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POLICY BRIEF

Suggested Policy Responses to Oil Price Increases in the ECCU

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Suggested Policy Responses to Oil Price Increases in the ECCU

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This paper critically examines the gasoline pricing mechanisms currently being used by the member countries of the Eastern Caribbean Currency Union. It proposes a system that sends the correct signals to consumers with regard to internatioal oil prices, protects consumers from major swings in the price of the commodity and shields the fiscal authorities from revenue losses. The paper also discusses the merits of the Petro Caribe Oil Agreement in the context of the sub-regions's fiscal situation and persistently rising international oil prices.

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1.0 INTRODUCTION

Concerns have escalated over the recent hikes in oil prices and the likely effect of these on the ECCU member countries, which are highly dependent on oil imports. Most member governments have sought to shield their consumers from the full impact of rising oil prices by keeping domestic retail petroleum prices constant over long periods of time. However, in recent years, some of the governments have had to review their pricing mechanisms on account of the sharp and sustained rise in oil prices, resulting in lower tax revenues on petroleum products.

Throughout the economy, rising oil prices translate to increases in payments for imports, particularly for fuel-related products, in consumer price inflation as well as in production costs for companies. Higher oil prices have also contributed to a reduction in the real income of consumers. Given those conditions and the expectations in the international oil market, can existing policies of the member governments be sustained? What measures can the member governments institute to further minimise the adverse consequences of rising oil prices on the economies and on consumer welfare? This paper suggests some policy options that the ECCU member governments can consider in the short and medium to long term, to reduce the vulnerability of their economies to oil price shocks. The rest of the paper is organised as follows: section 2 discusses the magnitude of oil price shocks; section 3 outlines a framework for an effective oil pricing regime; section 4 presents an overview of the retail fuel price mechanism in the ECCU; section 5 examines the economic impact of the current oil pricing policy; section six discusses policy options for the ECCU; and section 7 concludes with recommendations.

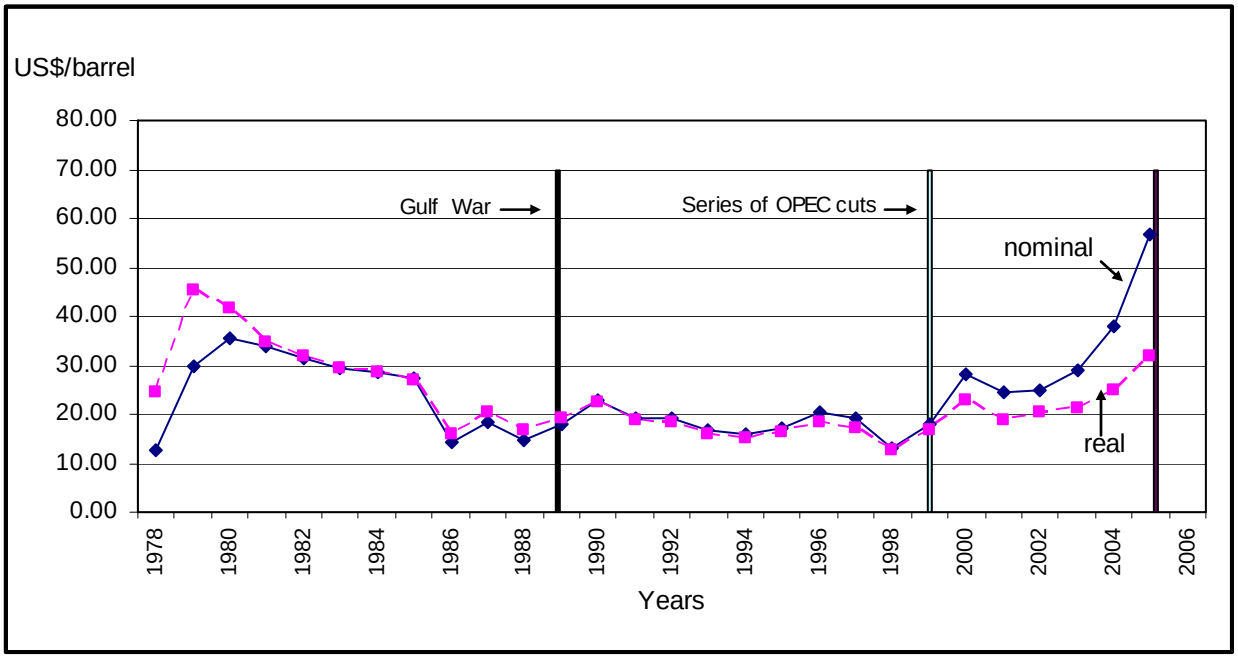
2.0 MAGNITUDE OF OIL PRICE SHOCKS

2.1 International Price of Oil

Based on data from the New York Mercantile Exchange (NYMEX), crude oil traded on the exchange hit US$70.85 per barrel on 29 August 2005, at the time the highest level since

trading began in 1983. Between January 2001 and August 2005 nominal oil prices more than doubled, rising by over 54 per cent in the year to end August 2005 (chart 1). The rise in crude oil prices can be explained by a confluence of factors, including limited and inadequate refinery capacity; rising demand from China, India and the USA; instability in the Middle East; disruptions in supply from Nigeria; and speculation in the oil market.

Chart 1: Average World Crude Oil Prices over the Period 1978 to 2005



Although nominal oil prices rose sharply between 2001 and 2005, real oil prices[1] as at end August 2005 were still below the 1979 level and had risen by an average of 8.3 per cent per year over the study period. As at the time of writing, energy futures traded on the NYMEX solidified expectations that high oil prices would persist in the short to medium term, representing a shift in world oil prices. Based on NYMEX figures at the time, crude futures traded up to a year in advance of delivery were being priced in excess of US$60.00 per barrel.

[1] Real oil prices are calculated by deflating world average petroleum spot prices by the energy CPI for US urban consumers. The base period for the CPI is 1982-1984.

3.0 FRAMEWORK FOR AN EFFECTIVE DOMESTIC OIL PRICING REGIME

There are five basic principles to which an effective domestic oil-pricing regime ought to adhere. These are as follows:

3.1 It should signal the relative scarcity of oil and, therefore, promote conservation and efficiency.

Price movements, other things equal, signal the relative scarcity of resources. An increase in the price of oil should encourage consumers to alter their behaviour as it relates to energy consumption.

3.2 It should shield the public fiscal accounts from automatic deficits.

Domestic oil pricing regimes that generate persistent fiscal deficits would contribute to unsustainable fiscal outcomes. Government's fiscal policy in respect of fuel ought to at least be deficit neutral, but must also contribute to other goals such as conservation and investment in alternative energy sources and social protection.

3.3. It ought to avoid the transmission of excessive volatility to domestic economic agents.

Excessive volatility of international oil prices feeding into domestic consumption and production functions would convey false signals that can have an adverse impact on decision-making. Such a mechanism, ideally, ought to be forward looking and aim to communicate medium to long term price trends to domestic economic agents.

3.4 It must be transparent, credible and therefore predictable.

Economic agents make decisions based on their expectations, which are a function of their beliefs and available information. To anchor expectations, the policy authorities ought to make available their policy reaction function in respect of oil prices.

3.5 It must be easy to administer and manage

The transactions cost of administering the policy framework is a key issue to the success of policy. The system must be administratively feasible and cost efficient.

4.0 Overview of the Retail Fuel Price Mechanisms in the ECCU

4.1 Taxonomy of Pricing Regimes in the ECCU

Table 1 in the appendix shows the gasoline pricing mechanisms in place in the member countries, classified under the following three broad categories, based on the frequency with which they have adjusted their retail gasoline prices over the period 2000 to 2005:

- A relatively fixed system, whereby countries adjust retail prices on average once per year. This system is in place in Antigua and Barbuda, Saint Lucia and St Vincent and the Grenadines.
- A partial pass-through system, whereby countries allow their retail prices to change as many as five times per year. Anguilla, Dominica and Grenada have such a system.
- A full pass-through system whereby countries adjust retail prices with every shipment of petroleum products – six or more times per year. To date, Montserrat and St. Kitts and Nevis apply this system.

4.2 Calculation of the retail Price of Petroleum Products

The member countries use the same basic formula to calculate retail prices for petroleum products (gasoline, diesel, kerosene). The reference price of petroleum imports is based on quotations by oil companies – the mean Caribbean postings system established in the 1950s[2]. However, this system does not reflect competitive international spot market prices. A simplified version of the retail petroleum price calculation is presented in Box 1.

[2] Features of the mean Caribbean postings system include:
1) It dates back to a period when most of the oil trading was done within major oil companies;
2) Prices represent an offer to sell from a refinery or major terminal source;
3) Prices are not generated in an open, competitive market;
4) Prices thus obtained are used by major oil companies for inter-affiliate transfer pricing.

