases above 20% in the second quarter were Neal & Massy Holdings Limited (25.2%) and Insurance Corporation of Barbados (21.5%). Barbados Farms Limited suffered the largest decline in share price, dropping from \$4.05 to \$3.50 (13.6%). Ansa McAL (Barbados) Limited followed closely behind with a decline of 10.0% and Banks Holdings Limited with 9.4%.

The Cross-Listed index moved from 2,011.88 to 2,142.23, recording an increase of 6.48% for the quarter, as the share prices of most cross-listed companies increased over the period. Given the delisting of RBTT Financial

Holdings Limited, which accounted for 47% of the total capitalization for cross-listed companies, the market capitalization for these companies declined by 42.6% to BDS \$4.32 billion at the end of the quarter.

The volume leader in the regular market was Sagicor Financial Corporation, which traded 1,431,195 shares. Sagicor Financial Corporation was also the most liquid security for the period, accounting for approximately 28% of the shares traded in the regular market. The heightened trading in Sagicor Financial Corporation shares was influenced by the disparity in the company’s share price between the Barbados and Trinidad and Tobago exchanges.

B.S.E. Volume Leaders (April - June 2008)

Table with 2 columns: Institution, Volume Traded (millions). Rows include Sagicor Financial Corporation (1.431), Almond Resorts Inc (0.783), Banks Holdings Limited (0.764), Barbados Shipping & Trading Limited (0.572), and Fortress Caribbean Property Fund (0.281).

Source: Securities Exchange of Barbados

Barbados Mutual Funds

For the second quarter of 2008, mutual funds reported growth in eight (8) instances and marginal declines in two (2) funds, while one fund remained unchanged. This was a significant improvement when compared to the first quarter, when four (4) mutual funds increased and six (6) recorded a marginal decrease and one (1) saw no change.

BNB Capital Growth Fund recorded the highest quarterly increase of 14.1%, up from a decline of 0.76% recorded for the previous quarter. Fortress Caribbean Growth Fund followed behind with 7.21%, an improved performance from last quarter when the fund reported growth of 1.63%.

Clico Balanced Fund Inc followed closely behind, recording an increase of 6.50%, a notable improvement from the first quarter, when it was the only fund that remained unchanged for the period. Sagicor Preferred Income Fund, the best performing mutual fund in the previous quarter, registered the highest quarterly decline for the review quarter, of 2.83%. The other mutual fund to record a decline was Fortress High Interest Fund – DIST, contracting by 1.6% compared to growth of 1.50% in the first quarter of the year.

Jamaica Stock Exchange (JSE)

During the second quarter of 2008, there was a decline in trading volume on the JSE, with the market volume amounting to 531.2 million units at a value of JAM \$6,194.7 million. For the second consecutive quarter, Cable & Wireless Jamaica Limited was the volume leader with 97,304.3 million units traded (18.3% of the market), followed by National Commercial Bank of Jamaica Limited with 94.4 million units (17.8%) and Jamaica Broilers Limited with 81.6 million units (15.4%).

Over the period, 15 companies advanced, 19 declined and 7 remained unchanged. Among the major

companies advancing, Jamaica Broilers Group registered the best performance with a 42.9% increase in share price. Pegasus Hotel registered a 40.6% increase and Palace Amusement a rise of 21.3%. Ciboney Group was the major declining company for the quarter, down by 40.0% after being the best performer in the first quarter. Overall the JSE Index increased in the second quarter, moving from 107,753.26 at the beginning of the period, to 110,268.26 as at June 30, 2008, an increase of 2.3%.

Trinidad and Tobago Stock Exchange (TTSE)

During the second quarter of 2008, the TTSE Index increased by 15.9%, moving from 992.9 points to close at 1,150.2 points. For the quarter, twenty-six (26) companies advanced and one (1) declined, while five (5) traded firm.

Sagicor Financial Corporation was the volume leader with 7,070,588 shares (14.6% of the market), followed by National Flour Mills Limited with 5,089,084 shares (10.5% of the market) and National Commercial Bank of Jamaica Limited with 4,799,448 shares (9.9% of the market).

Mutual Funds Performance

Mutual Funds	June 30 '08 (Bds \$)	March 31 '08 (Bds \$)
Trinidad	%	
Roybar Investment Corp.	4.25	4.13
Fortress Caribbean Growth Fund	5.35	4.99
Fortress High Interest Fund - ACC	1.46	1.44
Fortress High Interest Fund - DIST	1.02	1.03
BNB Income Fund	1.24	1.22
BNB Capital Growth Fund	1.46	1.28
BNB Property Fund	1.71	1.71
CLICO Balanced Fund Inc.	1.31	1.23

Source: Barbados Stock Exchange

Readymix (West Indies) Trinidad Limited headed the list of advancers with 134.0%. National Enterprises Limited followed with 60.6% and L J Williams B with 51.0%.

There was a decided shift in emphasis of concern on the part of the Federal Reserve during the quarter, where recession worries were overtaken by fears of rising inflation.

