THE CAMBIO-SYSTEM OF AN INDEPENDENT EXCHANGE RATE FLOAT:

The Case of Guyana

by

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I.

This paper reports on research to date on the operations of the cambio-system of foreign exchange management in Guyana. It is part of a larger study on "financial distortions and financial policy" in the Caribbean, being jointly undertaken by Claremont Kirton and Clive Thomas, under joint ISER, UWI - IDS, UG, sponsorship. The work reported on is still at a preliminary stage, mainly because of the recency of the introduction of the cambio-system and the severe difficulties encountered ~~data~~ in data collection. The latter has been particularly severe in the area of complementary macro-economic and monetary data in monthly series, and in a form useful for econometric and other quantitative analysis. As readers would observe in going through the paper, we have in some instances formulated models and derived the equations to be estimated, but these have not yet been completed. The justification for such a preliminary study is the keen regional interest exhibited in the innovative character of the system and the exceptional economic circumstances under which it has been introduced.

The first section of the paper is introductory and seeks to locate the cambio-system in its local and international contexts. The second section outlines the mechanisms and operations of the system and introduces the main statistical series acquired to date. The third section looks at the theoretical and analytical rationale for the system and seeks to evaluate this. It is in this section that the data handicap is most acutely felt. The final section concludes with some proposals for policy reform.

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* Mr. Rampersaud has recently joined the Staff of the IDS and was made principally responsible for the collection of the statistical data. He is preparing an independent study reviewing Guyana's performance under its Economic Recovery Programme for the RPMS.

1. Introduction

The cambio-system is the second major initiative in the region to develop a market determined exchange rate system, the first being the auction - system in Jamaica. The origins of this initiative lie in both external and internal developments. Externally, the cambio system falls in the class of largely IMF - inspired mechanisms of independent inter-bank floats, of relatively recent vintage. As recently as 1984, in the IMF house journal, (Finance and Development) one of its staffers reported as orthodoxy, based on a sample survey of 33 countries (including Guyana!) that:

> "In practice therefore, the effective choice for ministates may be a fixed or a managed exchange rate system" (Galbis 1984. P. 38).

The standard recommendation then was the former when the authorities were pursuing sound credit management, and the latter otherwise. The rate when fixed was also best fixed in relation to a "basket of currencies", variously conceived.

Despite the above, during the decade of the 1980s, approximately 19 developing countries had either adopted floating rates or other independent interbank - type foreign exchange markets. Indeed between 1982 and 1986 it was reported that there were 23 shifts from currency pegs to more flexible forms of managed or independent floats and only six shifts in the reverse direction, to more inflexible systems. By 1986 as many as 28 developing countries had managed or independent floats. Since then, however, ten have moved from more flexible systems to pegs and only four from pegs to more flexible systems (IMF, 1989).

We may conclude therefore that if the cambio-system reflects IMF views of an appropriate exchange rate mechanism, then its introduction has come at a time when practice seems to be tempering other countries embrace of free market determined exchange rate systems and encouraging a shift back to the orthodoxy expressed in the 1984 article mentioned above, of a system of managed flexibility. Many of the changes in the flexible direction reported by the IMF have been in the context of Fund programs where balance of payments disequilibria have been acute; the external reserves crunch has been intense; black-markets, speculation and other negative developments have made the existing official exchange rate indefensible; and the external arrears situation was very bad. As we shall see next, in Guyana all these conditions existed, leaving the authorities with little or no room for manoeuvre.

These developments in favour of independent floats in developing countries are linked to broader global trends favouring liberalization and market determination of economic processes. The specific choice of the cambio form of independent exchange rate management in Guyana, we believe has much to do with widely expressed reservations of the other alternative - the Jamaican-type auction system.

Internally, "a unique combination of economic pathologies" had emerged: immiserizing growth, depopulation, persistent and acute balance of payments deficits in the context of absolute declines in the current values of exports and imports, sustained deterioration of physical plant and economic and social infrastructure, capital flight and currency substitution, all in combination with what is perhaps the world's largest per capita external debt. These economic circumstances plus the authorities record of managing adjustment over the past decade and a half appear to us to have given considerable leverage to the

IMF and other supporting countries and institutions to press Guyana to pursue the "free market option", making the cambio-system, somewhat of a reluctant choice. Whether so or not, in any event these economic circumstances have a great bearing on the later analysis. For the rest of this section, therefore, we shall briefly elaborate on the "economic pathologies" summarized in the first part of this paragraph taking the opportunity to introduce some key statistical series.

The details of this picture are summarized in the statistical series presented in Tables 1 -10. The data in Table 1 show that in 1989 the value of real GDP was less than three-quarters of what it was in 1976. Between the eve of independence (1965) and the oil period crisis (1973) the rate of growth of real GDP was approximately 2.9 per cent per annum. Between 1973 and 1980 the rate had declined to approximately one per cent by annum. For the period 1980 - 1987 growth was negative at minus 2.7%. The annual growth rates of GDP in 1988 and 1989 were -2.9%, and -3.3% respectively. The per capita level of real GDP in 1989 was approximately 71 per cent of the level attained in 1976. This very weak growth performance is mirrored in the behaviour of electricity and oil utilization which are the principal forms of energizing production in the economy. Electricity output in 1989 was only 180 million kilowatt hours, that is, approximately 46 percent of the output produced in 1976. The volume of oil imported in 1988 was 2.5 million barrels of refined equivalent. This was approximately two-thirds of the volume imported in 1976. Behind the negative growth since 1980 lies a severe crisis of production and productivity brought on by a host of managerial, technical, labour, organisational, and financial problems. The trend in the physical output for the country's three main products shown in Table 2 reveals this situation. Comparing the average output for the period 1988 - 89 with that of 1970, we find that sugar output in the latter period was only equal to 54 per cent of the earlier level, for rice the ratio

TABLE 1

SELECTED GROWTH STATISTICS

Col. 1 Year	Col. 2 Real GDP (Total) ($ million) (Guyana)	Col. 3 Real GDP (Per Capita) ($ Guyana)	Col. 4 Electricity Output (Mn. Kilowatt Hours)	Col. 5 Imports of Refined Oil ('000 Barrels)
1976	1066	1432	392	3965
1977	1000	1353	336	4290
1978	990	1329	409	4590
1979	976	1301	407	4100
1980	992	1305	241	4347
1981	989	1296	424	4452
1982	886	1161	339	2840
1983	804	1035	224	2604
1984	821	1117	236	2650
1985	829	1109	230	2660
1986	832	1100	226	2500
1987	835	1087	215	2518
1988	813	1071	218	2504
1989	786	1020	180	N.A.

Note: GDP at factor cost.