Box 1: Stylised Calculation of the Retail Price per Gallon of Petroleum		
Calculation base:		F.O.B. Value of Imports
Plus:		Freight and Insurance
Equal =	*C.I.F.*	*Value of Imports*
Plus:		General Consumption Tax
Plus:		Customs Service Charge
Plus:		Petrol Levy
Equal=		Landed Cost
Plus:		Wholesale Margin
Plus:		Retail Margin
Equal =	Retail Price	

It should be noted that for the majority of the ECCU member countries the general consumption tax and the customs service charge are fixed percentages of the c.i.f price, while the wholesale and retail margins are fixed absolute amounts per gallon agreed upon by the respective governments and the various oil companies. In practice, however, the general consumption tax is calculated as a residual in three of the ECCU member countries namely: Antigua and Barbuda, Saint Lucia and St. Vincent and the Grenadines. In other words, for those countries, the consumption tax is arrived at by deducting from the retail price the following: the c.i.f. price, the customs service charge, the wholesale and retail margins and the inland transportation costs.

4.3 Drawbacks of the oil pricing regimes

- They are not transparent;
- They are not predictable;
- They do not sufficiently signal the relative scarcity of oil to the domestic population;
- They have resulted in revenue losses and debt accumulation in some countries. In periods of depressed international spot prices, windfall revenues accrue to governments. However, future expenditure commitments are often made on the strength of these windfalls; and
- They are based on the mean Caribbean postings price index for oil, which is often higher than that of the major international benchmarks such as US Gulf

Coast (USGC) prices. This has resulted in higher import prices for motor gasoline (by about US$0.05 /gallon) and for diesel and kerosene (by approximately US$0.03/gallon) relative to USGC prices.

4.4 Strengths of the ECCU oil pricing regimes

- They have to some extent reduced the volatility of oil prices to domestic economic agents. This has helped to stabilise the real incomes of households as well as the profit margins of businesses;
- They are simple to administer and adjust according to market circumstances.

5.0 MACROECONOMIC IMPACT OF OIL PRICE INCREASES

The following sub-sections analyse the impact of rising oil prices on governments' fiscal accounts, real GDP, external current account and consumer prices.

5.1 Fiscal Impact of Current Oil Price Regimes

The magnitude of the impact on the fiscal accounts of the individual member countries would depend on the level and frequency of adjustments to retail fuel prices by the government. The smaller the increase passed on by government, the greater the financial burden it has to bear. For the ECCU, the rapidly rising oil prices have led to a situation where consumption taxes collected on gasoline fell to under $1.00 per gallon as at end August 2005 for all the member countries except Antigua and Barbuda[2], Dominica and St. Lucia[3] (table 4). This compares with consumption tax levels in excess of $2.00 per gallon in all the member territories at the beginning of January 2000.

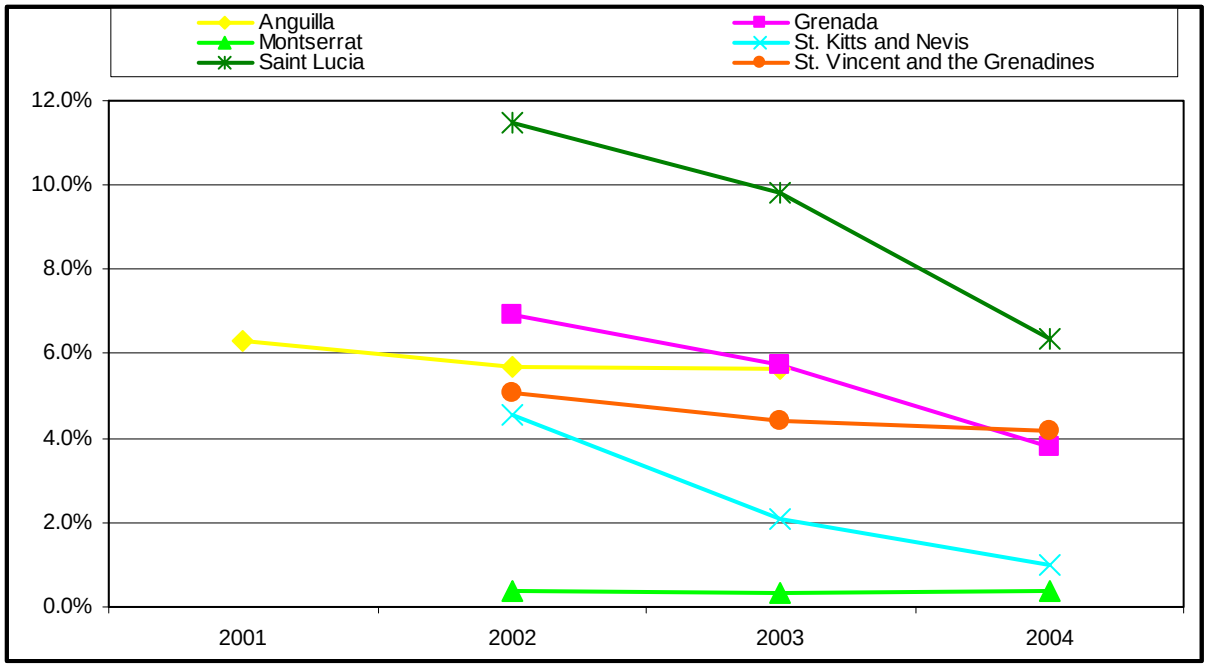
Another method for assessing the impact on the fiscal account is to express the gasoline consumption tax revenues as a percentage of the recurrent tax revenues of government and track the ratio over time. This is illustrated in chart two which shows a deterioration in the

[2] On 8 August 2005, Antigua and Barbuda's gasoline consumption tax rose above the EC$1.00 per gallon mark due to an increase of EC$1.00 to EC$9.30 per gallon in the retail price.

[3] St Lucia's retail gasoline price was increased by EC$1.00 to EC$9.50 per gallon on 24 August 2005, restoring the consumption taxe to above the EC$1.00 per gallon mark.

ratio's performance for all governments over the period 2002 to 2004 (actual data for Antigua and Barbuda and Dominica were not available at time of writing). The largest declines were observed for Saint Lucia and St. Kitts and Nevis whose ratios fell by 5.2 and 3.6 percentage points respectively over the period.

Chart 2: Gasoline Consumption Tax as a per cent of Current Tax Revenue over the Period 2001 to 2004



Source: ECCB and Ministries of Finance

Revenue from consumption taxes on gasoline (actual data available for Antigua and Barbuda, Dominica, Montserrat, St Lucia and St Vincent and the Grenadines) is estimated to have decreased substantially in the member countries in the period 2002 to 2005 (charts 3 to 10 in the Appendix). The charts show that Grenada experienced the largest decrease in consumption tax revenues, as gasoline price increases were infrequent and the price per gallon was the lowest in the ECCU, at $7.50. Based on first quarter comparisons, receipts from consumption tax on gasoline by the government of Grenada in 2005 were 56.7 per cent below the level in

2004, and 76.6 per cent lower than in 2002. In Dominica, where frequent adjustments were made, revenue collected in the first quarter 2005 was 17.1 per cent below the level in the corresponding period in 2004, but 11.5 per cent above the amount in the same period of 2003.

Data for Antigua and Barbuda (chart 4) show the tax gap that resulted from the combination of rising petroleum prices and the lack of appropriate adjustment to domestic prices. The tax fall-off was calculated by comparing actual gasoline consumption tax receipts with the targetted tax floor of EC$2.43 per gallon (earmarked for debt servicing). Based on the chart, the government of Antigua and Barbuda lost approximately EC$1.5m in gasoline consumption tax receipts in the second quarter of 2004. This was followed by losses of EC$2.0m and EC$2.1m in the third and fourth quarters of 2004, respectively.

Despite the adjustments made over the period, the net result for the ECCU member countries has been a substantial fall in revenue from consumption tax. This situation is unsustainable in the medium to long term, should oil prices remain high or increases persist, particularly in light of the high public sector debt to GDP ratio of 108.5 per cent for the ECCU at the end of 2004.

5.2 Impact on Real Gross Domestic Product (GDP)

The World Bank study on the the impact of higher oil prices on low income countries and on the poor estimated that a 10.0 per cent rise in oil prices lowers GDP by 0.6 per cent for countries with per capita incomes between US$900 and $9,000 (Bacon, 2005). The ECCU falls within this range, with a per capita income of US$4,594. Moreover, simulations by the Central Bank of Barbados suggest that a US$10.00 rise in crude prices could reduce GDP in Barbados by approximately 2 per cent or around US$50m, principally due to lower consumer spending (Annual Report 2004).