**Second Quarter 2008
Top-Ten Regional Performers
By Share Price Appreciation (%)**

Barbados	(%)	Jamaica	(%)	Trinidad	(%)
Sagicor	35.80	Jamaica Broilers Group	42.86	Readymix (WI) Trinidad Ltd	134.00
Neal & Massy	25.21	Pegasus Hotel	40.56	National Enterprises Limited	60.61
C&W BARBADOS	21.48	Palace Amusement	21.33	L.J. Williams Limited B	51.00
Cave Shepherd	15.07	Guardian Holdings Limited	20.00	ANSA Merchant Bank Limited	47.45
Insurance Corporation of Barbados	12.70	Salada Foods	19.57	Sagicor Financial Corporation	41.44
Goddard Enterprises Ltd.	10.00	Dehring, Bunting & Golding	17.65	Neal and Massy Holdings Limited	35.50
Sagicor	5.88	Trinidad Cement Limited	17.35	Trinidad Cement Limited	34.87
Neal & Massy	4.88	Grace Kennedy & Co	9.19	ANSA McAL Limited	26.51
Grace, Kennedy & Co. Ltd	4.38	Scotia Group Jamaica	6.67	Angostura Holdings Limited	24.75
Light & Power Holdings	1.51	Seprod	5.16	Unilever Caribbean Limited	23.66

Berger Paints Trinidad Limited was the major declining company, which fell by 4.4%.

Interest Rates

United States of America

During the quarter, the Federal Reserve cut interest rates by 25 basis points to 2.00%, as markets continued to struggle in the face of lingering concerns over the credit crisis and uncertainty regarding the likely course of the economy.

United Kingdom

Following a cut in the previous quarter, the Bank of England's (BoE) Monetary Policy Committee kept its benchmark interest rate on hold at 5%. Key to the BoE's rate decision was the fact that inflation reached 3.8% in June, well above the inflation target of 2%, and the highest since the BoE was granted independence in 1997. The sharp rise in inflation prevented policymakers from switching to a more accommodative policy stance in the face of strong evidence of a flagging economy.

Canada

The Bank of Canada (BoC) was also faced with the task of balancing the risks of slower economic growth with surging inflation. During the quarter, the economy performed consistent with expectations and the risks remained balanced, which allowed the BoC to maintain its benchmark policy rate - the overnight rate - at 3%.

Eurozone

During the quarter, the European Central Bank (ECB) kept its benchmark interest rates steady at 4.0%, despite increasing pressure to increase rates to fight the rise in inflation and curb food and fuel prices, as key economic indicators highlighted a slowing European economy.

Emerging Markets

Bond Markets

Returns on emerging market bonds fell slightly relative to the first quarter of 2008, as reflected in a decline in the emerging market bond index (EMBI) as at June 30, 2008. The decline on emerging bond yields came as improved credit ratings in a number of Latin American

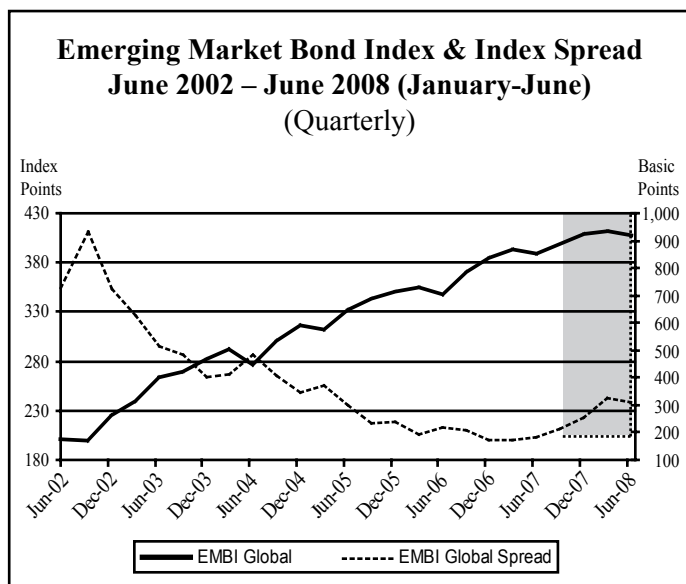
economies signalled lower risk associated with some of these investments, contributing to a contraction in the yield spread relative to Treasuries.

Equity Markets

Asian stock markets continued the weak performance observed during the first quarter of the year, some tumbling by double-digits over the review period, as risk-averse investors shied away from some emerging market equities. While a number of Latin American stocks also took a beating, strong outturns in major markets overshadowed these declines, resulting in a reversal of the lacklustre performance of the region's equities markets during the first quarter.

Following a 34.0% drop in the first three months of 2008, China's Shanghai Composite index contracted by a further 21.2%. The decline was the largest second-quarter loss among the Asian markets and primarily reflected galloping inflation, which stoked investor fears that interest rates would begin to trend upward. Inflation concerns also contributed to the 14.0% fall in India's SENSEX for the April – June 2008 period, pushing that index's total year-to-date decline to 36.0%. During the review period, record international crude oil prices contributed to India's highest inflation in over a decade, prompting a multi-billion dollar sell-off of Indian stocks. Taiwan's TWSE and the Philippine's PCOMP indexes recorded the third and fourth largest percentage declines for the quarter, also reflecting investor fears of slower growth and sustained price increases.

In Latin America, the Merval was down by 15.6% for the quarter, driven mainly by speculation that pre-election uncertainty, coupled with lower commodity prices, would slow economic growth and company earnings. The Bovespa rose by 6.6% during the review period, in addition to the 1.1% gain recorded in the first quarter, as a continued strong export performance and the Government's recommitment to meeting its debt obligations led two major rating agencies – S&P and Fitch – to upgrade Brazil's credit rating, resulting in an influx of investment.