Source: Various Government of Guyana, IMF, IBRD and IADB Reports

TABLE 2

SELECTED PRODUCTION DATA (tonnes)

Period	Sugar	Rice	Dried Bauxite*	Calcined Bauxite	Alumina
1970	311	142	2290	699	312
1975	300	175	1350	778	294
1980	270	169	1027	601	246
1981	301	166	998	531	170
1982	292	182	784	392	73
1983	256	148	744	315	Nil
1984	246	180	759	517	Nil
1985	247	156	1050	487	Nil
1986	249	183	979	441	Nil
1987	225	147	885	426	Nil
1988	169	130	904	401	Nil
1989	167	112	979	297	Nil

Sources: Government of Guyana and Bank of Guyana, Statistical Bulletin, December 1989

Note : * = Dried and metal grades + chemical grades + kaolin grades

was 85%, for dried bauxite 41%, and for calcined bauxite 50 per cent. In addition, the alumina plant has remained closed since 1983.

Selected external statistics are shown in Table 3 and these confirm the indications cited above. Thus if the averages of the periods 1988 - 89 and 1980 - 81 are compared, we find that both the absolute value of merchandize exports and imports had declined (by 46 and 45 per cent respectively). In addition the merchandize and current account balances were in deficit; the latter ranging in size from 21 per cent of GDP in 1984 to 44 per cent in 1989. The trend in the terms of trade also shows a decline, thereby reinforcing the negative aspects of the production and productivity crisis. Thus the terms of trade in the period 1988 - 89 was about 20 per cent below that of the base year 1977, and 14 per cent below that of 1980.

Selected public sector statistics are shown in Table 4. While these reveal high levels of government revenue and expenditure relative to GDP, for almost the entire period government was dissaving on current account; this ranged from - 11 per cent of GDP in 1980 to -37 per cent in 1984. Only in 1989 was there a small current account surplus of one per cent of GDP. The overall accounts were, however, in deficit for the entire period, ranging from the high of - 52 per cent in 1984 to -28 per cent in 1989. The internal publicdebt naturally grew at a rapid rate. This peaked at 376 per cent of GDP in 1983. In 1989 this was still at 219 per cent of GDP in 1989. At one stage the debt situation had generated such a serious cash-flow problem for the government, that debt repayments exceed tax revenue collections. This led to a major re-scheduling of the internal debt. The data also reveal one aspect of the contraction of the public sector occasioned by the difficult fiscal circumstances. This is shown in the employment data. Between 1980 and 1989 overall public sector employment fell by 32 per cent. The fall in central government employment was even sharper (48 per cent). In

TABLE 3

SELECTED EXTERNAL STATISTICS ($ MILLION US)

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1. Merchandise Exports (f.o.b.)	389	347	242	193	217	213	210	242	215	206
2. Merchandise Imports (c.i.f.)	392	430	282	246	215	255	260	262	216	212
3. Merchandise Trade Balance	-3	-83	-40	-53	+2	-42	-50	-20	-1	-6
4. Current Account Balance	- 129	-184	-141	-158	-95	-131	-141	-110	-94	-109
5. Net International Reserves	-207	-267	-362	-352	-663	-482	-549	-611	-631	-639
6. Current Account Deficit as (%) of GDP at current factor cost	22	32	29	32	21	28	27	32	26	44
7. Terms of Trade (1977 = 100)	92.1	86.4	81.7	72.4	76.5	72.3	82.2	85.1	80.0	78.8

Note : The trade data are given in US$ in order to eliminate the exchange rate effect on local dollars.

Source: Government of Guyana, IMF, IBRD and IADB Reports; and World Debt Tables, IBRD, 1989/1990.

TABLE 4

GUYANA: SELECTED GOVERNMENT STATISTICS

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
1. Current Revenue (as % of GDP)	30	35	38	39	38	40	43	48	53	69
2. Current Expenditure (as % of GDP)	41	50	53	66	75	58	56	75	60	68
3. Current Savings (as % of GDP)	-11	-15	-15	-27	-37	-18	-13	-27	-17	+1
4. Capital Expenditure (as % of GDP)	22	25	23	19	18	18	28	22	33	47
5. Overall Deficit (-) or Surplus (+)	-32	-39	-38	-46	-52	-34	-40	-49	-38	-28
6. Internal Public Debt (as a % of GDP)	123	135	221	318	376	332	335	279	277	219
7. Public Sector Employment, of which,	98,848	86,226	77,527	75,006	73,258	75,947	74,048	74,573	68,322	66,928
(Central Government)	(42,000)	(29,981)	(27,502)	(28,096)	(28,686)	(28,686)	(28,650)	(27,411)	(24,391)	(22,034)

Note 1. In 1988 and 1989 there were significant capital revenue items.

Note 2. GDP is at factor cost

Source : Government of Guyana, IMF, IBRD and IADB Reports.

addition the build up of arrears and serious declines in foreign exchange inflows led to the drastic curtailment of public sector investment activity, uncompensated for by external capital inflows.

Table 5 shows data on money supply and credit. Between 1980 and 1989 the total money supply grew by the staggering factor of 10. Between 1988 and 1989 alone it grew by 60 per cent. The increase in the "narrow" money supply was even larger than the total money supply, rising from G$323 million in 1980 to G$5.5 billion in 1989, an increase of 17 times. The quasi money grew by a more moderate factor of 6. Domestic credit from the banking system patterned this development. It increased from approximately G$1.5 billion in 1980 to G$24.6 billion in 1989. It should be noted that only a small fraction of this was credit extended to the private sector, in 1989 the fraction was ten per cent of the total. This is in keeping with the miniaturizing of the private sector which has been occurring since the early 1970s. At its peak the government's claimed to own or control 80 per cent of the national economy.

These remarkable circumstances are further highlighted in the external debt statistics presented in Table 6. These show the stock of external debt outstanding in 1989 at US$1.9 billion, which yields one of the highest per capita external debt levels in the world, for countries with a significant external debt. The value of the external debt in 1989 equalled 540 per cent of current GNP. This can be compared with a ratio of 140 per cent in 1980 and a peak level of 678 per cent attained in 1987. As a percentage of the export of goods and services the debt peaked in 1989 at 734 per cent. Turning to its composition we find that longer term debt averaged about 60 per cent of the total in 1989, while arrears on this debt peaked at one billion US dollars in 1988. Due to re-schedulings this was brought down to US$431 million in 1989.

