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AN ECLECTIC VIEW ON ECCB'S BALANCE OF PAYMENTS

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BALANCE OF PAYMENTS

Introduction

The balance of payments may be defined as a statement of all transactions between one country and the rest of the world usually reported annually. A deficit occurs when there is an excess of outpayments over inpayments on autonomous transactions; a surplus occurs when the opposite is true. Reserve assets and official debt instruments constitute the means of financing that imbalance. However such financing can only go on as long as reserve assets last or as long as foreign countries are willing to accept liabilities of the deficit country. Because the balance of payments outturn influences developments in the economy as a whole, particularly the monetary sector, it is important that the authorities have reliable data at their disposal for the purpose of formulating policy. In seeking to adapt the standard balance of payments presentation to fit the ECCB's institutional arrangements this paper is by and large a progress report, providing some insights into the thought process which has led us thus far. Before proceeding to develop the format however, an analysis of the inter-relationships of the whole adjustment process with particular reference to the ECCB area, would seem appropriate.

Linkages in the Adjustment Process

The process of money creation in small economies is very much related to the broader issue of international payments adjustment. A surplus or deficit in the balance of payments being a net flow of money between countries, usually tends to make the supply of money in each country match the demand for it. Before the emergence of fractional reserve

¹ The member States of the Eastern Caribbean Central Bank are Antigua & Barbuda, Dominica, Grenada, Montserrat, St. Kitts & Nevis, St. Lucia and St. Vincent & The Grenadines.

banking, money and reserves were regarded as the same thing, freely interchangeable; and since an overall surplus or deficit on the balance of payments was roughly a net flow of money or of reserves that backed up money, the link between the balance of payments and the national money supply was very clear. In terms of a simple identity:

$$B = \Delta R = \Delta M \quad (1)$$

where B is the balance of payments surplus, R the change in reserves and M the change in money supply.

With the growth in the banking system and the introduction of fractional reserve banking, the money supply became dependent not only on net foreign reserves but also on domestic credit expansion by the banking system (D).

Thus: $M = R + D$

But since $B = \Delta R$

Then $\Delta M = B + \Delta D \quad (2)$

This relationship which implies that the growth of money is a function not only of the balance of payments but of domestic credit as well, is the central feature of the adjustment process in the ECCB area.

The interrelationship between the balance of payments and domestic monetary developments is also most evident in examining the balance sheet of the Central Bank where

$$RM = NFA + DC \quad (3) \quad \left[\begin{array}{l} \text{Assets} \\ \text{NFA} \\ \text{DC} \end{array} \quad \begin{array}{l} \text{Liabilities} \\ \text{RM} \end{array} \right]$$

and $\Delta RM = \Delta NFA + \Delta DC \quad (4)$

where

RM = Reserve Money (principal liabilities of the Central Bank)

NFA = Net foreign assets of the Central Bank

DC = Domestic credit of the Central Bank

In equation (3) reserve money is shown as a liability of the Central Bank with variations depending on changes in NFA and DC, the two assets components. ΔNFA is conceived as the surplus or deficit in the balance of payments and therefore provides a direct relationship with domestic monetary developments.

Other things being equal, an overall surplus in the balance of payments adds to NFA and increases reserve money while a deficit reduces NFA and consequently reserve money.

Table 1 is a summary balance sheet of the ECCA/ECCB. It shows that reserve money (monetary base) has grown by \$46,581 between December 1979 and December 1983. This growth was associated with the following changes:

	<u>\$ 000</u>
NFA	-39,411
Credit to Governments	+22,869
Credit to commercial banks	+ 6,091
Other items (net)	+57,022

Table 1 implies the following identity between the stock of assets and reserve money liabilities of the Central Bank:

$$RM_t = NFA_t + NDCG_t + CCB_t + OIN_t \quad (5)$$

Other things being equal reserve money will increase when there is an increase in NFA, an increase in net Government borrowing (either through an increase in liabilities to ECCB or a decline in Government deposits), an increase in ECCB's claim on commercial banks or a decline in other items (net).