Emerging Market Equity Indices (Quarterly)

Country/Region	Currency	Jun-05	Sep-05	% Ch
Argentina	Merval	1,524.62	1,287.02	-15.6
Brazil	Bovespa	60,968.07	65,017.58	6.6
Chile	IPSA	2,902.02	2,999.90	3.4
Mexico	IPC	30,912.99	29,395.49	-4.9
Venezuela	Caracas	35,056.37	37,259.15	6.3
Latin America		4,316.14	4,751.47	10.1
China	Shanghai	3,472.71	2,736.10	-21.2
Hong Kong	Hang Seng	22,849.20	22,102.01	-3.3
India	Mumbai	15,644.44	13,461.60	-14.0
Indonesia	Jakarta	2,447.30	2,349.11	-4.0
Malaysia	Kuala Lumpur	1,247.52	1,186.57	-4.9
Philippines	PSE	2,984.67	2,459.98	-17.6
Singapore	Straits Times	3,007.36	2,947.54	-2.0
South Korea	Seoul	1,703.99	1,674.92	-1.7
Thailand	SET	817.03	768.59	-5.9
Taiwan	Weighted	8,572.59	7,523.54	-12.2
Asia		439.01	396.65	-9.6

Source: Bloomberg Service

Emerging Market Currencies

(Quarterly) Country/Region	Currency	Mar-08	Jun-08	% Change
Argentina	Peso	3.17	3.03	4.5
Brazil	Real	1.75	1.60	8.5
Chile	Peso	435.24	527.89	-21.3
Mexico	Peso	10.64	10.31	3.1
Venezuela	Bolivar	2,147.30	2,147.30	0.0
China	Yuan	7.01	6.85	2.2
Hong Kong	Dollar	7.78	7.80	-0.2
India	Rupee	40.12	43.04	-7.3
Indonesia	Rupiah	9,229.00	9,228.00	0.0
Malaysia	Ringitt	3.19	3.27	-2.3
Philippines	Peso	41.74	44.96	-7.7
Singapore	Dollar	1.38	1.36	1.2
South Korea	Won	990.30	1,046.05	-5.6
Thailand	Baht	31.44	33.44	-6.4
Taiwan	Dollar	30.38	30.35	0.1

Source: Bloomberg Service

Currency Markets

The performance of emerging market currencies was mixed during the second quarter of 2008, with the currencies of China, Argentina, Brazil and Mexico all appreciating, while Chile, India, Thailand and South Korea all saw the value of their respective currencies decline.

Demand for Brazilian assets and persistently strong export demand pushed the value of the Real up 8.5%, on top of the 1.1% gain recorded between January and March 2008. Similarly, the Mexican peso appreciated 3.1% against the US dollar, as speculation remained high that the spread between Mexican and US lending rates would widen, attracting investors seeking high-yield returns.

On the other hand, the value of the Chilean peso plummeted by 21.3% on increasing concerns that the economy is slowing, leading to a substantial reduction in the demand for Chile's financial assets. The decline in the international price of copper since the end of the first quarter of 2008, further depressed the currency of Chile, which is the world's largest copper exporter.

As demand for Taiwan's assets declined substantially, the appreciation of the Taiwanese dollar stalled at 0.1%, compared to the 6.3% recorded in the first quarter. While demand for Chinese assets abated, demand for that country's goods exports remained buoyant, leading to a modest 2.2% appreciation of the Yuan. The Yuan also continued to benefit from moves by the Chinese authorities to allow the quasi-fixed currency to fluctuate within a 0.5% band against the US dollar.

The 7.3% depreciation of the Indian Rupee for the April to June 2008 period was that currency's worst quarterly performance in ten years. The declining Rupee reflected a substantial decline in international investors' holdings of Rupee-denominated assets, as well as higher fuel-related import costs that contributed to a significant widening of the current account deficit.

During the second quarter of 2008, the Thai Baht, Philippine Peso and South Korean Won all depreciated, primarily related to rising inflation and fears that higher prices would adversely affect corporate profits and economic growth in these countries



CARICOM Trade Policy Response To The Rising Cost Of Living: Focus On The Common External Tariff (CET)

In recent times soaring international commodity prices, especially for food and oil, have contributed to a virtually worldwide surge in inflation. In an effort to counteract the effects of these skyrocketing prices, many authorities — particularly in emerging economies, where the inflation problem has been more acute — have relied heavily on various fiscal/trade policy adjustments. These include changes to existing import and export taxes as well as the introduction of new tax regimes. Similarly, Caribbean Community (CARICOM) countries have sought to combat the surge in inflation through modifications to the existing Common External Tariff (CET) in addition to other trade and non-trade measures.

After reviewing recent inflation trends and the international trade policy response, this article traces the regional response from conceptualisation to implementation and then focuses on the CET in terms of its historical evolution and current structure, as well as the expected operation of the recently announced adjustment. It concludes with a look at the potential impact of the CET adjustment on inflation, along with some broader considerations related to the region’s trade and integration agenda.