TABLE 5

GUYANA: MONEY SUPPLY AND DOMESTIC CREDIT (G$MILLION)

PERIOD ENDED	TOTAL MONEY SUPPLY	NARROW MONEY	QUASI MONEY	DOMESTIC CREDIT* of which (private sector)
1980	850	323	527	1462 (197)
1981	997	352	645	1812 (263)
1982	1269	437	833	2495 (316)
1983	1534	508	1026	3192 (382)
1984	1816	621	1195	4438 (465)
1985	2170	740	1430	5387 (521)
1986	2615	885	1730	6391 (672)
1987	3843	1287	2556	8247 (975)
1988	5416	1981	3435	13200 (1592)
1989	8667	5542	3125	24610 (2573)

Source: Government of Guyana, Bank of Guyana Bulletin, December 1989

Note : * = Domestic credit of the Banking System i.e., commercial and central banks

Table 6

PUBLIC AND PUBLICLY GUARANTEED EXTERNAL DEBT (US$ MILLION AT END OF PERIOD)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989[1]
1. Total Debt Stocks	767	847	931	1181	1243	1453	1583	1673	1647	1848
2. Long-term Debt	571	639	675	693	674	750	826	916	905	1101
3. Short-term Debt	110	109	158	399	486	612	657	646	633	N.A
4. IMF Credit	86	99	98	89	82	91	100	116	110	N.A
5. Total external Debt, % of										
- exports of goods and services	187	228	349	522	504	554	641	593	624	734
- G.N.P.	140	166	218	278	353	400	401	678	522	548
6. Arrears on Debt	-	34	126	270	432	646	791	921	1031	431

Source: World Bank Debt Tables, 1989/1990

Note : 1 - Preliminary

Finally Table 7 shows selected price statistics. There we find evidence of exceptionally high inflation rates. The urban consumer price index grew by a factor of 9 between 1980 and 1989. In 1989, the year of a major devaluation of the Guyana dollar, when the exchange rate moved from G$10 to US$1 to G$33 to $1US the urban consumer price index is estimated to have risen by nearly 90 per cent. Indeed in July of that year the government "suspended" the compilation and publication of the consumer price index. The figure cited for 1989 is an estimate based on partial indicators. The movement of the implicit GDP deflator mirrors these inflationary developments as this index rose from 68 in 1980 to 375 in 1989. The data on interest rates show that these were generally stable between 1980 and 1988. They were increased dramatically in 1989 at the start of the government's Economic Recovery Programme (ERP) which is discussed later. Thus the Treasury Bill rate trebled in 1989, the discount rate grew by a factor of 2.5, and the increase in the prime lending rate was just marginally below this. Wage data in the form of the official minimum wage are shown in this table also. Movements in this minimum wage are significant, becuase it is conservatively estimated that about 25 - 30 per cent of wage workers receive this sum or less. The trend shows that the minimum wage increased by a factor of 3 between 1980 and 1989. By any standards this is indeed a very small increase compared to the rise of the urban consumer price index by a factor 9 over the same period. The reduced real income at the disposal of a large sector of the population underscores the immiserizing growth conditions referred to earlier.

The above analysis is based on the official recorded data. There has been over the period under consideration a rapid rise in the parallel/informal/blackmarket sectors in Guyana. Thomas (1989) estimated the size of the black market as an average of the years 1982-1986 using five measures.

TABLE 7

SELECTED PRICE STATISTICS

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	
1. Urban Consumer price index[1]	40.9	51.0	61.3	69.4	86.9	100.0	107.9	138.9	194.4	313.2[3]	(368.8)[4]
2. Implicit GDP deflator[1]	63.3	69.2	71.5	75.7	86.7	100.0	113.7	175.9	194.5	374.8	
3. Terms of Trade (1977 = 100)[1]	92.1	86.4	81.7	72.4	76.5	72.3	82.2	85.1	80.0	78.3	
4. Market Exchange Rate[1]	166.6	152.0	141.6	111.3	100.0	99.4	45.9	42.5	15.6	N.A.	
5. Nominal Effective Exchange Rate[1]	94.6	95.9	99.0	110.6	100.4	100.0	94.7	41.7	42.3	N.A.	
6. Real Effective Exchange Rate[1]	86.0	71.4	80.9	94.9	96.8	100.0	94.8	48.8	60.7	N.A.	
7. Discount Rate[2]	12.50	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	55.00	
8. Prime Lending Rate[2]	13.3	15.0	15.0	15.0	15.0	15.01	15.0	15.0	14.8	36.0	
9. Treasury Bill Rate[2]	11.62	11.62	12.75	12.75	12.75	12.75	12.75	10.36	10.83	35.75	
10. Minimum Wage[2]	11.55	12.71	12.71	12.71	15.10	16.00	16.80	23.75	24.94	35.68	

Notes: 1 = Period Average; 2 = End of Period; 3 = Average of January - June as official statistics not compiled and published from that date. 4. IMF estimate based on partial indicators.

Sources: International Financial Statistics, Bank of Guyana Bulletin December 1989.
Various IMF, IBRD, IADB Reports.

These results are summarized in Table 8 below ;

Table 8

Estimates of the Parallel Economy

Period	Parallel Economy as a % of Official
1982-86	39; 61; 69; 59; 68

The significant growth of the parallel economy is intimately connected to the equally significant development of blackmarkets for foreign currency, the eradication of which is one of the principal reasons for the introduction of the cambio-system of foreign exchange management we are reporting on.

This review will end by brief reference to two very important phenomena which should be seen as closely related to the picture emerging from the data cited. One is that the economic crisis which as was indicated is rooted in a crisis of production and productivity has itself been compounded by a remarkable disintegration of the social as well as economic infra-structure of the country. This is revealed in the parlous state of the roads, sea defences, electricity supply, health, education, public communication, pure water, telecommunication, social welfare, housing and sanitation services. Secondly, the stagnating economy, evident from the declines in output and negative real growth, has been accompanied by extremely high rates of inflation. This stagflationary feature of economic performance since 1980 seems to have been worsened in recent months, particularly because of the devaluation of April 1989 and more recently in June 1990, and the failure to date of the government's economic recovery programme to generate any significant growth in real output. For the entire period under consideration here, there has never been any estimates of income - distribution. This makes it difficult to trace the impact of this crisis on different groups and strata. Recently,

however, circumstantial evidence seems to suggest a dramatic broadening of the base of pauperization in the economy and a rapid increase in the categories of "vulnerable" sectors of the population. Recently, Boyd has valiantly attempted to make a very rough estimate of income distribution for 1988 based on extremely limited data, and using a method requiring some truly "heroic assumptions". For what they are worth this estimate is shown in Table 9 below:

Table 9

Estimated Income Distribution in Guyana 1988

	Share %	Total Income Per Quintile (G$ million)	Average Income Per Household (G$per annum)	Household Average Income (G$ per week)
Lowest 20%	7.5	216.8	7,805	150.10
Second Quintile	11.7	338.2	12,176	234.15
Third Quintile	15.7	453.9	16,341	314.25
Fourth Quintile	21.7	627.3	22,583	434.29
Highest 20%	43.4	1254.6	45,167	868.60

Note: Number of household = $\frac{\text{Population}}{\text{Household Size}} = \frac{750{,}000}{5.4} = 138{,}889$

Source: Boyd (1990)

These data have to be seen in light of the following comparisons between the minimum wage and selected commodity prices, shown in Table 10 below:

Table 10

Minimum Wage and Selected Commodity Prices(G$)

Period	Daily Minimum Wage	1lb. Cheese	1lb. Beef	1lb. Chicken	1lb. Fish	1gal. Rice	1Pk. Beans	1Pt. Cooking oil	$1US
October 1990	$43.04	180.00	50.00	62.00	45.00	52.00	50.00	26.00	90

The analysis of this section highlights the broader external and internal contexts which have occasioned the introduction of the cambio system and which will continue for some time to come to condition its operations and provide the criteria for evaluating its effectiveness. In the next section we examine the institutional mechanisms and operations of the system since its introduction.