In terms of flow (changes in stock) the equation can be written as:

$$\Delta RM_t = \Delta NFA_t + \Delta NDCG_t + \Delta CCB_t + \Delta OIN_t \quad (6)$$

By dividing both sides of the equation by the lagged value of reserve money RM_{t-1} , the contribution of these factors to growth in the reserve money is derived:

$$\frac{\Delta RM_t}{RM_{t-1}} = \frac{\Delta NFA_t}{RM_{t-1}} + \frac{\Delta NDCG_t}{RM_{t-1}} + \frac{\Delta CCB_t}{RM_{t-1}} + \frac{\Delta OIN_t}{RM_{t-1}}$$

Over time the authorities would therefore be provided with useful information on behavioural patterns of the various components.

Through the multiplier process, changes in reserve money can affect the level of the money stock. Introduction of the money stock into the analysis brings into focus the operations of commercial banks and hence the monetary survey which is a consolidation of the Central Bank with the commercial banks. This consolidation leads to the following identity

$$\begin{aligned} \text{NFA} + \text{DC} &= \text{M} + \text{QM} \\ \Delta \text{NFA} + \Delta \text{DC} &= \Delta \text{M} + \Delta \text{QM} \end{aligned}$$

Where

NFA = net foreign assets of the banking system

DC = domestic credit of the banking system

M = money

QM = Quasimoney

Equation - suggests that the money stock (M+QM) may change on account of the external balance (Δ NFA) or as a result of domestic developments (Δ DC). If as a result of developments in the domestic economy there is an expansion in the money supply in excess of the level people wish to hold, the external component of the money stock, i.e. the balance of payments provides the avenue for adjustment. The excess of actual money supply over the desired level of money holdings leads to increased spending and, through its impact on imports and capital flows, to a decline in net foreign assets. Conversely a restrictive monetary policy by reducing actual spending below desired levels, triggers a balance of payments surplus.

The situation described thus far, exists under fixed exchange rates which is akin to the exchange arrangements in the ECCB area. Under flexible exchange rates however, the disparity between demand and supply for money would result in a change in the exchange rate.

In a currency union the sum of the balance of payments outturn for all member states is reflected in changes in the reserve holdings of the Central Bank and the commercial banks. In a two-country model the effect of inter-island transactions on the balance of payments is a territorial shift in assets and liabilities but no change in global reserves.

If a member country has an excess of current payments over current receipts, demand deposits in the deficit country will fall; and as cheques are cleared reserves of deficit area banks with the Central Bank will decline. The opposite will occur in the surplus area. In order to rebuild their required reserve position those banks which experienced an adverse clearing will be forced to liquidate their liquid securities (Secondary assets). Correspondingly banks experiencing deposit gains will be able to hold more liquid assets. A situation may therefore arise where deficit area banks sell and surplus area banks buy a quantity of secondary reserve assets equal to the initial imbalance, thereby resulting in the surplus area banks completely financing the current account imbalance through the purchase of financial assets from deficit area banks.

With the additional liquidity acquired, the deficit area banks can increase their lending to provide funds needed for the excess imports. The money supply in both regions remains unaffected by the payments imbalance. If the regional deficit continues, deficit area banks will become increasingly reluctant to liquidate secondary reserves and surplus area banks may not wish to acquire additional financial assets. This will lead to a curtailment of expenditure in the deficit area and a reduction in imports and real income. The process will continue until equilibrium in the balance of payments is restored.

In a situation in which a member country increases its money supply, domestic interest rates will tend to fall, leading to a capital outflow. Thus the increase in income resulting from lower interest rates will accrue to the currency area. Where funds are blocked however the increased income is confined initially to the inflating country, prices will rise and there will be a deterioration in the country's terms of trade. The financing process described above will occur whether a member's imbalance is with the rest of the union or the rest of the world. Where a union member runs an extra regional deficit, the Central Bank will lose reserves. Such a situation if it persists will require corrective action through the use of monetary or exchange rate policy.