International Inflation and Trade Policy Responses

Global inflation has been fuelled — inter alia — by unprecedented high and rising oil prices and the resulting increase in freighting costs; spiralling food costs occasioned by the shift in agricultural production from food to bio-fuels, as well as unfavourable weather patterns and natural disasters that have disrupted food supplies; increasing demand for both oil and food by high-growth emerging economies such as China and India; and a sharp depreciation of the US dollar.

Consequently, during 2008 inflation in all of the world’s advanced economies has been well above the rates recorded during the corresponding period of 2007, as rising

commodity import costs have pushed domestic producer and consumer price indices higher. However, the inflation problem has been worse in most emerging economies, as the impacts of greater import costs are magnified by sustained high domestic demand, contributing to inflation rates approaching double-digits. In response, many of these countries have implemented a number of unique and targeted trade initiatives, all aimed at stemming the rising tide of inflation, particularly with respect to food prices.

In its report on policy responses to the increase in food prices¹, the World Bank indicates that of 58 countries surveyed, 41% had reduced import duties and value added taxes (VAT) on food and grain in an effort to offset rising international prices (See Table 2). For example, countries such as India, Indonesia, Turkey, Peru, Mongolia, South Korea and Brazil all either eliminated or significantly reduced import duties on various food and grain products. Additionally, countries such as India and South Korea sought to reduce producer price inflation by scaling back taxes on non-food commodities, including fuel.

Table 1: Inflation Combating Measures

Inflation Combating Measure	Approximate % of 58 Countries
Reduced food grain taxes	41
Increase food grain stocks	24
Export restrictions	20
Price controls/ consumer subsidies	31
None	17

Source: World Bank Survey

For developing countries, the major concern with the tariff reduction approach is the impact on fiscal revenues, particularly in a period of sluggish economic growth, which may require higher levels of government intervention.

¹ World Bank (2008)

India's case is particularly relevant in this regard, as that country's reductions in fuel import duties reduced fiscal revenues by over US\$ 5 billion, contributing to a widening fiscal deficit that resulted in a further softening of investor confidence in the Indian economy.

Meanwhile, aside from imported inflation, many countries are also focused on containing the inflationary impact of rising international commodity prices on the costs of domestically produced goods. The World Bank indicates that 20% of the countries surveyed — including China, India, Argentina, Pakistan and Russia — adopted export restrictions on products such as fertilizers, metals, soybean, sunflower and wheat, intended to make these exports less competitive and, by extension, keep domestic supply high and reduce inflation. However, the World Bank suggests that these export restrictions have had the opposite effect by reducing supply, prompting distress-buying by importers at astronomical prices and consequently further contributing to the rise in world prices.

Regional Inflation and Trade Policy Responses

The hike in international oil and food prices has been a major concern for the small, import-dependent, price-taking economies of the region, as it has pushed up their import costs, weakening their balance of payments positions and filtering through to domestic prices. These external price pressures have also been exacerbated to some extent by internal considerations such as insufficient regional integration; for example, inadequate transportation links within the region impact on the availability and price of goods and services.

While it is recognized that regional inflation is largely externally driven, the Twelfth Special Meeting of the Conference of Heads of Government of CARICOM was convened in Guyana on December 7, 2007 to discuss what, if anything, could be done at the regional level about the rising cost of living in member states. Coming out of this meeting a statement was issued which outlined a set of measures designed to help address the problem.²

In this regard, it was decided that the CET was the most appropriate instrument for intervention at the regional level. A technical team was therefore established and charged with reviewing a set of commodities which have significant weight in regional price indices, which are not significantly produced (or do not have a close substitute available) regionally, and which would attract the CET. The Council for Trade and Economic Development (COTED) would then make a decision on the reduction or removal of the CET from these commodities as early as January 31, 2008.

Furthermore, in order to ensure the adequate supply and distribution of food intra-regionally, the Heads of Government established an Expert CARICOM Team on Sanitary and Phyto-sanitary Measures (SPS) to undertake a rapid assessment of the readiness of Member States to export selected food items and the preparedness of Member States to import those items from within the Region.

In terms of non-trade measures, member states were also urged to: take advantage of an offer by the Government of Guyana of access to land for the pursuit of agricultural production, including agro-processing; make efforts to increase the regional content in food consumption, particularly by branding and marketing Caribbean products; proceed with the transformation of agriculture and the Jagdeo Initiative³ in particular; intensify and build on work already being undertaken in the area of renewable energy; accelerate the work already

mandated in the area of regional transportation; and step up social interventions targeting the most vulnerable groups, including children, to mitigate the negative impact of high food prices.

² CARICOM Secretariat Press release 289/2007 (December 7, 2007)

³ President Bharrat Jagdeo of Guyana, CARICOM Head with lead responsibility for agriculture, is spearheading a process titled the 'Jagdeo Initiative'. The Initiative seeks to build on past efforts to create an enabling economic and business environment for agribusiness, competitive and sustainable agriculture and rural development. [From <http://www.carapn.net> Caribbean Regional Agricultural Policy Network website]

In addition, the Heads of Government noted the importance of including and engaging regional populations and stakeholders, particularly the private sector and other social partners, in the process of curtailing inflationary pressures. They also noted that information sharing among Member States is crucial to the process. In order to facilitate follow-up decisions and implementation of recommendations, further research and analysis on the issue of the rising cost of living and poverty in Member States was also mandated, to be accompanied by a major consumer public education campaign reminding the regional population to “shop smart, buy regional, eat healthy, conserve energy and save”.