2. Mechanisms and Operations

Prior to the introduction of the cambios, a multiple exchange rate system existed in Guyana. The two key rates were, the official one and the parallel/blackmarket/street rate. For a short while, a third key rate existed when the commercial banks were allowed in January 1987 to purchase foreign currency at street rates. This was abolished in April 1989, when the government devalued and claimed it had unified the exchange rate. Changes in the official rate since 1975 are detailed in Table 11. The annual average index of changes in the official market rate since 1980 was earlier presented in Table 7. Since 1975, 16 changes in the rate have been recorded, thirteen of them being within the range of G$2.55 to G$4.40 for one US dollar. The last three changes took the Guyana dollar to 10, 33, and 45 dollars for one US dollar. Estimated changes in the parallel/street/blackmarket rate, for the period since 1981 are shown in Table 12. Apart from these two rates, Thomas, (1989), reported five other rates in operation; these, however, covered a relatively smaller range of transactions. In theory the official rate was and indeed is still supposed to be determined in relation to a basket of currencies, as indicated in the Note to Table 11. In practice this has not been followed and the US dollar has been used as the intervention currency.

The cambio system started operation in March 1990 as the government's ERP programme referred to earlier; developed momentum. Its objectives are threefold, namely, to facilitate stabilization of the economy; to enhance the adjustment process through providing the "right" price incentives for demand and supply response in the traded and non-traded sectors; and to facilitate the absorption of the parallel economy by the official economy. Space does not permit a detailed review of the ERP, but the cambio system cannot be fully understood without reference to it. Interested readers can find reviews of certain aspects of it in (Thomas, 1990 a, 1990 b, 1990 c,) and the Commonwealth Advisory Group (1989). The philosophy

Table 11

CHANGES OCCURRING IN THE OFFICIAL CENTRAL BANK G$ MID-RATE AGAINST THE US(1975-1990)

9 October 1975 - 1 June 1981	-	2.55	
	-	3.00*	1981
	-	3.00*	1982
2 June 1981 - 10 January 1984	-	3.00*	1983
11 January 1984 - 5 October 1984	-	3.75	
6 October 1984 - 12 October 1984	-	4.12	
13 October 1984 - 19 October 1984	-	4.15	
20 October 1984 - 26 October 1984	-	4.25	
27 October 1984 - 21 December 1984	-	4.15	
22 December 1984 - 18 January 1985	-	4.25*	1984
19 January 1985 - 8 March 1985	-	4.30	
9 March 1985 - 29 March 1985	-	4.45	
30 March 1985 - 16 August	-	4.30	
17 August 1985 - 11 April 1986	-	4.15*	1985
12 April 1986 - 9 November 1986	-	4.30	
10 November - 15 January 1987	-	4.40*	1986
16 January 1987 - 31 March 1989	-	10.00*	1987
		10.00*	1988
1 April 1989	-	33.00*	1989
15 June 1990	-	45.00	

Source: Bank of Guyana

Note: (1) Prior to 9 October 1975, the Guyana dollar was Sterling linked. From then on to 1981 it was linked to the US dollar. From 1981 it was linked to a basket of currencies (sterling, French franc, German mark, Japanese yen and Dutch guilder) i.e.the currencies of its major trading partners and sources of loans, expressed in US$.

(2) Asterisk(*) refers to end of year rates for 1981-1990.

Table 12

BLACK MARKET RATES G: US$

Year					
1981	annual average		6.50:1		
1982	"	"	8.00:1		
1983	"	"	12.50:1		
1984	"	"	14.00:1		
1985	"	"	16.50:1		
1986	"	"	20.00:1		
1987	"	"	28.00:1		
1988	"	"	37.50:1		
1989	"	"	50.00:1		
1990	January	51.27:1	April 50.27:1	July	74.38:1
	February	52.30:1	May 60.25:1	August	76.93:1
	March	56.02:1	June 66.22:1	September	86.81:1

Note: For years 1981-1989, the rates are based on the typical "Wall Street" rate, i.e. the trading area in Georgetown. The figures are mid-points of the ranges for the month and are based on bills of denomination of either 20, 50 or 100US dollars. For the year 1990, the figures are the arithmetic mean of the daily rates.

of the ERP is not dissimilar from other such programmes promoted by the IMF in developing countries. Basically it attempts to introduce economic measures to correct the disequilibria in the economy, initially through austerity policies which force the government to live within its means, (through eliminating fiscal deficits), and the country as a whole also to live within its means,(by the elimination of the balance of payments deficit and external arrears, and the reduction of the external debt to manageable proportions). These are supported by broader measures aimed at economic liberalization, market deregulation, divestment, privatization, the development of a regime of real interest rates, and as the case under consideration also reminds us, frequent exchange rate changes.

In support of this program, an enhanced structural adjustment facility and a stand-by agreement were entered into with the IMF in July 1990. Under the former, the government is to recieve credits to the tune of 81.5 million SDRs, and from the latter the sum of 49.5 million SDRs. In addition, an innovative Support Group facility was created earlier, in which a group of countries pledged approximately US$1.9 billion to Guyana over the 3 year program period. This allows for the re-scheduling of approximately US$1 billion of arrears, the supply of balance of payments support funds, and the financing of certain categories of commodity importation, e.g. oil. Under the IMF agreement the usual performance targets are set for the Bank of Guyana in relation to its holdings of net foreign assets, net domestic assets, and gross international reserves. Targets are also set for the public sector in relation to its net borrowing, the reduction of external payments arrears, and the incurring of external debt. The package also placed policy probibitions on further restrictions on current external payments and transfers, multiple exchange rate practices, and the introduction of import restrictions for balance of payments purposes. Appendix I provides a summary of the major policies to be put in place, arising from negotiations with the IMF.

In November 1989, the Dealers in Foreign Currency (Licensing) Bill was passed to permit the establishment of the cambio system. This began operation in March 1990. A major intent of the bill was to legalize the blackmarket for foreign currency. This was done by permitting the legal buying and selling of foreign currencies by both bank and non-bank dealers so approved by the Minister of Finance, and threatening sanctions for dealers who continued to operate in the "street". The Act requires dealers to submit regular reports on their activities, and it also prohibits them from engaging in other banking functions, such as lending, borrowing or accepting deposits in foreign currencies. Banks which become authorized dealers under this legislation, are required to establish separate units or divisions for this purpose and to maintain separate accounting and record keeping systems.

Under the Act any holder of foreign currency can sell to any authorized dealer, and similarly any authorized dealer can sell to any customer, such foreign currency as is in its possession, at rates agreed to by the seller and buyer. Dealers are required to display thir buying and selling rates, and the practice is that daily rates are published in the press and radio. At this stage it should be noted, however, that the advertized rates are often not the rates at which trading actually takes place. The Act excludes certain payments and receipts of foreign exchange from passing through the cambios. On the receipts side, these include earnings from sugar, molasses, paddy, rice, bauxite and related products, and telecommunications services. On the payments side these include purchases of petroleum products, wheat, sugar, rice and medical assistance. In addition, special provisions for transactions in Caricom currencies have been put in place.