Foreign Assets

In the typical balance of payments presentation of a country the computation of foreign assets - poses little difficulty since the principal holders of foreign assets - the Monetary Authority, commercial banks etc. - are located within the country. In a currency union where the central monetary authority is supported by branch agencies in each member state, there is also little difficulty in monitoring territorial movements of foreign reserves ¹. The structure of the ECCB is somewhat different, all transactions have tended to be centralised within the monetary authority and the distinction between territorial sources and uses of funds has been largely blurred.

Another factor which has militated against the compilation of accurate balance of payments statistics is the modus operandi of the commercial banks within the area. Traditionally the branch banks have maintained a single account with the ECCA/ECCB for the processing of all transactions within the currency area. Since territorial details of these transactions were not provided, the sources and uses of foreign exchange could not be readily determined. Following the establishment of the Central Bank and the imposition of reserve requirements however, commercial banks are now required to maintain territorial accounts thereby providing greater scope for separate country data.

¹ In the monetary unions of French West and Central Africa (BCEAO + BEAC) reserves are allocated within a centralised accounting system maintained through the Bank of France and supported at the territorial level by branch agencies, each of which is required to hold an operations account with the French Treasury for the purpose of recording foreign exchange transactions.

Given the nature of the monetary and banking arrangements which currently exist, it is necessary therefore to arrive at a formula which can be used as a proxy for real movements of foreign reserves in each member state. The formula proposed for estimating the stock of reserves is as follows

(Net currency issued) + (Net deposits of banks with ECCB) - (ECCB credit to Governments). The rationale for using this formula is that in each territory the Central Bank has liabilities amounting to the sum total of net currency issued plus deposits of commercial banks. These liabilities therefore constitute a claim on the foreign assets of the Bank. However, to the extent that countries have borrowed from the Bank, such assets of the Bank must be set off against its liabilities to arrive at the net claim on the Bank's foreign assets. An application of this formula is shown in Table 11.

In the long run as the quality of the data base improves there will also be an improvement in the figures for imputed foreign assets as shown in the table. Indeed, with the introduction of coded notes in July 1983 and the requirement that banks maintain territorial accounts (March 1984) the figures for imputed net foreign assets will now be much more reliable. At the foot of table 11 the difference between the stock of reserves held in December 1979 and that held in December 1980 represents the change that occurred in 1980, and the differences between the stock figures for 1980 and 1981 represents the change which occurred in 1981.

A balance of payments format for individual countries is set out in table 111. In this presentation "Financing" has been singled out for special attention. The components of ECCB related financing are defined as (i) Bank deposits, held with ECCB, (ii) Currency Issued (iii) ECCB lending to Governments and (iv) Profits distributed. It may be argued that profits are an investment income and should be treated as a current account item. However, in view of the fact that the ECCB is conceived as a non-resident institution for balance of payments purposes, all transactions taking place between the ECCB and member countries are categorized as financing.

Item 9 net foreign assets of commercial banks is also singled out for special attention. It includes changes in the net position with other ECCA States, acknowledging that even though the transaction is in EC dollars it gives rise to a claim on the area's foreign assets. According to balance of payments principles it is the residency that determines whether a transaction is foreign or domestic. In this regard non-resident deposits should be considered as foreign liabilities of the commercial banks. However, in view of the fact that these non-residents are in reality nationals living abroad and who do not have intention of remitting the deposits back to their country of residence, only non-resident deposits in foreign currency are treated as foreign liabilities.

In Appendix 1 examples of typical transactions have been provided with a view to tracing their effect on the balance of payments. For example if Country A received \$10m in profits from ECCB it is shown as a financing item under profit. If \$8m is then used to pay for imports and \$2m to pay Civil Servants, both transactions represent outflows, the first under traded goods and the second to finance additional currency in circulation. Other illustrations are contained in the appendix and all the transactions could be traced in the table provided.