With a view to fulfilling the Heads of Government’s mandate, a meeting of the Technical Team on the Rising Cost of Living was convened on Monday, January 21, 2008. The Team made proposals for the suspension of the CET on certain items, which were submitted to the 25th Meeting of the COTED.

However, it proved difficult to reach agreement on a common regional list at that meeting, according to the Secretary-General, His Excellency Edwin Carrington. He highlighted challenges such as the fact that the CET is a major revenue earner for many Member States, which means that any reduction in the CET would constitute a loss of revenue, as well as the high degree of homogeneity of regional production, with several countries producing the same or similar products for the regional market that require protection. The COTED therefore requested Member States of the Caribbean Community (CARICOM) to submit national lists of items on which they would be prepared to reduce or remove the CET.⁴

Subsequently, at its Twenty-fourth Special Meeting held in the Bahamas, March 7 - 8, 2008, the COTED approved the suspension of the CET on selected items and mandated Member States to put in place administrative procedures for the suspensions to take effect.⁵

Focus on the CET⁶

In order for a common market to function effectively, member states must not accord more favourable treatment to non-members than to other members. In addition, trade policy harmonization or coordination under a common market system means all the member countries must apply equal or at least similar treatment to imports from outside of the grouping.

Hence Article 31 of the Annex to the original 1973 Treaty of Chaguaramas establishing CARICOM provided for the implementation of the CET by the member states in respect of all commodities imported into the common market from non-regional countries. The CET was designed to be the primary instrument of CARICOM’s coordinated trade policy.

The initial date set for completing its implementation was August 1981, with a four-year extension for Montserrat. However, only Barbados, Guyana, Jamaica and Trinidad and Tobago managed to meet this deadline. Despite revised targets and substantial carve-outs, as well as special rates and phasing-in arrangements for some member states, subsequent versions were only partially implemented, which led the Conference of Heads of Government to order a review of the CET in 1992. The review led in turn to the adoption of a new harmonized tariff structure with phased implementation arrangements, forming the basis of the revised CET effective from 1993 and incorporated into the 2001 Revised Treaty of Chaguaramas.

⁵ CARICOM Secretariat Press release 59/2008 (13 March 2008)

⁶ The information on the CET provided in this section is taken from CARICOM Secretariat (2000) and CARICOM Secretariat (2005).

⁴ CARICOM Secretariat Press release 22/2008 (January 26, 2008)

In developing the new tariff structure, extra-regional imports were assigned rates according to four types of categorisation.

Products were first categorised as either agricultural or non-agricultural goods. Agricultural goods were provisionally assigned a special rate of 40 percent until such time as a study could be conducted on overall tariff levels. The study was completed in 2000 and indicated that the rate should remain at that level, in light of the ongoing subsidisation of agricultural products by the various source markets.

Non-agricultural goods were further categorised as either inputs into the production of other goods or final goods, with inputs attracting lower CET rates than final goods. An additional distinction was made between goods deemed to be competing with like CARICOM goods and those considered to be non-competing. Competing goods attract a higher rate than non-competing goods.

The fourth important categorisation with respect to the rate structure is the separation of CARICOM member

and ending January 1, 1998. Table 3 shows the various tariff rates assigned to the different categories and the expected period of application.

In addition to the tariff schedule, the revised CET incorporates a List of Conditional Duty Exemptions and an associated List of Items Ineligible for Duty Exemption. The duty exemptions may be applied to goods imported for certain approved purposes or by approved individuals or organizations. Member states are required only to notify the CARICOM Secretariat of the rate they will be applying. Where goods are on the list of ineligible items they would be subject to the CET rates.

In general, Article 83 of the Revised Treaty stipulates that the CET on any item may be altered or suspended by COTED, or by the Secretary-General on COTED's behalf, provided that the product imported from outside the region is not accorded more favourable treatment than similar products produced regionally.

Table 2: CET Tariff Structure and Implementation Schedule

Categories	Competing Rates				Non-Competing Rates		
	1.1.93 to 31.12.94	1.1.95 to 31.12.96	1.1.97 to 31.12.97	From 31.12.98	1.1.93 to 31.12.96	1.1.97 to 31.12.97	From 31.12.98
INPUTS							
- Primary	20%	15%	10%	10%	5%	5%	5%
- Intermediate	25%	20%	15%	15%	5%	5%	5%
- Capital	20%	15%	10%	10%	5%	5%	5%
FINAL GOODS	30% / 35%	25% / 30%	20% / 25%	20%	25%	20% / 25%	20%

Source: CARICOM Secretariat (2000)

Note: LDCs rates for non-competing inputs could vary within the 0%-5% range.

states into More Developed Countries (MDCs) and Less Developed Countries (LDCs). While all countries were free to decide which of two rates to apply to final goods, the LDCs were given additional flexibility to decide on the rate to be applied to non-competing inputs within a range of zero to five percent.