It is worth noting at this point, that at the time of the introduction of the cambios, exchange control was suspended for the basic travel allowance, as well as for certain minor items of expenditure, such as payments for correspondence courses, periodicals, magazines and subscriptions

to professional bodies, clubs, etc. A number of items were also removed from the list of prohibited imports and in place of these consumption taxes and import duties are levied. Certain exemptions from the payment of import duties and consumption taxes were also removed, e.g. imports of agricultural, forestry and mining equipment. Finally, an export duty of one per cent is now levied on certain exports.

Currently there are 24 dealers, 5 banks and 19 non-banks. Returns to date show that the banks control by far the largest share of the market. The major currencies traded in are the US and Canadian dollars, and pound sterling. In the 22 weeks of operation up to August 18, 1990, the total value of purchases for each currency was US$29.6 million, Can.$1.2 million; and pound sterling 1.7 million. The US dollar therefore accounted for about 90 per cent of all purchases. Table 13 below summarizes the basic distribution.

Table 13

Cambio Transactions

Item	Value of Transactions Up to Aug.18, 1990 $US Million Purchases	Sales	Value of Transactions Up to Aug.18, 1990 $ Canadian Million Purchases	Sales	Value of Transactions Up to Aug.18, 1990 £ Sterling Million Purchases	Sales	No. of dealers up to Aug 18,1990
Banks	24.13	23.28	1.04	0.99	1.36	1.25	5
Non-Banks	5.50	5.28	0.20	0.18	0.31	0.29	19
Total	29.63	28.56	1.24	1.17	1.67	1.54	24

The data show that the reported turnover of funds is high, with sales averaging 96 per cent of purchases over the first 22 weeks. Projected purchases of currencies have been annualized on two bases; first on the basis of the average to date being sustained, and then secondly on the basis of the last week in July, which was taken as the most representative week. These project annual purchases of all currencies to be the equivalent of about US$80 million, and US$76 million respectively. These figures can be compared with an estimated blackmarket size of US$40 - US$100, million reported by Thomas (1989) for the year 1986. In the course of our research, discussions with knowledgeable persons suggest that significant under reporting exists. Estimates of the market size which have been cited are close to that of Thomas' later estimate for 1989 of US$250 million (Thomas 1990a). The internal evidence in the reported data seems to confirm the view of a significant under-reporting by the private dealers operating on their own account or from small businesses. It is widely believed that many of these are using the cover of their dealerships to accumulate foreign currency on their own account and not to "oil the wheels of industry and commerce" generally, as was the original intention. Indeed, several of the present dealers were well known blackmarket/parallel/street market traders of the earlier periods. Weekly returns of many of this type of dealer show a trading status in which their opening and closing balances are very small. It is not surprising therefore, that in discussions the view has been strongly expressed that the official reports of the non-bank dealers on the value of their transactions represents only the "tip of the iceberg" of actual transactions. Some of these do not even pass through the dealership. To date these allegations have not been made against the bank dealers. Of passing interest is the continuing phenomenon of street trading, sometimes at rates marked down from the cambio rates! Our expectations are (and there is evidence that this is already taking place) that this phenomenon will disappear as transactors move along the learning

curve. There is clearly no rational reason for selling currency in a regular way in illegal markets, at rates below the legal ones.

Available data indicate that the five banks account for about 85 per cent of the purchases of all currencies. Because of the significant under-reporting just discussed, the banks position as presented in Table 13 is a distorted one. Nevertheless, it is worth noting that the largest dealer is in fact a bank which alone accounts for about 40 per cent of all purchases, and just under half of all purchases by the bank dealers. The concentration of the reported business among the banks is therefore further reinforced by the concentration within the banking category. Overall, the leading one-third of the dealers account for over 92 per cent of all transactions. Before leaving this review it should be observed that the annual licensing fee which the dealers have to pay(approximately $300US) is an insignificant fraction of the projected annual value of transactions.

Table 14 below shows the distribution of transactions by value and transactor, for the week ending July 27, the representative week. There it can be seen that public sector participation in the system is negligible. However, in the week ending August 18, the latest for which we have detailed date, public sector agencies bought just over 15 per cent of the US dollars and 10 per cent of the £ sterling. The reason why the data for this week have not been used as representative of any patterns will be discussed later.

Table 14

Distribution by Transactor: Week Ending July,1990

Item	Purchases From (% of Total)			Sales To (% of Total)		
	$US	$Can.	£	$US	$Can.	£
Individuals	60	98	77	73	77	96
Private Business	32	1	22	23	22	-
Public Sector	9	-	-	4	-	4

Note: - means negligible

Within the private sector, the transactions of private individuals far out weigh those of private businesses category. Whether this has arisen because of the way in which the data are categorized is not known. If, however, it cannot be explained in this way then a possible linkage to "capital flight" may be evidence here.

Before turning to the time series data on the cambio exchange rates, we should note the spread between the buying and selling rates shown in Table 15. These reveal that for the sample week, the spreads between the highest and lowest rates are very wide indeed. In our view it would be unrealistic to expect that these can

Table 15

Spread of Average Rates: (Week ending July 27, 1990)

Highest Average Rate: Purchase (Sales)			Lowest Average Rate: Purchase (Sales)		
$US	$Can.	sterling	$US	$Can.	sterling
83.00	66.47	139.40	71.80	51.20	101.80
(84.00)	(68.00)	(142.42)	(73.40)	(52.20)	(102.80)

Note: Guyana dollars per unit of foreign currency. The highest and lowest average rates are those among the 24 dealers for the week in question.

be sustained in practice, because of the huge profits to be made in round-tripping. The explanation seems to be that the reported rates are not the effective rates at which transactions are indeed concluded. The data nevertheless show that the spreads between buying and selling rates among all the dealers range between G$0.5 and G$7.40 . For the banks, however, which are the major dealers, the spread is usually only one to one and a half Guyana dollars.

The last week for which we have data (August 18) coincides with a well publicized and concerted effort by many of the dealers to appreciate the Guyana dollar. As we shall see this effort quickly collapsed. This period is referred to in the text as the "August hiccup". Table 16 shows the spread of average rate in that week.

Table 16

Spread of Average Rates (Week ending August 18, 1990)

Highest Average Rate: Purchases(Sales)			Lowest Average Rate: Purchases(Sales)		
$US	$ Can.	£ Sterling	$US	$ Can.	£ Sterling
85.00(88.0)	70.00(72.00)	151.70(157.00)	55.00(55.20)	40.00(42.00)	85.00(85.50)

Note: This week is affected by what is termed in the text the "August hiccup" i.e., when the banks sought to guide the market to a substantial appreciation of the Guyana dollar.

