



The World Today

The International Energy Market

Professor Dennis J. Gayle

Executive Director, The UWI Graduate Institute of International Relations, University of the West Indies, St Augustine Campus

What is the regional and international context in which CARICOM governments are projecting energy costs, revenues and expenditures? Let us consider the budgetary and energy balances of the four CARICOM countries of Trinidad, Jamaica, Barbados and Guyana, in US dollars, while recalling that the oil-importing OECS currently includes some of the world's most heavily indebted developing states. Trinidad and Tobago plans to implement a Heritage and Stabilization Fund, and to peg its budget to average oil prices over a decade. Trinidad, which produces approximately 150,000 barrels of oil per day (bbl/d) and consumes some 29,000 bbl/d (19.33%), has proven natural gas reserves in excess of 733 billion cubic meters, and had an external public debt amounting to 43% of GDP last year. Assuming reduced oil and gas prices, projected government revenue amounts to \$5.5 billion in fiscal 2007, and expenditure to \$6.02 billion, for a deficit of \$0.52 billion.

Jamaica consumes 69,000 bbl/d, and had amassed an external public debt of 128.7% of GDP by 2005, when Government revenue totaled \$2.8 billion and expenditure \$3.21 billion, for a deficit of \$0.41 billion. Barbados consumes some 10,000 bbl/d, and produces about 1,000 bbl/d of oil, while producing and consuming 29.17 million cubic meters of natural gas per year. The Government recorded an external public debt approximating 23% in 2005, and generated revenue of \$847 million compared with expenditure of \$886 million in the recent representative year of 2000, for a deficit of \$39 million. Guyana consumed 11,300 bbl/d of oil in 2003, and generated government revenues of \$320.1 million, compared with expenditures of \$362.6 million in 2005, for a deficit of \$42.5 million. Georgetown's external public debt amounted to \$1.2 billion in 2002. To a significant extent, energy policy is regional policy. It is within this context that Venezuela presented its controversial PetroCaribe initiative, and that Barbados engaged Trinidad and Tobago in a yet incompletely settled dispute concerning maritime boundaries between the two countries.

When OPEC last met, in mid-September 2006, oil prices had fallen to their lowest level since March 2006, later slipping below \$60.00 per barrel by September 25th. Even so, oil cost more than it did when OPEC increased quotas to current levels, last year, and twice what it did three years ago. To be sure, oil prices usually decline each year, after the summer surge in gasoline consumption, and before increasing demand for heating oil in the winter, in North America and Europe especially. But seasonal swings in oil prices may be expanding, because of a global shortage of refining and storage capacity. Oil price predictions for 2007 range from over \$100 to less than \$50 per barrel, dependent

upon factors including supply uncertainties from Venezuela (3.08 million bbl/day), Iraq (2.1 million bbl/d) Iran (3.9 million bbl/d) and Nigeria (2.3 million bbl/d), and growing demand from Asia, especially China. The International Energy Agency estimates that OPEC's spare capacity amounts to 2 million barrels per day at most, approximately 2% of world oil demand. At the same time, since share and commodity prices have begun moving together, rather than in opposite directions, the basis for a conservative view of future oil prices has recently increased.

If we consider the international energy market systematically, the main independent variables include the interdependent issues of gas and oil supply; prevailing attitudes towards energy conservation and environmental issues; new energy source development, such as solar, wind, methanol, and nuclear-generated power; the extent of new investment in oil exploration, drilling and refining; and the political economy of supply/demand security. For example, there are the resource nationalism cases of Russia's Gazprom restricting Ukrainian – and incidentally EU - gas supplies, while seeking increased prices; Venezuela's President Chavez wishing to increase sales to China and reduce sales to the USA; the nationalizations of President Morales in Bolivia, featuring hostilities between miners, and the increasingly limited availability of indigenous managerial and leadership skills in the oil and gas industry; and President Idriss Deby's confrontation with PETRONAS of Malaysia and the USA's Chevron in Chad.

An analysis of the international energy market suggests that national energy policies are actually obsolete, from a global cost-benefit perspective, but will continue to dominate, for the foreseeable future. For example, the European Union remains 50% dependent upon Russian gas, with Algeria and Norway constituting other external suppliers, and the EU's responses are driven by both internal economic and political imperatives. A summary review of oil demand in per capita terms can be instructive. For instance, the US demands 26 barrels of oil per capita per year; the EU demands 12 barrels of oil per capita per year; and China demands 2 barrels of oil per capita per year. In China, coal mining still supplies 70% of energy demand, but Beijing intends to increase dependence upon nuclear power from 5% to 15% of total energy consumed. Meanwhile in India, the middle class continues to grow rapidly, fuelling increased demand for private transportation, and for nuclear power generation. There are indications that the European Union is also considering increased nuclear energy generation, given its sense of energy dependence. Meanwhile, the challenges of nuclear waste storage and environment movement protest are especially acute in the USA.

From an OPEC perspective, there continues to be insufficient investment in oil refining, given insecurities concerning demand – yet new oilfield discoveries outstrip demand every year. In the light of oil price declines by 23% since July 14, 2006, OPEC reportedly plans to remove 1 million bbl/d of crude from the market, reducing official total output to 27 million bbl/d, an event that would require renegotiated quotas.

There are several interesting developments in the area of alternatives to oil and gas. The cost-effectiveness of solar energy has been increasing. Meanwhile, the efficiency of

geothermal energy production has also been expanding, using standardized plant designs and a refrigerant with a lower boiling point than water. The international energy market within which CARICOM governments project energy costs, revenues and expenditures, must be analyzed from multidisciplinary perspectives, with clear-eyed attention to the implications of monopolistic production, economic nationalism, skewed energy demand distribution, technological change, environmental impacts, sustainable economic growth and development, and national as well as regional security. *The UWI Graduate Institute of International Relations will host a lecture on "The Norwegian Oil Experience: Lesson and Implications for Latin America and the Caribbean" Monday 23 October 2-4 p.m.*