The implementation timetable called for lowering the previously applied CET rates to a 20 percent maximum in four phases over a five-year period, commencing January 1, 1993

The suspension of the Common External Tariff (CET) approved by COTED in March 2008 relates to three specific categories of items. In the first category, which includes cheddar cheese, oil, raisin bran/corn flakes and dried breakfast cereals, baby formula and baking powder, the CET would be generally suspended for two years ending March 4, 2010. In the second category, the suspension of the CET was granted for six months on juices for infant use. The third category consists of those items that attract a rate of zero to five or

five percent (i.e. non-competing inputs) or are on the List of Conditional Duty Exemptions. The items in category three include milk, chicken, beef, lamb, onions, oatmeal, beans and potatoes, as well as ceramic sinks and tiles.

Future Implications

Amid projections of continued high international commodity prices in the short-term, primarily for food (Table 1), and uncertainty about the future trajectory of oil prices, the CET suspension and its impacts on regional economies will be critical.

The items in the three categories identified are mostly dietary staples and lower duties on these products should help to temper the rise in the cost of living in the region, particularly in the short-run. However, the overall longer-term impact is likely to be limited, since it is widely acknowledged that the main drivers of regional inflation are external. Therefore, as indicated by the Eastern

efficiency in regional transportation. These initiatives are aimed at mitigating the scale diseconomies and other supply-side and structural issues affecting regional economies and building their resistance to the oil and food price shocks currently buffeting the international economy.

Some analysts posit that if there is an upside to these global inflationary pressures it is that the response in terms of tariff reductions could help to further the cause of trade liberalization. However, thus far there has not been a concomitant urgency to lock in these lower tariffs at the multilateral level, with the current Doha round of WTO negotiations still stalled despite efforts to clinch a deal in July, the latest in a series of missed deadlines. Nevertheless, from a regional perspective, perhaps the need to come together to fight inflation and other externally induced problems may be catalytic in driving forward the integration process, which has seen its share of delays and setbacks.

Table 3. Index of Projected Real Food Crop Prices*

Commodity	2007	2008	2009	2010	2015
Maize	141	179	186	176	155
Wheat	157	219	211	204	157
Rice	132	201	207	213	192
Soybeans	121	156	150	144	127
Soybean oil	138	170	162	153	119
Sugar	135	169	180	190	185

*(2004=100)

Source: World Bank (2008)

Caribbean Central Bank (ECCB) Monetary Council in its recommendations to Eastern Caribbean States⁷, optimal interventions would have to be targeted at enhancing the economies' resilience in the face of exogenous shocks.

An awareness of this reality at the CARICOM level is evident from the references to more medium- and long-term initiatives such as production integration in regional agriculture, regional renewable energy initiatives and improved

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⁷Communiqué of the 61st Meeting of the Monetary Council of the ECCB, St. Kitts and Nevis, February 8, 2008.



Capital Ideas Evolving by Peter L. Bernstein A Review by Sasha Mapp*

Introduction

Modern ideas concerning finance have transformed the nature of financial markets, particularly the use of investment strategies, the development of unique financial instruments and the modelling of uncertainty in investment decisions. Peter Bernstein, in his book entitled *Capital Ideas Evolving*, articulates these revolutionary changes while explaining the link between financial theory and practice.

This book expands on Bernstein's previous publication, *Capital Ideas: The Improbable Origins of Modern Wall Street* (published in 1992), which focused on the theoretical aspects of financial markets, explaining how the implementation of key financial theories has resulted in profitable portfolio management. Given its focus on theoretical developments, the book is of limited utility to empirical researchers. Furthermore, the language used is extremely technical, thereby restricting the target audience to mainly investors, educators and finance students. Nonetheless, the book is useful since it emphasises the important role financial institutions play in making markets more efficient as well as the significance of conducting further research on the inter-relationships of market behaviour.

The book consists of sixteen chapters, subdivided into four parts, and mainly reports the views expressed during interviews conducted by Bernstein with key financial pioneers.¹ It begins by discussing the long-standing debate between the theories expressed in *Capital Ideas*², particularly the efficient market hypothesis

and Behavioural Finance.³ Part II and III reflect Bernstein's interviews with key financial theorists and practitioners. These sections discuss the current theoretical views on the functioning of financial markets and also describe how the development and implementation of investment strategies, built on the fundamentals of the theories of Capital Ideas, have led to successful portfolio management. It is important to note that although the theoretical views presented in these sections vary significantly, they all seek to maximise market returns. Part IV gives Bernstein's concluding remarks.

Behavioural Finance vs. Capital Ideas: The Theoretical Views

Uncertainty and Risk: The Theories of Capital Ideas

Capital Ideas created a paradigm shift in the way investors thought about the nature of financial markets, the theory of investing and the role uncertainty played in investment decisions. The theories of Capital Ideas are built upon three key notions: (1) risk is at the core of all investment decisions, (2) diversification is a vital component in investing and (3) markets are hard to beat.

Bernstein defined risk as uncertainty about the decisions human beings will make and about how to respond to such decisions and therefore advocates that risk management through Modern Finance⁴ is key to the achievement of excess returns. Bernstein also supports the notion of managing risk via portfolio diversification.

However, the theories of Capital Ideas were also built upon the fundamentals of rational expectations. For this reason, behavioural theorists disregard the assertions made by the theories of Capital Ideas.

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¹ Bernstein interviewees included: Paul Samuelson, Robert Merton, Andrew Lo, Robert Shiller, Bill Sharpe, Harry Markowitz and Myron Scholes.