Table 17 shows the weekly and monthly average rates for the US dollar in all the cambios from the inception and up to September 19, 1990. The trend in these data is clearly revealed in Diagram . The weekly rates were computed from 124 daily observations of working days in a Monday to Friday week. The monthly rates were obtained from the same sample. From the data we can observe a very distinct trend in the rapid depreciation of the Guyana dollar. Between Week 1 and Week 27 the amount of Guyana dollars required to purchase one dollar US rose by 56 per cent. Within this overall and dominant trend there were, however, four sub-periods which should be observed. After the establishment of the cambios, by the second week of operation the Guyana dollar has depreciated by about 7 per cent only to rise by 5 per cent in the third week to G$57.09 for one US. If this first sub-period is treated as the establishment phase, we observe in the next period that the exchange rate uniformly depreciated between Week 3 and Week 21, when the exchange rate peaked at $85.23 for one US dollar. The depreciation of the exchange rate in the two weeks leading up to Week 21 was quite rapid, averaging more than one percentage point per working day.

In the third period, some of the major dealers "decided" that this rate of depreciation was too rapid and after meeting they announced a trading rate of G$55 to one US dollar for Week 22. This rate did not survive the week. Its implementation would have resulted in substantial capital losses for those institutions which had bought at the previous much higher rates. The decision taken by the dealers

also ignored the fundamental disequilibrium in the demand and supply of foreign exchange in the economy. The week in which the dealers sought to enforce the new rate, I have labelled the "August hiccup". In that week the rate "fell" from the peak of G$85.23 to G$63.20 for one dollar US, i.e. an appreciation of 26 per cent. It was reported to us that during this week very few transactions did in fact take place at the advertized rate, in contrast to the "official" stance of the dealers. By week 23 the rate had depreciated by 29 per cent to G$81.29 to one US, and

Table 17

Cambio Exchange Rates (G$per US dollar)

Period	Overall Cambio Rates	Period	Overall Cambio Rates	Period	Overall Cambio Rate
Week 1	55.88	Week 15	67.99	Month of March*	
" 2	59.99	" 16	68.96	" " April	57.93
" 3	57.09	" 17	69.88	" " May	59.96
" 4	57.55	" 18	71.94	" " June	65.26
" 5	57.70	" 19	76.75	" " July	73.23
" 6	58.24	" 20	84.15	" " August	78.73
" 7	58.70	" 21	85.23	" " Sept.*	85.92
" 8	59.11	" 22	63.20		
" 9	59.88	" 23	81.29		
" 10	60.54	" 24	82.56		
" 11	61.44	" 25	84.09		
" 12	62.78	" 26	86.22		
" 13	64.46	" 27	87.25		
" 14	66.50				

Note *= part of month

Number of observations: 124; begining March 19,1990 and end 19/9/1990.

Weekly Rate = Average of all cambios for all working days in a Monday to Friday week.

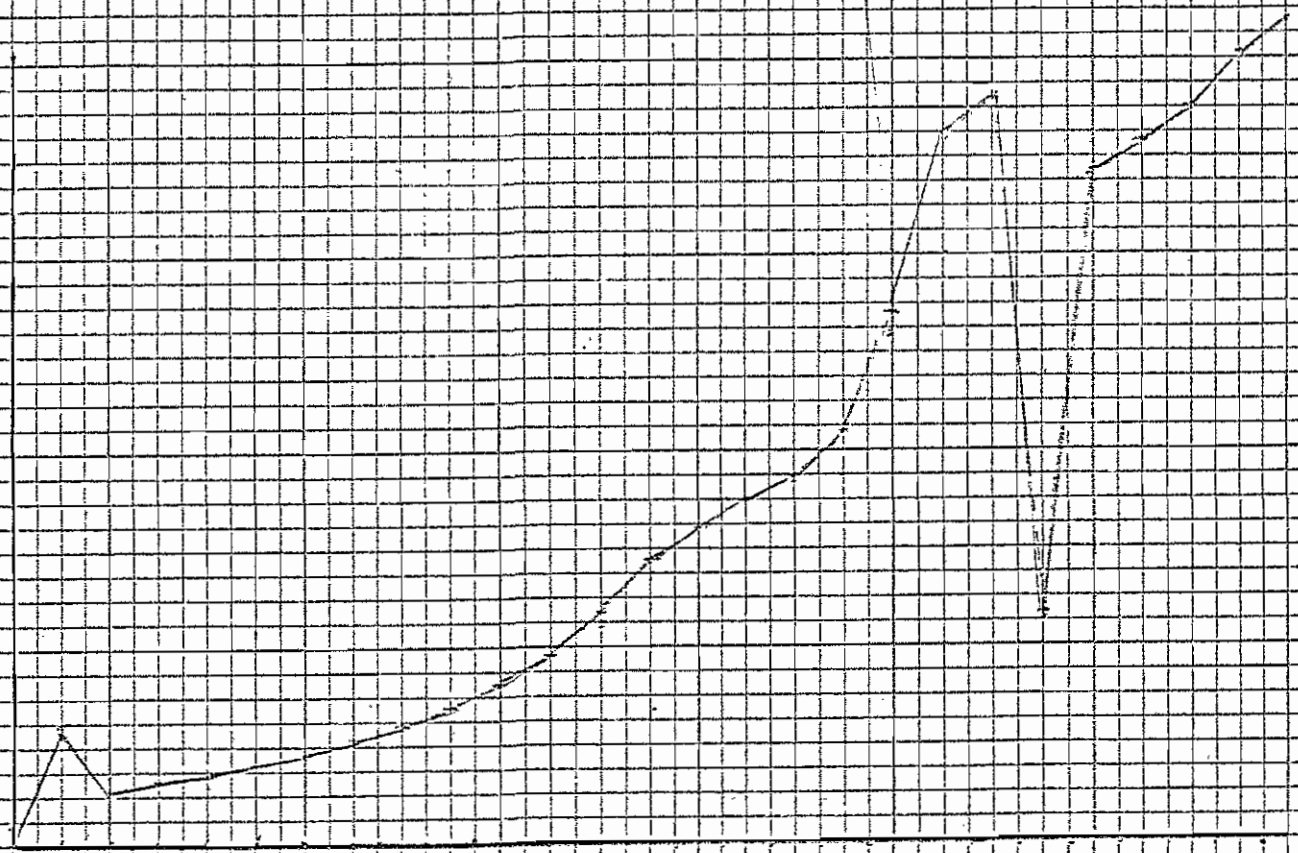
Monthly Rate = Average of all cambios for all working days in a Month.

Arithmetic Mean = 69.34

Range: Mimimum = 55.88 Maximum = 87.25

Variance = 115.99 Standard Deviation = 10.77

DIAGRAM I. WEEKLY CAMBIO Rates



has continued the pattern of a uniform depreciation. Recent data obtained from the nine dealers whose rates are advertized in the daily press show average rates of Guyana dollars per US dollar of G$ 89.50, G$90.00,respectively for the two weeks ending October 5.

When the data are presented as monthly averages the overall trend of a depreciating exchange rate is quite noticeable (Table 16). In effect therefore,the Ausust "hiccup" was definitely a very transitory phenomenon.