The data on real GDP for the ECCU as a whole showed that growth rates strengthened in 2003 and 2004 despite the increases in oil prices (table 5). This may be due in part to the strong performance of the tourism and construction sectors that are less energy intensive than other sectors and which contribute significantly to total output. In addition, consumers have been shielded from the full effects of rising oil prices, resulting in a smaller erosion of their

disposable income. However, should the price of oil continue to increase, future GDP performance could by be negatively impacted by worsening fiscal outturns, a reduction in consumer spending as disposable incomes decrease, a reduction in corporate profits due to increases in the price of inputs such as electricity and gas, and a reduction in the pace of credit expansion due to the greater perceived risk of lending by commercial banks. Additionally, if real wages are sticky downwards, rising oil prices may lead to increased unemployment, further affecting GDP growth.

5.3 Impact on ECCU's External Current Account

Imports of petroleum-related products into the ECCU (excluding Antigua and Barbuda, Grenada and Montserrat for which data are unavailable), were 36.6 per cent (EC$30.6m) higher in the first quarter of 2005 than in the corresponding period of 2004 (chart 11). Over the period 2000 to 2004, petroleum-related imports averaged EC$338.1m per year, with the largest year-on-year increase (EC$112.2m) occurring in 2004. Nearly all of the increase in 2004 was due to the rise in oil prices (approximately US$10.00 per barrel) as the change in the volume of imports was negligible (chart 12). The increase in petroleum import payments contributed to a widening of the ECCU'S merchandise trade deficit to $4,172.6m in 2004 from $3,836.5m in 2003 (table 6).

5.4 Impact on Consumer Prices

Higher oil prices generally translate to increases in the cost of inputs such as electricity and transportation, thereby contributing to a rise in the price of domestic goods and services. For the ECCU, energy prices enter directly into the calculation of the consumer price index (CPI) via the sub-indices "fuel and light" and "transport and communication". The available data indicate that movements in the "fuel and light" sub-index reflected the adjustments to the domestic retail price for fuel and the fuel surcharge by some countries, particularly Dominica. The spikes in the "transport and communications" sub-index were largely associated with increases in bus fares in some countries, particularly in St Kitts and Nevis. Over the study period, annual inflation across the ECCU rose from 2.4 per cent in 2001 to 4.1 per cent in 2005.

6.0 POLICY OPTIONS FOR THE ECCU

Within the context of the ECCU the following broad options are examined: (1) adjustment to the current oil pricing regimes; (ii) financing: the Petro-Caribe arrangement; and (iii) a combination of the two.

6.1 Adjustment – Greater Flexibility in the Oil Pricing Regimes

The oil price shock dictates that consumers adjust to the new realities of the international economic environment. A pricing mechanism that transmits this information to economic agents would promote quicker and smoother adjustment to the oil price shock.

6.1.1 A full Pass through

A full pass through regime would involve adjustments to the domestic price of petroleum products each time a shipment is received, using an international benchmard such as the U.S. Gulf Coast (USGC) spot price index as the base. The elements of the full pass-through regime are outlined in box 2 (Goyal, 2005). The following are the advantages and disadvantages of a such a pricing system:

Advantages:

- It facilitates the passage of information on the relative scarcity of oil to domestic economic agents so that they can make appropriate choices – it promotes conservation and efficiency in petroleum use among domestic economic agents.

- It shields the fiscal accounts from automatic deficit and debt accumulation. It may even contribute positively to the revenue stream and certainly reduce the volatility of revenues from petroleum to the public sector.

- It anchors private sector expectations and reduces uncertainty as to the government's policy reaction function in respect of an oil price shock.

Disadvantages

- It may result in increased domestic oil price volatility, which may adversely affect investment and consumption decisions.

Box 2: A suggested price structure for fuel products

All components of the retail price structure, together with the frequency at which each of the components would be changed, should be shown clearly, transparently, and published. Consider the following structure, based on proposals made by the World Bank for Dominica:[1]

(i) **Base import (f.o.b.) price:** a standard reference for the import price should be used that reflects the competitive world market price and is easily observable to all. Averages of the past three months could be used for the calculations. Two possible sources of information are the Caribbean Posted Prices and the U.S. Gulf Coast (USGC) spot prices. The Caribbean Posted Prices are unilateral postings of large companies and as such are not prices generated in an open, competitive market. By representing an important fraction of the world's transactions, USGC spot prices reflect true international market prices.[2,3]

(ii) **C.I.F. price:** adjustments for cargo size, freight, and in-transit loss would need to be made. The adjustments could be reviewed annually. In the case of Dominica, freight costs of EC$0.29 per imperial gallon are added to the base f.o.b. price of all imported fuel products. In-transit loss factors of 0.4 percent for gasoline, and 0.2 percent for kerosene and diesel are used.

(iii) **Customs service charge (CSC):** a service charge of 5 per cent of C.I.F. is added.

(iv) **General consumption tax:** a specific tax per imperial gallon could be considered, instead of, say, a 20 percent tax on C.I.F. plus CSC. A disadvantage of the 20 percent (ad valorem) tax is that it amplifies changes in world oil prices, increasing both the volatility of prices and of government revenue. A specific tax (based on quantity rather than on value) could ensure a fairly steady and predictable revenue stream. The specific tax could be reviewed annually, and adjusted automatically for general inflation.

(v) **Domestic storage and transportation costs:** terminalling and haulage costs would need to be added. Equal charges across fuel product type could be applied. Charges could be reviewed annually.

(vi) **Petrol levy:** a specific levy per imperial gallon could apply on gasoline, and could be reviewed annually.

(viii) **Retail price:** the retail price is determined by adding (ii), (iii), (iv), (v), (vi) and the wholesale and retail margins. This would become the price that would apply for a given month.

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[1] The World Bank, "Dominica: Petroleum Sector Reforms," July 28, 2003.

[2] Weekly information on base import prices could be obtained from Bloomberg's Oil Buyer's Guide (OBG) for the grade of fuel imported. The OBG could be a relatively cheap information source compared to other sources such as Standard and Poor's Platt's service and the Petroleum Intelligence Weekly.

[3] It is possible that depending on the octane specification of imported fuel, a small adjustment may be needed to the base import price.

Source: Rishi Goyal, IMF (2005)

6.1.2 Partial pass through

A partial pass through oil pricing regime would contain the same elements as the full pass through, except in this case the government would adjust its tax in-take to smooth out price increases over time. The following are the advantages and disadvantages:

Advantages

- It allows for domestic price smoothing;
- The international price increases are passed on to domestic economic agents, but with a built-in lag; and
- It is more politically feasible to institute than a full pass through.

Disadvantages:

- It may become complex depending on the smoothing horizon; and
- It may not shield the fiscal accounts from automatic deficit creating flows.

Governments can implement the following three types of partial pass through mechanisms:

1. *Trigger Rules*

According to Federico et al (2001), under the trigger rule mechanism, a price band is initially determined, e.g., plus or minus 10 per cent of the current spot price. Retail prices are adjusted only when spot prices reach a level outside the band. When this happens, the new spot price serves as the revised central point of the band. The rule can be described as one in which minor changes (within the band) are absorded by the government, but larger ones (outside the band) are passed on to consumers. It is, therefore, effective in shielding governments from having to bear large price shocks, but by doing so it exposes the private sector to these shocks.

2. *Max-Min Rules*

Like the trigger rule mechanism, max-min rules specify a price band around a central price. However, unlike trigger rules where the government absorbs any within-band changes in retail prices, max-min rules pass on these changes to consumers. Addionally, when prices exceed the upper limit of the band, the government absorbs the difference between the two prices by

paying out a subsidy. Alternatively, when retail prices fall below the lower limit of the band, the government taxes away the difference between the two prices and sets retail prices at the band's lower limit. The major drawback of max-min rules is that in conditions of persistently rising prices, governments would have to continually pay out subsidies if the price band is not adjusted to reflect the new realities (Federico et al. 2001).

3. Moving Averages

Under this mechanism, retail prices are based on a moving average of past spot prices, starting from the current month and moving backwards. The main feature of this mechanism is that it follows developments on the international market, thereby passing on price increases/decreases to consumers, albeit with a lag. The result is that it smoothes out transitory spikes in international oil prices, while at the same time reducing the fiscal risk that governments may have to bear as it relates to subsidies. The longer the time horizon used, the greater the smoothing effect, however, the greater the fiscal exposure of governments.

Based on the foregoing, the partial pass through using the moving average seems to be the most appropriate pricing mechanism for the ECCU. This should be used in conjunction with a specific consumption tax in order to stabilise governments' revenues from fuel imports, as well as send the correct market signal to consumers. Table 1 presents a basic example of the pricing mechanism using actual 2005 data for Antigua and Barbuda.