² Capital Ideas refers to the theoretical structure of modern finance developed between 1952-1973, namely, Harry Markowitz's work on portfolio selection, Franco Modigliani's and Merton Miller's views about corporate finance and the behaviour of markets, the Sharpe-Treynor-Mossin-Lintner Capital Asset Pricing Model, Eugene Fama's Efficient Market Hypothesis and Fischer.

Black, Myron Scholes and Robert Merton's options pricing model.

³ Kahneman and Tversky's research on human behaviour, which began in the mid 1960s, was later called the theory of Behavioural Finance.

⁴ The development of investment tools and strategies built upon the foundations of Capital Ideas have become known as Modern Finance.

Rational Expectations: The Theories of Behavioural Finance

Unlike the theories of Capital Ideas, Behavioural Finance examines the impact of uncertainty on decision-making by focusing on the study of human behaviour and purports that individuals are not rational beings and, as a result, investors often make decisions without considering the risk associated with each investment option.

The absence of rationality was founded on the premise of ‘failure of invariance’. Invariance is essentially the transitive law, which states that if A is preferred to B and B is preferred to C then, rational individuals should prefer A to C. However, based on various experiments conducted by Kahneman and Tversky, individuals do not exhibit such logic when making decisions. Such failures of invariance may be attributed to ‘framing’ – the passive acceptance of a given formulation without considering the risk involved in each respective option.

Richard Thaler also conducted experiments on the concept of rationality. He concluded that the probability that a person will gamble is positively related to one’s prosperity. In this regard, wealthy investors will often endure more risks because their capacity to absorb probable losses is greater. Thaler described such failures of invariance as ‘the house of money effect’.

Kahneman and Tversky emphasised that the theory of Behavioural Finance does not imply that people are incapable of reasoning but that they act intuitively when presented with information at any particular moment. Furthermore, Kahneman and Tversky thought that what the rational model considered as abnormal behaviour was in fact normal and that rational decision-making was the exception.

Arbitrage

The concept of arbitrage is a critical factor in the debate between Behavioural Finance and the theories of Capital Ideas, particularly the Efficient Market Hypothesis (EMH). Arbitrage states that investors can buy and sell an asset simultaneously with the expectation that the price of the asset being bought will rise whilst the price of the asset being sold will fall. This process can sometimes be a riskless transaction.

The EMH assumes that market prices fully reflect

all available information. Therefore, any disparities created in valuation due to the practice of arbitrage are often brief and, as a result, reduce the possibility of beating the market. The practice of arbitrage, especially riskless arbitrage, implies that the market is not efficient. However, behavioural theorists believe that opportunities for arbitrage do exist and investors will take advantage of mispricings caused by noise traders (investors trading with inaccurate information). In essence, behavioural theorists suggest that markets cannot be efficient because investors are not rational enough.

Theory in Practice: Views from key Players

The Theorists

Bernstein concluded that it is impossible to discern whether mispricings in the market place are caused by behavioural abnormalities or other forces such as distorted information from managers and analysts. He also reinforces the risky nature of financial management and believes that the contribution of Behavioural Finance has deepened our understanding of how investors reach decisions and how they interact under conditions of uncertainty. Additionally, he argues that Behavioural Finance has helped to strengthen the EMH by highlighting factors that impede market efficiency.

Robert Merton posits that the flaws in Behavioural Finance and the theories of Capital Ideas are similar in nature as they both assume an atomistic market of individuals. He also thinks that the disparity between theory and the real world is not extensive.

Similarly, Paul Samuelson believes that disparities between financial market theory and real world events will eventually mirror each other. Samuelson states that although markets may never be efficient, the positive and systematic correlations between risk and returns experienced gradually resemble those defined in the Capital Asset Pricing Model (CAPM). However, Samuelson does not believe that the contributions of the EMH should be dismissed, as it is often difficult to outperform the market.

Other critics of the theories of Capital Ideas include:

Andrew Lo, who disagrees with the notion of the EMH that markets follow a random walk,⁵ and Robert Shiller, who believes that all theories should have a realistic perspective of the complexity of human behaviour. Additionally, Shiller's research on volatility suggests that markets are not efficient because stock prices vary significantly. Therefore, if investors can predict the 'highs' and 'lows' of the market they will be able to outperform the market by gaining access to new information. However, one cannot assume that the predictions made by investors will be accurate. Hence, assertions made by the EMH that markets are hard to beat may still be valid. He concludes that both Behavioural Finance and the EMH are therefore equally important.

Despite their views on the theories of Capital Ideas and Behavioural Finance, Merton, Shiller and Lo all encourage greater intermediation by institutions on behalf of individuals. Merton believes that institutions can create a more efficient market environment by overcoming imperfections caused by individual traders. In addition, institutional competition will reduce the transaction cost associated with various market activities. He, however, cautions that institutions are not immune to behavioural features.

Bill Sharpe, Myron Scholes and Harry Markowitz also critique the theoretical concepts of the theories of Capital Ideas. Sharpe prefers the state-preference theory, developed by Kenneth Arrow and Gerard Debreu, to CAPM because the former gives the investor greater flexibility when considering the risk of an asset. Unlike CAPM, state-preference theory allows the investor to consider the risk of assets under a wider set of possible outcomes taking into account the probabilities that they may occur. However, CAPM only permits the investor to account for the risk associated with being in the market.