3. Rationale and Evaluation

The core of the rationale for the cambio-system of foreign exchange management is derived from three major areas of the neo-classical theory of foreign exchange and monetary management in developing open economies. These are:

- the determination of the parallel/blackmarket/ street exchange rate behaviour and its likely efficiency as a resource allocator using the Efficient Market Hypothesis (EMH) test;
- the effectiveness of devaluation as an external and internal adjustment instrument; and as an extension of this,
- the effectiveness of flexible, market determined exchange rates in achieving external and internal balance.

We shall consider each of these briefly and evaluate their efficacy in the context of Guyana.

1. Determination and Efficiency of the Cambio Rate

This sub-section introduces the model of the cambio rate determination and the equation to be used for estimating purposes, when the data become available.

In an earlier study of the foreign exchange rate black market in Guyana, Thomas reported that the neo-classical model of the street, parallel or blackmarket rate determination sought to bring within a single framework, phenomena which were previously studied separately, under the rubric of smuggling, rent-seeking and blackmarkets. The existence of foreign exchange restrictions was seen as a necessary condition for the emergence of foreign currency blackmarkets.(Thomas,1989). Thereafter, the analysis followed the requirements for optimization if the importer and exporter were constrained by the scarcity of foreign exchange, its administrative allocation, the benefits and risks of smuggling goods, and the benefits and risks of dealing in black currency markets. There Thomas reported that this approach was plausible only if perverse conditions in the foreign exchange market did not exist, so as

to ensure the intersection of the demand and supply curves for foreign exchange, and that parametric shifts in these curves did not occur in the absence of market stability, after policy variables were introduced. He also pointed out that the role of expectations, the behaviour of economic actors, and the policies pursued by the authorities were also to be "appropriate", if this model was to hold. In the context of the "economic pathologies" listed in Guyana, it was doubtful, he argued, if these conditions for market stability would prevail.

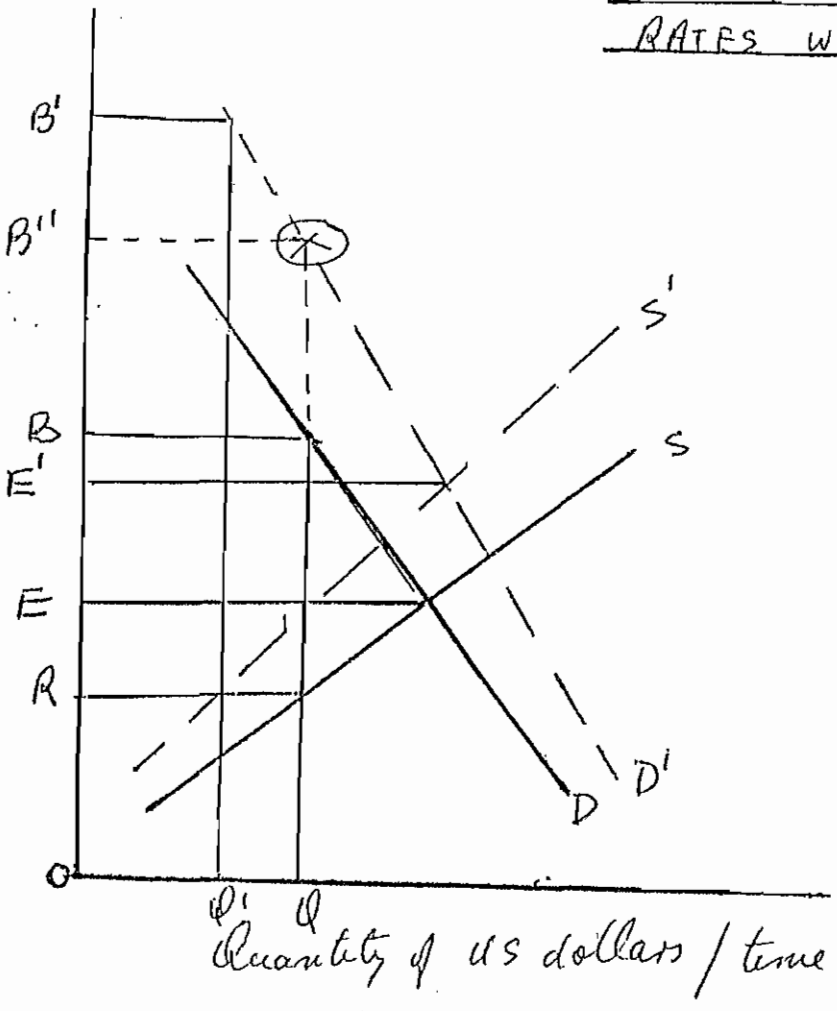
Following Culbertson we propose to develop a simple model of the determination of the cambio rate (Culbertson, 1989). In this model we shall assume that the cambio rate has in effect "replaced" the previous blackmarket/street rate. As was mentioned earlier, this is not strictly true, for although the cambio rate is the street rate, and despite the considerable official tolerance exhibited in recent times, another "street" rate persists, sometimes irrationally below the "official" cambio street rate! This phenomenon can either be dismissed as a quirk, or the price existing treated as a percentage mark-up or mark-down on the cambio rate. In principle it does not seem to validate the premises of the model outlined below.

In the model the demand for foreign exchange in the cambio, D_F can be seen as a function of the cambio exchange rate itself, and the equilibrium exchange rate R_e, i.e., the rate which would clear the market in a sustained manner. For convenience this equilibrium rate can be interpreted as reflecting the purchasing power parity of the Guyana dollar, and following Culbertson this can be proxied by the ratio of domestic to foreign prices.

The economic rationale for the above can be seen in the simple case of a supply and demand schedule for foreign exchange, when domestic inflation proceeds at a faster pace than world prices. In that situation, ceterus paribus, the equilibrium rate would depreciate, so that as in Fig.1, the

Fig. 1

THE EQUILIBRIUM and BLACKMARK
RATES WITH INFLATION



In the diagram above the supply and demand schedules shift to the left and right respectively to reflect domestic inflation in excess of world inflation, in the absence of any devaluation. E is the original "equilibrium" rate and E^1 the new one. At the official rate R^1, OQ foreign exchange was originally supplied "leading" to a blackmarket rate B. With the official rate still R, only OQ^1 of foreign exchange can now be supplied, "leading"to a new blackmarket rate B^1. The proportionate increase in the blackmarket rate $\frac{BB^1}{OB}$ is greater than that of the equilibrium rate $\frac{EE^1}{OE}$. In fact the proportionate increases in the two rates will only be equal if there is a devaluation proportionate to the excess of domestic inflation over world inflation. This would leave the supply of foreign exchange unchanged at OQ so that the blackmarket rate is now B^{11} instead of B'. The size of the blackmarket premium also depends on the extent to which R overvalues the domestic currency and the costs of transactions in the blackmarket.

supply schedule for foreign exchange shifts to the left, therefore resulting in the fixed official exchange rate intersecting the new schedule at a lower quantity of foreign exchange, if, as we assume there is no devaluation of the official rate. The prior equilibrium rate would depreciate by the extent of the increase in the ratio of home to world prices but the street rate would depreciate by more since the unchanged official rate generates a smaller value of foreign exchange for distribution, thereby raising the premium on the street rate.