Table 1: An Illustration of the Moving Average Oil Pricing Formula (Using Antigua and Barbuda 2005 Data)

	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
1. F.O.B.	4.10	4.07	4.82	5.05	4.67	5.06	5.51	6.46	7.87	5.90	4.82	5.07
2. Freight & Insurance	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
3. In Transit Loss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. C.I.F.	4.25	4.22	4.97	5.20	4.82	5.21	5.66	6.61	8.02	6.05	4.97	5.22
5. Target Consumption Tax	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**
6. Customs Service Charge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Petrol Levy	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
8. WIOC Terminal Cost	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
9. Inland Transport	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
10. Wholesale Margin	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
11. Retail Margin	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
12. Full Pass-through Retail Price	**8.07**	**8.04**	**8.79**	**9.02**	**8.64**	**9.03**	**9.48**	**10.43**	**11.84**	**9.87**	**8.79**	**9.04**
13. Fuel Price Susidy				*-0.72*	*-0.02*	*-0.21*	*-0.58*	*-1.38*	*-2.19*	*0.71*	*1.92*	*1.13*
14. The Smoothed Retail Price				**8.30**	**8.62**	**8.82**	**8.90**	**9.05**	**9.65**	**10.58**	**10.71**	**10.17**
15. Actual Consumption Tax per gal.				**1.28**	**1.98**	**1.79**	**1.42**	**0.62**	**-0.19**	**2.71**	**3.92**	**3.13**
16. Fixed (minimum) consumption tax per gal.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

The elements of the moving average approach, as illustrated above, are as follows:

1. A target consumption tax of $2.0 per gallon is assumed: one dollar per gallon is the fixed, minimum tax on fuel; one dollar per gallon is used to smooth the retail price over time (line 5)[4].

2. Choose a period over which retail prices are to be averaged. In the illustration, a three-month moving average (January, February and March – line 12) is used to calculate the retail price level for April (line 14). It is assumed that the moving average method is introduced in April.

3. The price obtained from the three-month moving average would serve as the retail price for the current month – April.

4. The difference between the smoothed and the full pass through retail prices (line 14 minus line 12) is the extent of the retail price subsidy or tax smoothing.

5. The May fuel price would be calculated in the same way, except this time, the actual retail prices for February, March and April will be averaged, that is, January will be dropped.

6. All calculations along with re-pricing is to be done at every shipment.

[4] An important consideration is the optimal rate of taxation of petroleum products (this is still to be addressed). The determination of the actual level has to emerge as a tradeoff between concerns about competitiveness and the need to reflect the true social cost of dependency on imported petroleum as the main energy source.

6.2 Financing

6.2.1 The PETROCARIBE Oil Accord

The PETROCARIBE Accord, signed by individual Caricom countries with Venezuela, offers a financing option in respect of postponement of the necessary and required fiscal adjustment. In essence, the mechanism represents a recycling of surplus resources emergent from the high international oil prices to deficit oil-importing countries, allowing them to continue their development policies. With its relatively long maturity, a grace period and below-market interest rates, the PETROCARIBE Oil facility provides both liquidity – the long maturity and grace period components; and development finance – the low actual interest rate relative to the discount rate.

The critical elements of the agreement are:

- It facilitates the purchase of oil from Venezuela by signatories to the agreement.
- There is a sliding price mechanism based on pre-specified international oil price thresholds. For example, at US$50 per barrel of oil, the agreement requires oil-importing countries to pay 60 per cent of the price up front with the remainder financed through a loan from Venezuela.
- The agreement provides for loans from Venezuela with the following terms: 25 year maturity, 2 year grace and one per cent interest rate.
- A portion of the oil can be paid for with commodities and services – e.g., bananas.
- The agreement does not preclude the purchase of oil from other countries

6.2.1.1 *The Grant Element of the Borrowing Under This Arrangement*

An important consideration for highly indebted ECCU countries borrowing from Venezuela is the degree of concessionality on these loans. Table 6 provides some illustrative calculations for different conditions. For example, the grant element of a 20 year loan at 1 per cent and no grace period, with the recipient discounting repayments at 5 per cent, would be 27.9 per cent of the value of the loan. The same loan with a discount factor of 7 per cent yields a grant element of 35.2 per cent. Based on available information, no country in the ECCU is

currently able to secure loans elsewher with such a large grant element.[5] Individual countries within the ECCU would need to examine their own debt portfolios and calculate the grant element of current borrowing to determine if the terms offered by Venezuela are advantageous.

6.2.1.2 The Impact of the PETROCARIBE Accord on the Public Sector Debt Profile

The impact of the PETROCARIBE oil accord on the public sector debt profile depends on two elements: the restrictions on the use of these resources and the fiscal policy stance of the public sector. Given the existing unsustainable fiscal and debt position of most ECCU governments, an optimal policy response would be to repurchase existing high yielding debt with the proceeds of the Venezuela loan. Such a policy initiative, other things equal, can potentially reverse for the time being the extent of non-concessional debt in their debt portfolios. The other option is for the government to increase its expenditures on the basis of these new concessional resources. This policy stance would add to an already unsustainable fiscal and debt policy path, even though the resources may have a large grant element.

6.3 Other - Hedging

This is a technique that strategically uses financial instruments in the market to offset any adverse price movements. In the case of oil, the practice of buying futures contracts, which locks in the price of oil in the future, can be a useful strategy for the ECCU member countries. The downside risk, however, is that if the actual spot prices of the commodity clear the market at levels below the agreed-upon futures prices at the time of delivery, then the governments stand to lose much needed funds. In addition, the small economies of the ECCU may not have the institutional capacity to undertake and actively manage hedging instruments. However, this is a strategy that the region may want to consider as one grouping, thereby reducing transaction costs.

[5] The calculation of the precise grant element of these borrowings depends on the terms and conditions of the loans.

7.0 RECOMMENDATIONS

THE ECCU member countries are advised to consider the following:

1. Modifying the existing oil pricing regimes to a three-month moving average method, while ensuring that the five basic principles outlined in the efficient oil pricing regime framework are satisfied.
2. Securing the concessional funding available under the PETROCARIBE accord to facilitate the necessary fiscal and debt portfolio adjustments. Given that the source of the oil is from a non-CARICOM country, member countries may wish to seek derogation from the CARICOM common external tariff of 20 per cent on petroleum products.
3. Identifying administratively feasible mechanisms to implement a targeted social protection framework for highly vulnerable groups in each country.
4. Adopting international spot prices as the benchmark for the import price of oil.
5. Adopting a regional approach to negotiations with oil companies and distributors.
6. Adopting a regional approach towards the development of a feasible energy policy.
7. Launching an aggressive public education campaign on energy conservation and efficiency in order to reorient public thinking on the use of limited energy resources.
8. Integrating energy policies into a wider development policy mix that seeks to reduce the dependence on oil as an energy source, dimishes energy intensity, while spurring the growth of key sectors, protecting the poor and the vulnerable and safeguarding the environment.

While this paper has highlighted the benefits of adopting a partial pass through pricing regime for the ECCU member countriess, it should be noted that the important issue of instituting appropriate measures to mitigate the effects of high energy prices on the poor and vulnerable in society was not formally dealt with. This issue will be the subject of future research.

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APPENDIX I: Tables

Table 2

Gasoline Pricing Mechanisms		
Relatively Fixed	***Partial Pass-Through***	***Virtual Pass-Through***
Antigua and Barbuda	Anguilla	Montserrat
Saint Lucia	Dominica	St. Kitts and Nevis
St. Vincent and the Gren.	Grenada	

Source: ECCB

Table 3a: Chronology of Retail Gasoline Prices: 2000-2005

Country / Effective Date	Unleaded Gasoline Per Gallon (EC$ per gal.)
Anguilla	
1-Jan-01	7.59
11-Nov-02	7.20
16-Jan-03	7.30
2-Feb-04	7.88
28-Jun-04	8.15
13-Oct-04	8.80
Apr-05	9.70
Antigua and Barbuda	
1-Aug-00	6.85
April 03	7.89
	7.57
14-Jul-03	7.76
12-Sep-03	7.98
14-Jan-04	7.66
9-Feb-04	7.98
6-Nov-04	8.30
8-Aug-05	9.30
Dominica	
1-Feb-03	7.98
26-Jan-04	8.04
24-Mar-04	8.45
18-May-04	8.82
13-Oct-04	9.15
9-Nov-04	9.37
29-Dec-04	8.96
25-Jan-05	8.77
18-Mar-05	9.34
Jun-05	9.87
25-Jul-05	9.99
29-Aug-05	10.32
Grenada	
7-Jul-00	7.95
22-Dec-00	7.50
Montserrat	
Jan 01	6.50
1-Jul-04	7.90
20-Jun-05	8.55
16-Aug-05	9.50
St. Kitts and Nevis	
15-Jul-00	6.60
22-Feb-05	8.30
St. Lucia	
16-Oct-00	6.97
June 02	7.75
23-Jun-04	8.50
24-Aug-05	9.50
St. Vincent and the Grenadines	
1-Jul-01	6.75
23-Aug-04	7.50
1-Jan-05	8.00