The results of this exercise would seem to lend support for the use of our formula in estimating reserves and, together with the revised format for balance of payments presentation, the prospects for preparing more meaningful balance of payments statistics for ECCB countries should be greatly enhanced.

TABLE I

SUMMARY ACCOUNTS OF ECCA/ECCB

1979-1983 (End of Year)

\$000

SOURCES OF MONETARY BASE						USES OF MONETARY BASE					
	1979	1980	1981	1982	1983		1979	1980	1981	1982	1983
Net Foreign Assets	175,789	219,409	190,602	134,200	136,378	Reserve Money	118,234				164,805
Net Claims on Govts	33,543	40,354	45,863	53,235	56,412	(i) Currency outside Commercial Banks	86,212	94,210	105,668	108,023	112,673
Claims on Commercial Banks	2,165	2,250	2,415	2,649	8,256	(ii) Currency in Bank Vaults	24,127	26,643	25,906	28,383	29,281
+ Other Items (net)	- 93,263	-128,220	- 94,164	- 35,909	- 36,241	(iii) Commercial Bank Deposits (with ECCA/ECCB)	7,895	12,940	13,142	17,769	22,851

Other Items (net) = (NFA + Claims on Governments + Claims on Banks) - (Reserve Money)

TABLE II

NET FOREIGN ASSETS OF INDIVIDUAL ECCB COUNTRIES

(Comparison between Actual and Imputed Values)

	<u>ECSM</u>							<u>TOTAL</u>
	<u>ANT.</u>	<u>DOM.</u>	<u>GRN.</u>	<u>MONT.</u>	<u>ST.K</u>	<u>ST.L</u>	<u>ST.V</u>	
<u>DECEMBER 1979</u>								
Bank Deposits with ECCB (net)	15.7	21.4	6.2	6.7	-0.6	3.5	11.6	64.5
Currency Issued	<u>19.7</u>	<u>10.1</u>	<u>33.1</u>	<u>4.1</u>	<u>2.3</u>	<u>26.7</u>	<u>16.6</u>	<u>112.6</u>
Total	35.4	31.5	39.3	10.8	1.7	30.2	28.2	177.1
ECCB Credit (-)	6.3	4.3	6.4	-	3.4	9.1	4.1	33.6
Imputed NFA	29.1	27.2	32.9	10.8	-1.7	21.1	24.1	143.5
Actual NFA								167.4
<u>DECEMBER 1980</u>								
Bank Deposits with ECCB (net)	10.7	10.2	4.4	4.5	-5.0	3.4	7.0	35.2
Currency Issued	<u>19.7</u>	<u>9.9</u>	<u>37.8</u>	<u>4.5</u>	<u>2.6</u>	<u>29.3</u>	<u>17.1</u>	<u>120.9</u>
Total	30.4	20.1	42.2	9.0	-2.4	32.7	24.1	158.1
ECCB Credit (-)	9.4	5.8	7.3	-	3.4	11.4	4.6	41.9
Imputed NFA	21.0	14.3	34.9	9.0	-5.8	21.3	19.5	114.2
Actual NFA								145.2
<u>DECEMBER 1981</u>								
Bank Deposits with ECCB (net)	8.4	2.3	10.6	0.5	5.8	0.4	8.0	36.0
Currency Issued	<u>21.0</u>	<u>10.0</u>	<u>42.4</u>	<u>4.6</u>	<u>2.5</u>	<u>31.8</u>	<u>19.2</u>	<u>131.5</u>
Total	29.4	12.3	53.0	5.1	8.3	32.2	27.2	167.5
ECCB Credit (-)	9.6	6.3	9.5	-	3.4	12.4	4.9	46.1
Imputed NFA	19.8	6.0	43.5	5.1	4.9	19.8	22.3	121.4
Actual NFA								148.8
<u>Changes in Imputed Reserves over Previous Year</u>								
1980	-8.1	-12.9	+2.0	-1.8	-4.1	+0.2	+4.6	-29.3
1981	-1.2	- 8.3	+8.6	-3.9	+10.7	-1.5	+2.8	+ 7.2