Investors seek to gain excess returns and may do so by either accessing information before it is reflected in market prices or by capitalising on mispricings after adjusting for risk. According to Scholes these practices are meaningless if the changes in the price of liquidity or the

price of risk transfer are not considered. He defines risk transfer as "a time series of asset holdings, moving assets or securities of risks from now into the future" (p.117) or the movement of excess inventory forward in time until new demanders enter the market.

In addition, although Markowitz launched the first theory of Capital Ideas in 1952 with his theory of portfolio selection, he is currently moving away from the neoclassical school of thought as evident by his research on new optimal investment strategies. These studies are being undertaken with his colleagues Bruce Jacobs and Kenneth Levey using a computer simulation to study how markets behave.

While the theoretical perspectives discussed above vary significantly in their underlying beliefs and assumptions, they all focus on gaining excess returns. In addition, these theories all aid in understanding how markets work and act as a catalyst for further research. Therefore, despite their fundamental differences, as mentioned by Bernstein, these theories actually complement each other. However, markets do not remain stagnant, and similarly, theoretical developments evolve and new investment strategies are discovered. In this regard, theorists will always have different modes of thought because of their distinct perceptions of market behaviour.

The Practitioners

Many institutions and theorists are expanding on the underlying fundamentals of the theories of Capital Ideas in search of new investment tools and strategies. Of these, several have been successful in their pursuit of excess returns through the implementation of various techniques ranging from 'portable alpha'⁶ to changes in portfolio composition.

CAPM states that beta (the return to systematic risk) and alpha (returns above/below beta) are uncorrelated sources of return. However, the implications of this notion were not immediately explored by investors. In 1986, Bill Gross examined this possibility by focussing on the simple separation of alpha and beta management. Barclays

⁵ Random walk is a term that describes the idea that market prices are random and unpredictable.

⁶ The term portable alpha refers to the technique developed by Bill Gross of including the alpha calculated from the bond portfolio equation within the stock portfolio function.

Global Investors and Pimco Investment Management of Newport Beach, California also exploited this concept in the formulation of their respective investment strategies.

Richard Grinold, in his capacity as Director of Research at Barclays Global Investors, used CAPM as the basis for separating alpha and beta by expanding on his previous research in Active Portfolio Management.

Conversely, ‘portable alpha’ was conceived differently under the direction of Bill Gross, CEO of Pimco Investment Management of Newport. Gross developed a strategy called StockPLUS that includes the alpha from the bond portfolio to the S & P 500 Index Fund. Subsequent to its implementation, this strategy generated consistent excess returns over the S & P 500 Index Fund since the late 1980s without increasing the company’s risk

Modern Finance was also enhanced by the contributions of David Swesen, Martin Leibowitz, Fischer Black and Bob Litterman, who focused on managing risk through precise portfolio composition.

Swesen based his portfolio investment decisions for the Yale Endowment Fund on the assumptions of the EMH. He believes that equities and equity-like investments are priced by the market to provide higher expected returns in the long run because such investments are riskier than bonds. Swesen also utilised Modern Portfolio Theory and quantitative analysis to shape strategies and to rationalise asset allocation when formulating his unique portfolio design.

Leibowitz focussed on assessing risk in a portfolio comprised of different asset classes. He combined real estate investment trusts with traditional asset classes of US stocks and bonds in an attempt to understand the fundamental impact of the risk of the new asset classes. Leibowitz determined the risk associated with this type of portfolio by calculating the comovement between new asset classes and US equities – a relationship he called “implicit beta effects”. His findings revealed that an increase in portfolio returns due to the inclusion of assets with returns higher than equities was not accompanied by a rise in portfolio risk.

Finally, Black and Litterman discovered an alternative to portfolio selection by combining simple mean/variance optimisation with Bayesian analysis.⁷ This new technique will allow investors greater flexibility in generation of all types of portfolios – whether ‘high’ or ‘low’ risk and/or with or without constraints.

Conclusion

Although the theoretical views presented in this book vary significantly, they are all linked by their pursuit of one common objective - maximising market returns. Additionally, regardless of the acceptance of the EMH that prices reflect all available information, the untiring and continuous efforts to develop new investment strategies suggest that they all believe that markets are indeed hard to beat. Consequently, the concept of ‘portable alpha’ and alternatives to portfolio selection and risk management have been developed, implemented and are being documented to form part of the literature on the successful practice of financial theory.

Furthermore, despite the small nature of markets in the Caribbean relative to international markets, this book still provides many valuable insights that should not be ignored. First, we should encourage the establishment of institutional intermediaries acting on behalf of individual investors. Financial institutions not only aid in the process of making markets more efficient but also reduce transaction cost. Secondly, we cannot underestimate the importance of research, especially the study of how markets behave. Results from such investigations can be used to inform the adoption of existing investment strategies or the development of new techniques tailor-made for investing in the region.

As Barbados’ financial sector becomes further liberalised, its securities market will become more efficient due to an increase in market yields, information availability and freer cross border trading by market

⁷ Bayesian analysis is used to assess risk by assigning probabilities to uncertainties based upon the likelihood of their occurrence.

players. Consequently, the application of financial strategies and modelling techniques will play a dominant role as investors seek to gain excess market returns. In this regard,

Barbadians, especially local investors, will find it useful to acquaint themselves with the key financial concepts and techniques outlined in this book.