Table 3b: Chronology of Retail Gasoline Prices
Selected Caribbean Countries

Country / Effective Dates	Retail Gasoline Prices (EC$ per gallon)
Barbados	
Mar. 2000	9.76
Nov. 2000	10.19
Feb. 2003	9.02
	10.13
8 Apr. 2005	12.89
St Maarten	
18 Mar. 2003	8.84
Oct. 2004	9.31
20 Apr. 2005	11.03
Guyana	
Dec..1999	5.05
Dec. 2000	5.48
Dec. 2001	4.60
Dec. 2002	5.60
Feb. 2003	6.00
27 Mar. 2005	9.57

Source: Ministries of Finance in Selected Countries

Table 4

PRICE BUILD-UP FOR UNLEADED GASOLINE (E.C.$ per Imperial Gallon)

	Anguilla	Antigua & Barbuda	Dominica [2]	Grenada	Montserrat [5]	St. Kitts & Nevis	St. Lucia	St. Vincent & the Grenadines
F.O.B.[1]		5.38	5.43	5.63		5.63	5.63	5.63
Freight & Insurance		0.15	0.29	0.28		0.33	0.25	0.31
In Transit Loss		0.00	0.02	0.00		0.00	0.00	0.00
C.I.F.		5.53	5.74	5.91	6.93	5.96	5.88	5.94
Consumption Tax[3]		1.95	2.45	(0.43)	0.69	0.45	1.81	0.47
Customs Service Charge		0.00	0.17	0.17	0.38	0.12	0.29	0.16
Petrol Levy		0.10	0.00	0.00	0.00	0.07	0.00	0.00
WIOC Terminal Cost[4]		0.48	0.00	0.00	0.00	0.00	0.00	0.00
Landed Cost		8.06	8.36	5.65	8.00	6.60	7.99	6.57
Inland Transport		0.08	0.27	0.00	0.00	0.00	0.00	0.00
Subsidies		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wholesale Margin		0.41	0.50	0.95	0.85	1.00	0.82	0.83
Subtotal		8.55	9.13	6.60	8.85	7.60	8.80	7.40
Sales Tax		0.00	0.66	0.00	0.10	0.00	0.00	0.00
Wholesale Price		8.55	9.79	6.60	8.95	7.60	8.80	7.40
Retail Margin		0.75	0.53	0.90	0.55	0.70	0.70	0.60
Retail Price	**9.70** [6\]	**9.30**	**10.32**	**7.50**	**9.50**	**8.30**	**9.50**	**8.00**

Source: Ministries of Finance

[1] FOB prices are as of 22 July 2005 except for Antigua and Barbuda, which is as of 3 July 2005.

[2] Dominica's FOB price is obtained by taking the average of the FOB prices of the most recent two months.

[3] General consumption tax (GCT) is treated as a residual except in the cases of **Dominica** and **Montserrat.** In Dominica, the GCT is fixed for periods ranging from 6 months to one year, while in Montserrat it is equal to 10 per cent of CIFplus duty.

[4] West Indies Oil Company

[5] An accurate CIF price build-up for Montserrat was not available

[6\] Price build-up data for Anguilla were not available

Table 5
Real GDP Growth (% change)

ECCU Countries	2000	2001	2002	2003	2004
Anguilla	(0.3)	3.3	(3.1)	2.9	15.9
Antigua and Barbuda	3.3	1.5	2.0	4.3	5.2
Dominica	1.3	(4.2)	(5.1)	0.1	3.6
Grenada	7.0	(4.4)	0.8	5.8	(3.0)
Montserrat	(3.0)	(2.8)	3.3	(0.8)	4.5
St Kitts and Nevis	6.5	1.7	(0.3)	(0.9)	6.4
St Lucia	(0.3)	(4.1)	0.1	2.9	3.6
St Vincent and the Grenadines	2.0	(0.1)	3.2	3.4	5.4
ECCU	2.7	(1.3)	0.5	3.0	4.1

Source: ECCB

Table 6:
Merchandise Trade Deficit (EC$M)

ECCU Countries	2000	2001	2002	2003	2004
Anguilla	244.4	203.0	175.2	195.9	261.0
Antigua and Barbuda	861.0	707.8	882.5	1,009.1	1,082.6
Dominica	256.3	237.0	198.9	237.5	279.5
Grenada	453.0	431.1	440.0	574.0	676.3
Montserrat	55.4	50.3	64.8	70.4	63.2
St Kitts and Nevis	406.4	379.5	385.7	391.5	362.1
St Lucia	841.9	715.2	666.8	920.1	930.1
St Vincent and the Grenadines	263.0	351.6	375.9	438.0	517.8
ECCU	3,381.4	3,076.5	3,189.8	3,836.5	4,172.6

Source: ECCB and CSOs

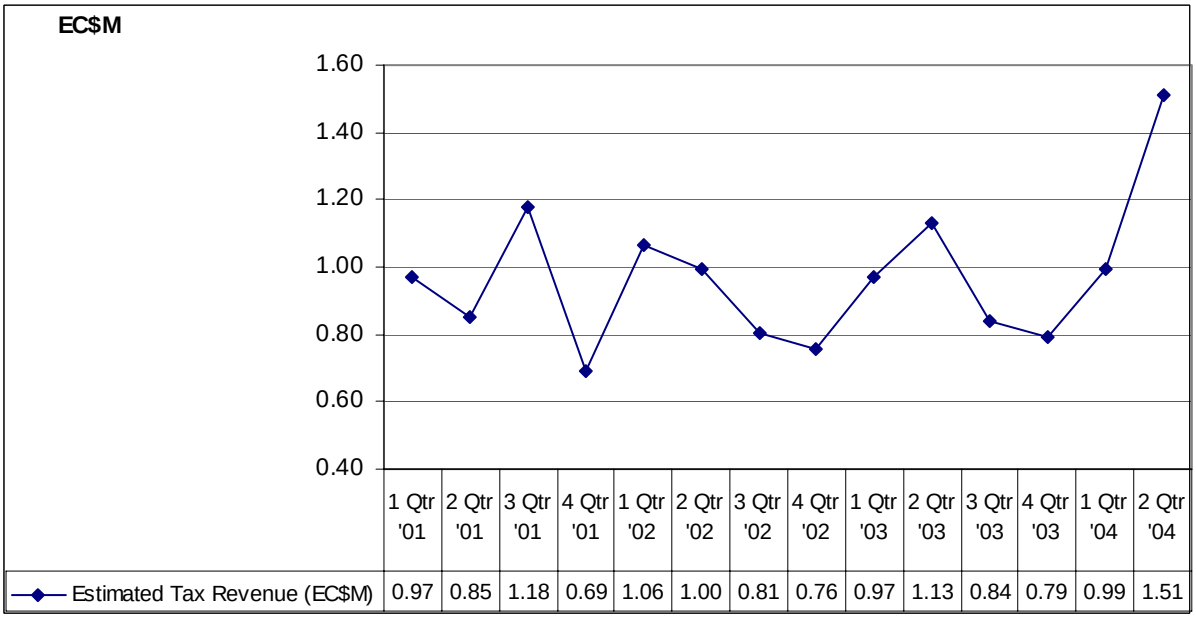
Table 7
Grant element in the Petro – Caribe loans at different discount rates

	5% discount				6 % discount				7% discount				10 % discount			
Rate of interest and maturity period	No grace period	2 years' grace	5 years' grace	10 years' grace	No grace period	2 years' period	5 years' grace	10 years' grace	No grace period	2 years' period	5 years' grace	10 years' grace	No grace period	2 years' period	5 years' grace	10 years' grace
1% interest																
10 years	16.9	20	24.3		20.4	24.1	29.2		23.6	28	33.8		32.2	38	45.4	
20 years	29.6	32.2	35.8	41.1	34.9	37.9	42	48	39.5	43	47.6	54	50.7	55	60.5	67.5
2% interest																
10 years	12.7	15	15.1		16.4	19.3	23.3		19.9	23.3	28		28.9	33.8	40.2	
20 years	22.6	24.4	26.9	30.7	28.4	30.7	33.8	38.3	33.6	36.2	39.8	44.9	45.9	49.4	53.9	59.8
3% interest																
10 years	8.5	9.9	11.9		12.4	14.4	17.3		16	18.6	22.3		25.5	29.6	35.1	
20 years	15.2	16.3	17.9	20.2	21.6	23.2	25.3	28.5	27.3	29.2	31.9	35.7	40.8	43.6	47.3	52.2
4% interest																
10 years	4.1	4.8	5.7		8.2	9.5	11.3		12	13.9	16.5		21.9	25.4	29.8	
20 years	7.4	7.9	8.6	9.7	14.4	15.4	16.7	18.6	20.6	21.9	23.8	26.4	35.4	37.6	40.5	44.4