STANDARD BALANCE OF PAYMENTSPRESENTATION FOR ECCB COUNTRIES

1	CURRENT ACCOUNT BALANCE
2	Trade Balance
3	Service Balance
4	Private Transfers
5	CAPITAL ACCOUNT BALANCE
6	Official Grants (including profit - gold distribution from IMF)
7	Concessionary Loans
8	Other official loans
9	Commercial Banks net foreign assets
	(i) Change in net position with banks outside ECCB Area
	(ii) Change in net position with banks in other ECCB States
	(iii) Change in non-resident deposits (in foreign currency)
10	Direct Investment
11	Errors & Omissions
12	Change in SDR Allocation
13	Overall Balance
14	FINANCING
15	Change in ECCB related reserves
	(i) Δ Net deposit of commercial banks
	(ii) Δ Currency in circulation
	(iii) Δ ECCB lending to Governments
	(iv) Profits received from ECCB
16	Change in Fund & Government related items
	(i) Δ SDR holdings
	(ii) Δ IMF Lending
	(iii) Δ Government held reserves including Crown Agents Account

A. Private sector in Grenada exports to the United States (valued at US\$10m); commercial banks (CB) in Grenada keep US\$4m in New York, and exchange US\$6m at ECCB as follows US\$5m on deposit and US\$1m in cash.

B. Grenada receives an IMF credit of US\$10m, of which US\$2m is used to pay for higher imports, US\$3m is kept in foreign currency deposit with a local bank which the local bank keeps in New York, US\$1m is used to repay a short-term debt to ECCB, US\$4m is used to pay for labour on an investment project.

C. Grenada receives profit distribution from ECCB (US\$10m), and uses US\$5m to pay for imports from the United States, US\$3m to pay for imports from Antigua and US\$2m to pay its civil servants.

D. Grenada receives a nonresident deposit of US\$10m of which equivalent to US\$6m came as deposit transfers in EC\$. The Commercial bank in Grenada keeps US\$4m in New York and US\$1m with ECCB and US\$5m in cash.

Appendix 1 cont'd
\$M.

	A	B	C	D
1 CURRENT ACCOUNT BALANCE	10	-2	-8	-
2 Trade Balance	10	-2	-8	-
3 Service Balance	-	-	-	-
4 Private Transfers	-	-	-	-
5 CAPITAL ACCOUNT BALANCE	-4	-3	-	6
6 Official Grants	-	-	-	-
7 Concessionary Loans	-	-	-	-
8 Other official loans	-	-	-	-
9 Commercial Banks net foreign assets	-4	-3	-	-4
(i) Δ net position with banks outside ECCB				
(ii) Δ net position with other ECCB area banks	-	-	-	-
(iii) Δ non resident deposits in foreign currency	-	-	-	10
10 Direct Investment	-	-	-	-
11 Errors and Omissions	-	-	-	-
12 Change in SDR Allocation	-	-	-	-
13 Overall Balance	6	-5	-8	6
14 FINANCING	-6	5	8	-6
15 Change in ECCB related reserves	(-6)	(-5)	-2	-6
(i) Δ Net deposit of commercial banks	-5	-	-	-1
(ii) Δ Currency in circulation	-1	-4	-2	-5
(iii) Δ ECCB lending to Governments	-	-1	-	-
(iv) Profits received from ECCB	-	-	10	-
16 Change in Fund and Government related items	-	(10)	-	-
(i) Δ SDR holdings	-	-	-	-
(ii) Δ IMF lending	-	10	-	-
(iii) Δ Government held reserves	-	-	-	-