Source: Author's calculation

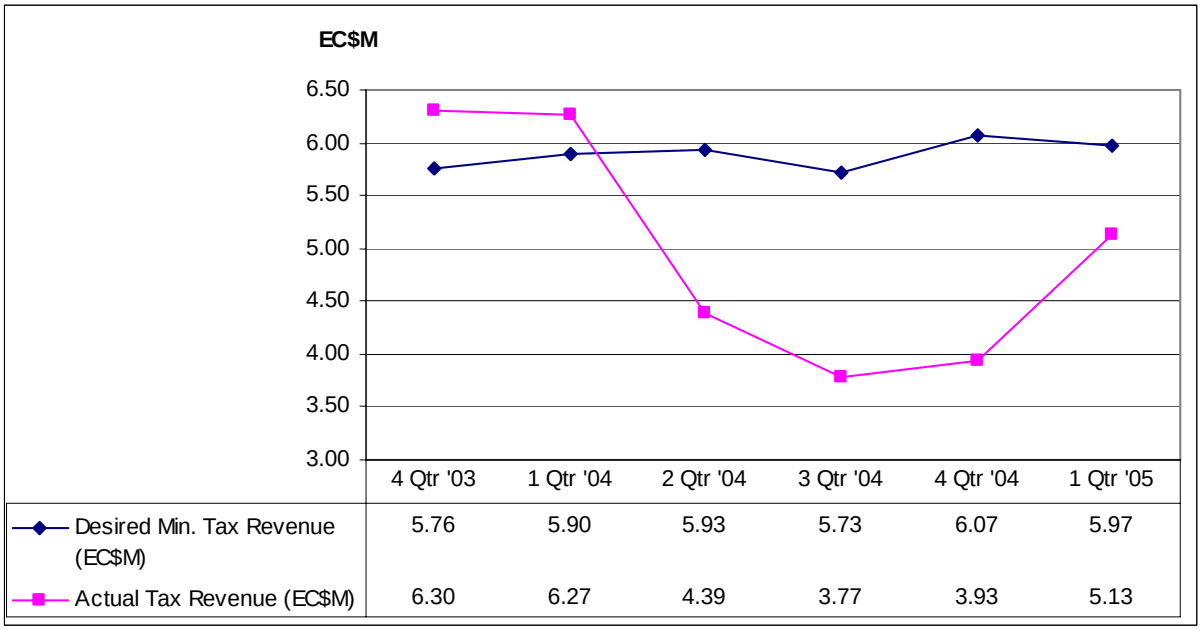
APPENDIX II: CHARTS

Chart 3: **Anguilla:** Estimated Consumption Tax Revenue on Gasoline Over the Period: 1 Qtr 2001 to 2 Qtr 2004



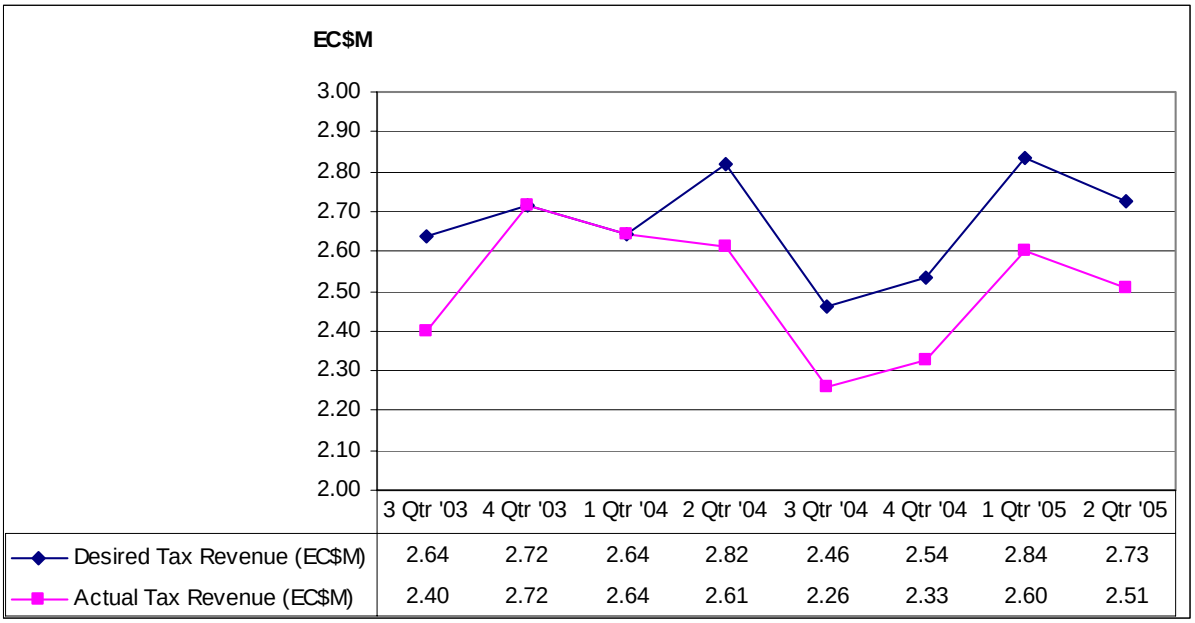
	1 Qtr '01	2 Qtr '01	3 Qtr '01	4 Qtr '01	1 Qtr '02	2 Qtr '02	3 Qtr '02	4 Qtr '02	1 Qtr '03	2 Qtr '03	3 Qtr '03	4 Qtr '03	1 Qtr '04	2 Qtr '04
Estimated Tax Revenue (EC$M)	0.97	0.85	1.18	0.69	1.06	1.00	0.81	0.76	0.97	1.13	0.84	0.79	0.99	1.51

Chart 4: Antigua and Barbuda: Comparison of Actual and Minimum Desired Consumption Tax Revenue on Gasoline over the Period: 4 Qtr 2003 to 1 Qtr 2005



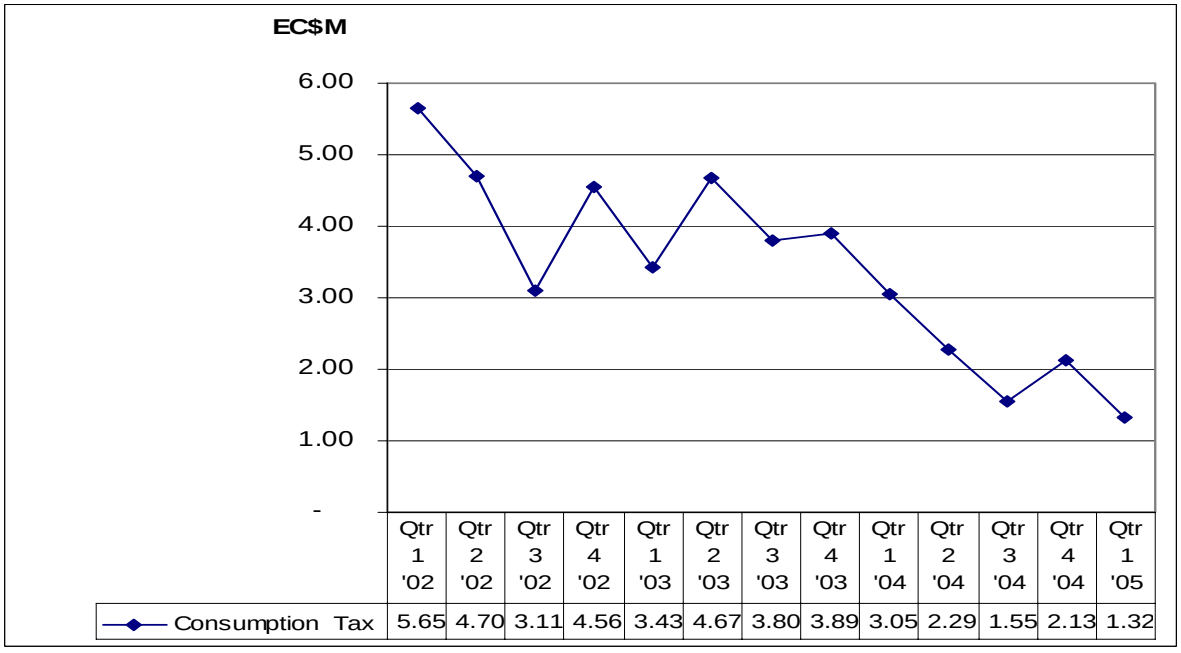
	4 Qtr '03	1 Qtr '04	2 Qtr '04	3 Qtr '04	4 Qtr '04	1 Qtr '05
Desired Min. Tax Revenue (EC$M)	5.76	5.90	5.93	5.73	6.07	5.97
Actual Tax Revenue (EC$M)	6.30	6.27	4.39	3.77	3.93	5.13

Chart 5: Dominica: Comparison of Actual and Desired Consumption Revenue on Gasoline over the Period: 3 Qtr 2003 to 2 Qtr 2005



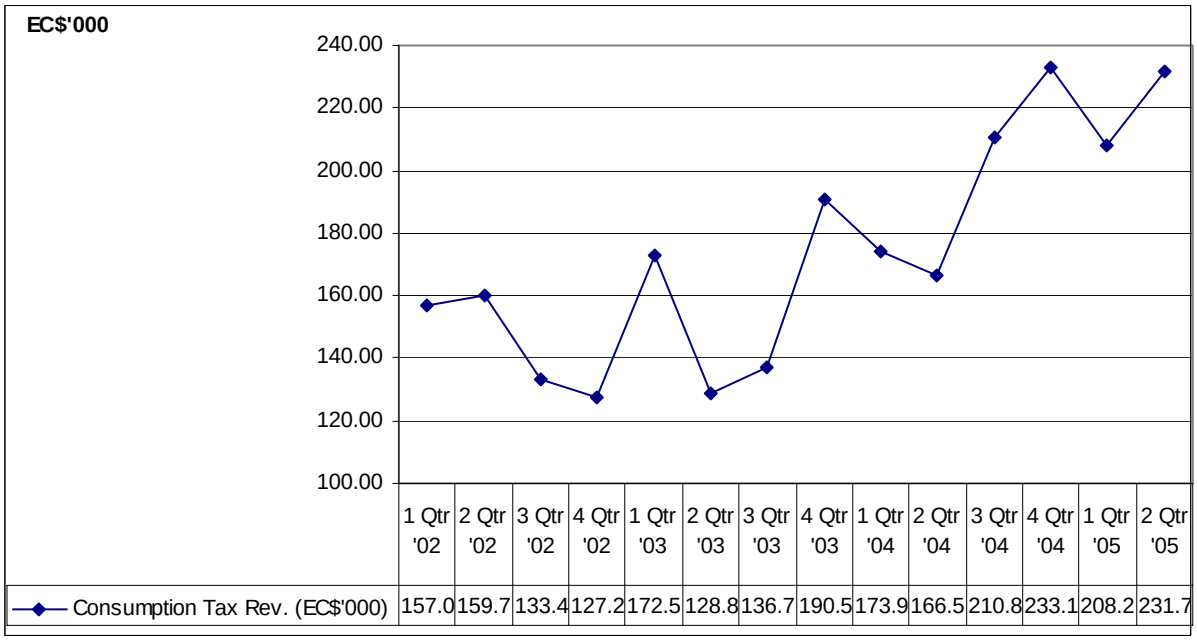
	3 Qtr '03	4 Qtr '03	1 Qtr '04	2 Qtr '04	3 Qtr '04	4 Qtr '04	1 Qtr '05	2 Qtr '05
Desired Tax Revenue (EC$M)	2.64	2.72	2.64	2.82	2.46	2.54	2.84	2.73
Actual Tax Revenue (EC$M)	2.40	2.72	2.64	2.61	2.26	2.33	2.60	2.51

Chart 6: Grenada: Estimated Consumption Tax Revenue on Gasoline Imports over the Period: Qtr 1 '02 to Qtr 1 '05



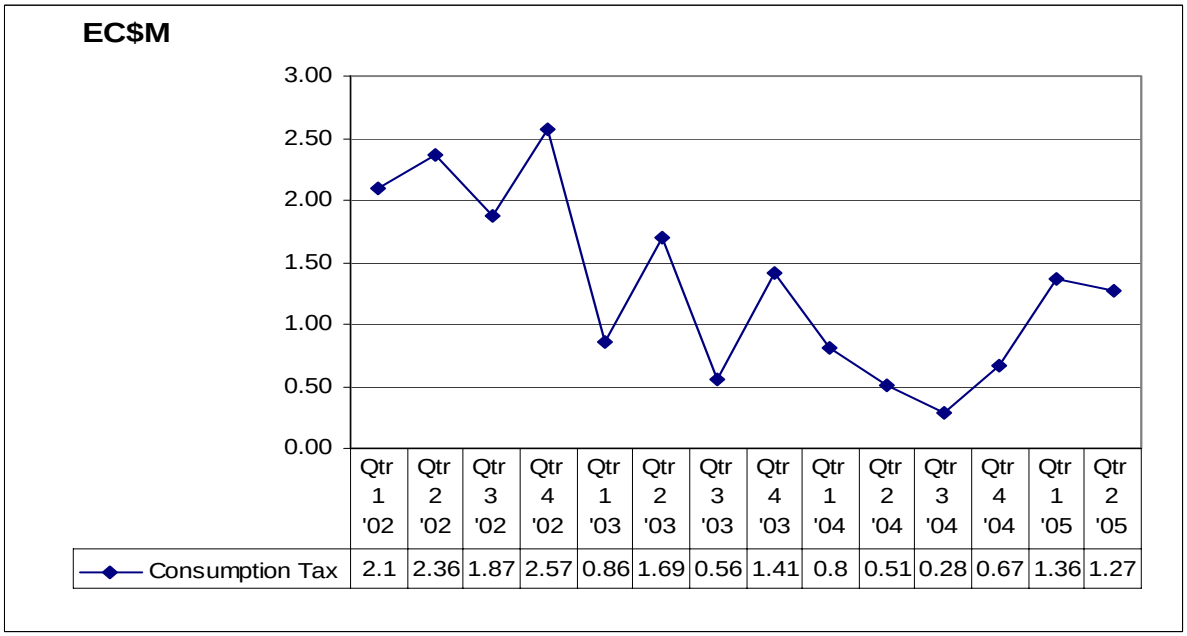
	Qtr 1 '02	Qtr 2 '02	Qtr 3 '02	Qtr 4 '02	Qtr 1 '03	Qtr 2 '03	Qtr 3 '03	Qtr 4 '03	Qtr 1 '04	Qtr 2 '04	Qtr 3 '04	Qtr 4 '04	Qtr 1 '05
Consumption Tax	5.65	4.70	3.11	4.56	3.43	4.67	3.80	3.89	3.05	2.29	1.55	2.13	1.32

Chart 7: **Montserrat:** Actual Consumption Tax Revenue on Gasoline
Over the Period: 1 Qtr 2002 to 2 Qtr 2005



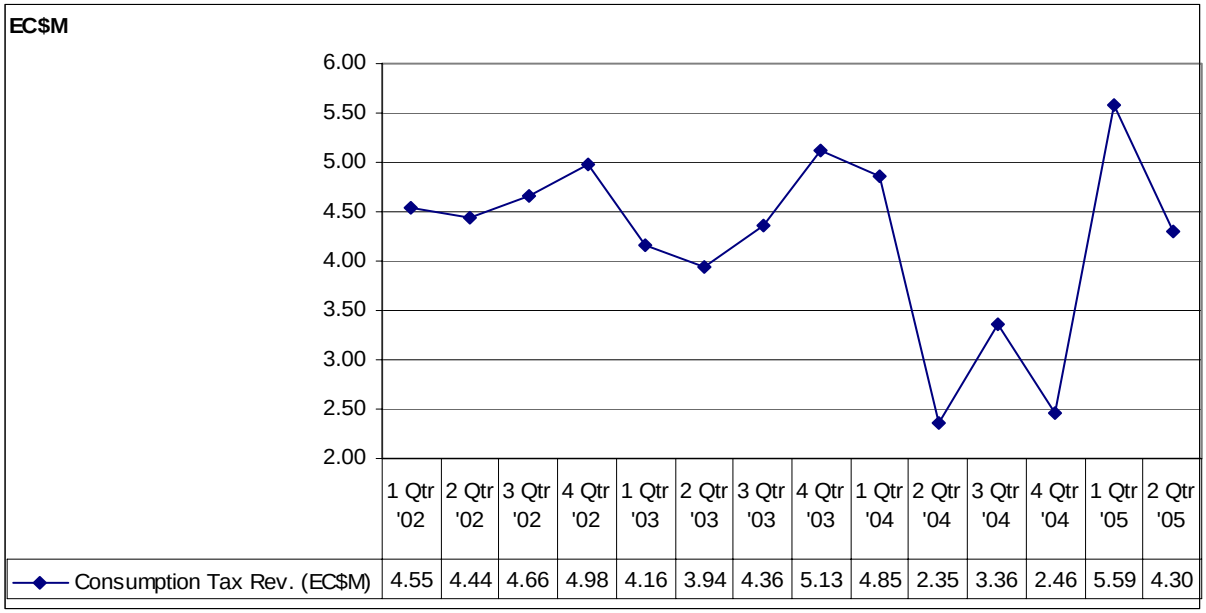
	1 Qtr '02	2 Qtr '02	3 Qtr '02	4 Qtr '02	1 Qtr '03	2 Qtr '03	3 Qtr '03	4 Qtr '03	1 Qtr '04	2 Qtr '04	3 Qtr '04	4 Qtr '04	1 Qtr '05	2 Qtr '05
Consumption Tax Rev. (EC$'000)	157.0	159.7	133.4	127.2	172.5	128.8	136.7	190.5	173.9	166.5	210.8	233.1	208.2	231.7

Chart 8: **St Kitts and Nevis:** Estimated Consumption Tax Revenue on Gasoline
Over the Period: 1 Qtr 2002 to 2 Qtr 2005



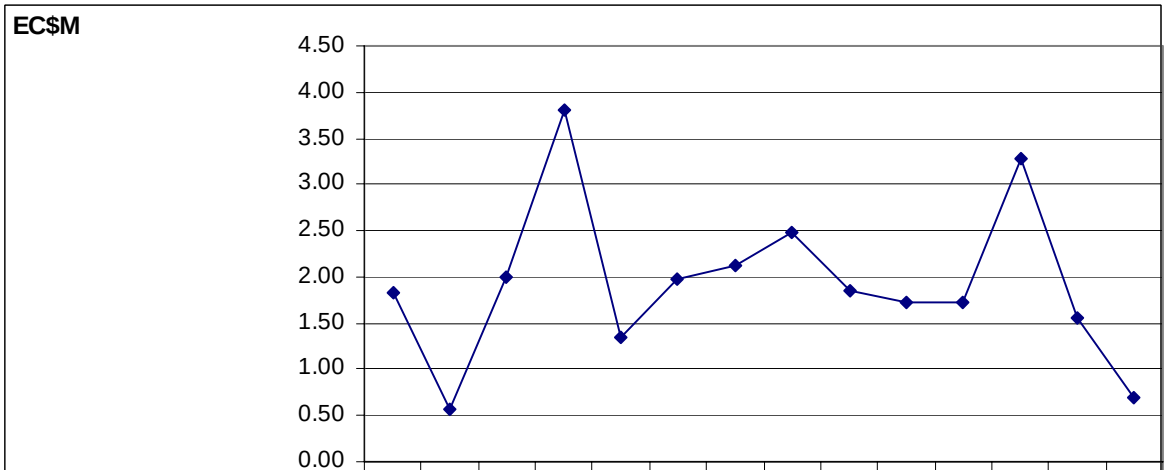
	Qtr 1 '02	Qtr 2 '02	Qtr 3 '02	Qtr 4 '02	Qtr 1 '03	Qtr 2 '03	Qtr 3 '03	Qtr 4 '03	Qtr 1 '04	Qtr 2 '04	Qtr 3 '04	Qtr 4 '04	Qtr 1 '05	Qtr 2 '05
Consumption Tax	2.1	2.36	1.87	2.57	0.86	1.69	0.56	1.41	0.8	0.51	0.28	0.67	1.36	1.27

Chart 9: **St. Lucia:** Actual Consumption Tax Revenue on Gasoline Over the Period:1 Qtr 2002 to 2 Qtr 2005



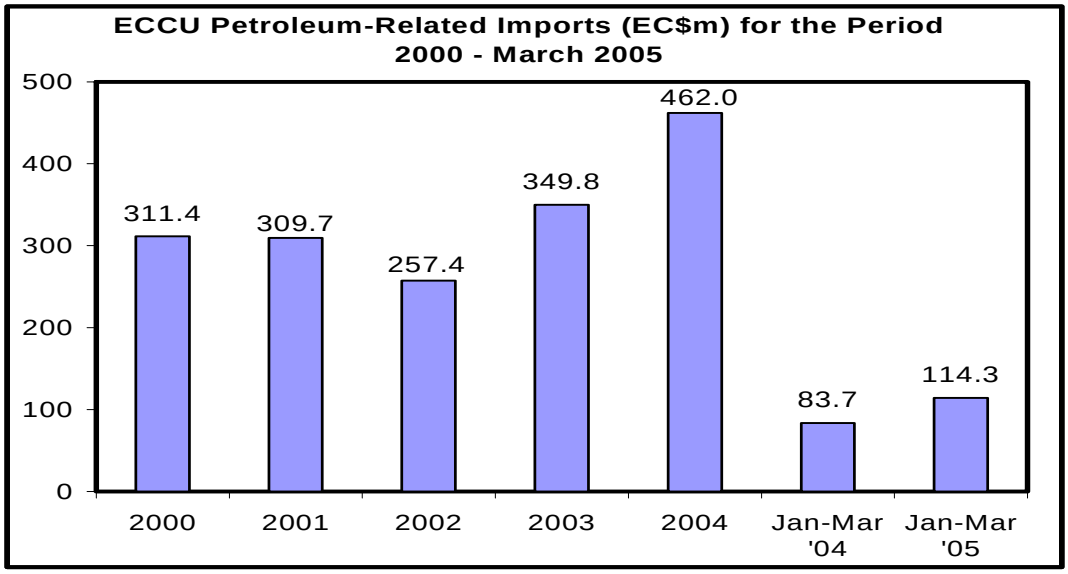
	1 Qtr '02	2 Qtr '02	3 Qtr '02	4 Qtr '02	1 Qtr '03	2 Qtr '03	3 Qtr '03	4 Qtr '03	1 Qtr '04	2 Qtr '04	3 Qtr '04	4 Qtr '04	1 Qtr '05	2 Qtr '05
Consumption Tax Rev. (EC$M)	4.55	4.44	4.66	4.98	4.16	3.94	4.36	5.13	4.85	2.35	3.36	2.46	5.59	4.30

Chart 10: **St Vincent and The Grenadines:** Actual Consumption Tax Revenue on Gasoline Over the Period: 1 Qtr 2002 to 2 Qtr 2005



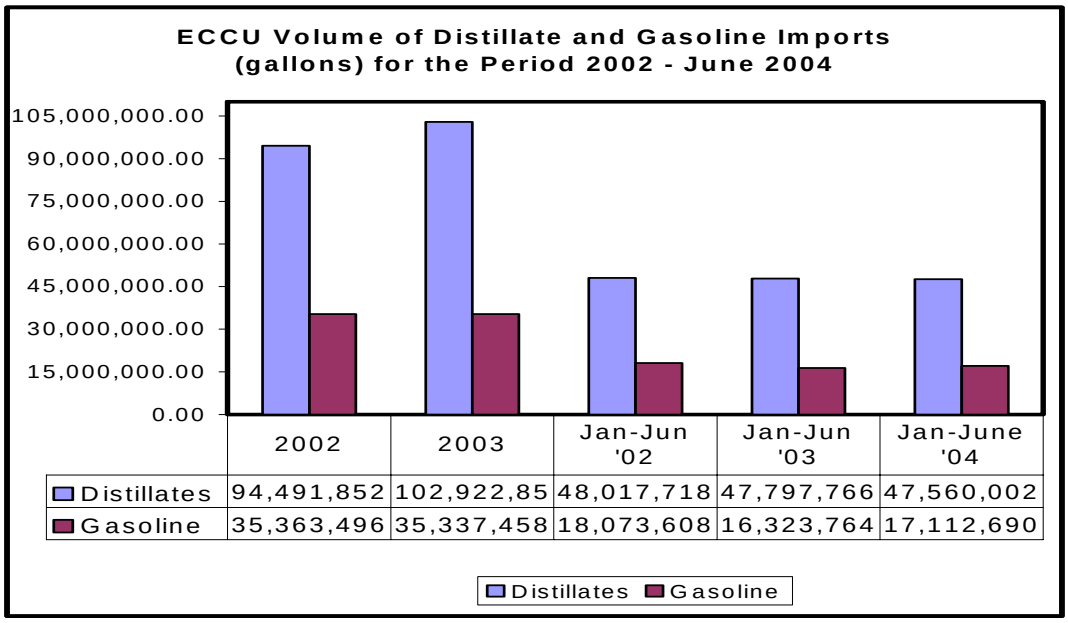
	1 Qtr '02	2 Qtr '02	3 Qtr '02	4 Qtr '02	1 Qtr '03	2 Qtr '03	3 Qtr '03	4 Qtr '03	1 Qtr '04	2 Qtr '04	3 Qtr '04	4 Qtr '04	1 Qtr '05	2 Qtr '05
Consumption Tax Rev. (EC$M)	1.82	0.57	2.00	3.81	1.34	1.99	2.13	2.49	1.85	1.73	1.73	3.28	1.56	0.69

Chart 11: ECCU Petroleum–Related Imports (EC$m) for the Period 2000-March 2005



Source: ECCB Economic and Financial Statistics Unit

Chart 12: ECCU Volume of Distillate and Gasoline imports for the Period 2002 – June 2004 (gallons)



Source: Petrotrin