We therefore have as the demand function:

$$D = f\ (R_c, R_e) \qquad \ldots\ldots\ldots \qquad (1)$$

where R_c is the cambio rate and R_e the equilibrium rate.

In the model the supply of foreign exchange to the cambio would depend on the following:

- the official exchange rate R since it is at this rate most of the major foreign exchange sectors earn;
- the equilibrium rate (as determined by the home to foreign price ratio indicated above);
- the size of the premium between the official and the cambio rate, R_c/R; and,
- the level of reserve holdings by the Bank of Guyana, L. (When the Central Bank builds up reserves the supply of foreign exchange diminishes and vice-versa, assuming of course that this is not done <u>through</u> the cambios. If it is done through them, then the supply of foreign exchange can be treated as the supply available to economic agents other than the foreign exchange reserve authority).

The supply function S, is therefore:

$$S = g\ (R\ , R_e, R_c/R\ ,\ L) \quad .\ \ \ldots\ldots\ \ ) \quad (2)$$

Expressing all variables in log form we have

$$D = a_1 \ln R_c + a_2 \ln R_e \qquad \ldots\ldots \qquad (3)$$

$$S = b_1 \ln R + b_2 \ln R_e + b_3 \ln (R_c - R_e) + b_4 \ln L \ \ldots\ (4)$$

Since in equilibrium $D = S$, we can set relations (3) and (4) equal to one and other and solve for R_c

$$R_c = \frac{b_1 - b_3}{a_1 - b_3} \ln R + \frac{b_2 - a_2}{a_1 - b_3} \ln R_e + \frac{b_4}{a_1 - b_3} \ln L \ \ldots\ (5)$$

Following Culbertson, expectations about the coefficients would be as follows:

- the demand for foreign exchange in the cambio will evolve negatively with the cambio rate and positively with the equilibrium rate;

- the supply of foreign exchange to the cambio will be positively related to both the official rate and the size of the cambio rate premium, and negatively to the equilibrium rate and the level of reserves. In other words, the higher domestic inflation rate leads to overvaluation of the currency at the official rate and a reduction therefore of the quantity of foreign exchange earned.

The expected signs of the coefficients would therefore be as follows;

$a_1 < 0$ $\qquad$ $b_1 > 0$

$a_2 > 0$ $\qquad$ $b_2 < 0$

$\qquad\qquad\quad$ $b_3 > 0$

$\qquad\qquad\quad$ $b_4 < 0$

The expected signs of the composite coefficients would then be as follows:

$$\frac{b_1 - b_3}{a_1 - b_3} \gtrless 0 \quad ; \quad \frac{b_2 - a_2}{a_1 - b_3} > 0 \quad ; \quad \frac{b_4}{a_1 - b_3} > 0$$

The estimating equation to be used is given in (6) below:

$$\ln R_{ct} = \emptyset_1 \ln R_{et} + \emptyset_2 \ln R_t + \emptyset_3 \ln L_t + u_t \quad \ldots \quad (6)$$

The Cambio rate, R_{ct} (as the dependent variable) is a series of monthly/quarterly observations of the rate and assumed to have replaced the earlier street rate before its introduction. The equilibrium rate, R_{et} is the parity exchange rate as measured by the ratio of the Guyana consumer price index to the US consumer price index. The official exchange rate in the series is given as R_t and L_t is a measure of official international reserves, in US dollars.

We anticipate certain difficulties with the application of this model. These are:

- the multiplicity of rates existing in Guyana, and already hinted at;
- the existence of negative international reserves, so that changes in L do not really impact on the availability of foreign reserves;
- the consumer price index being widely recognized as a very inaccurate measure of price changes in Guyana, the dis-continuation of the calculation of this index after its dramatic rise following on the devaluation of April 1989 and the availability since then of only partial indicators;

- government control of 80 per cent of the economy so that markets are not really significant as a trading context for the official rate or indeed in being the contextual frame for asset choices;

- the internal crisis leading to destabilizing expectations and market disintegration; and

- varying degrees of intensity in the policing of the blackmarket for goods and currency, which is not catered for at all in this model.

In relation to the "efficiency" indicator we test the weak form hypothesis of the efficient market and the associated random walk tests of rational expectations theory. (Malkiel, 1989). In this analysis an efficient market is one which faithfully mirrors the available set of information, that is all historical price information and current expectations about the future price of the Guyana dollar. The only events which can alter these prices are unanticipated randomly available "news", as it is termed in foreign exchange market analysis. It follows therefore, that no dealer in the market, can through "technical analysis" of the already known, find an investment strategy which earns super-normal profits. Prices in the cambio will in this sense be efficient. The future course of cambio price developments will follow a "random walk" away from current prices. The latter will therefore be the best, unbiased predictor of the former. This proposition will be tested by regressing the log of the current period cambio rate on that of the previous period (month or week!) As EMH analysis points out if the cambio rate is an unbiased forecast of the rate in the subsequent period then the intercept in equation (7) below should not differ from zero, the b coefficient should not differ significantly from unity, and the errors U_t will be randomly distributed about a mean of zero, so that the residuals or errors from the estimated equation should not be serially correlated.

$$\ln R_{ct} = a + b \ln R_{ct-1} + U_t \quad \ldots\ldots (7)$$

II. Devaluation and the Balance of Payments

As an adjustment device, the central premise of the cambio system is that changes in the exchange rate will lead, more or less smoothly and efficiently, to the basic objectives of exchange rate policy in Guyana. While these objectives can be summarized as development of the economy as a whole, the neo-classical consensus is that the proximate objectives are: internal balance, external balance and micro-economic efficiency (Collier and Joshi, 1989). Because the exchange rate directly influences the general price level and the relative price of major sectors, and indirectly affects the level of aggregate activity, the objectives of internal balance are measured in relation to target employment, output (income) and inflation levels based on national trade-off preferences. Given that trade restrictions are not being used as a balance of payments corrective mechanism and given also the inherited levels of external debt, arrears, the time profile for repayment, the possibilities of rescheduling etc., external balance is measured in terms of a target level of sustainable current account deficits (consistent with a realistic projection of capital inflows over the medium term). In the longrun this means that the net balance on current account should equal the interest on net foreign debt. Finally, micro efficiency is the measure of the extent to which the exchange rate improves or worsens resource allocation. The rate itself affects the degree of uncertainty among economic actors and the extent of trade and payments restrictions required to support economic activity so that its micro influences are felt both on the demand and the supply side in a wide variety of markets.

The nominal exchange rate mediates the real exchange rate, which in turn reflects two price relations, namely, that between tradeables produced at home and abroad (measured in a common currency) and also that between non-tradeables and

tradeables in the domestic economy. Because of the price-taking structure of the Guyanese economy, the latter price relation is particularly relevant. It is in effect the key price in determing resource allocation between traded and non-traded goods and among traded goods also. The former relation is of course one measure of the international competitiveness of domestically produced traded goods. Estimates of the distribution between the traded and non-traded sectors are given in Table 18 below:

Table 18

Guyana: Origin of GDP by Sectors at Constant Prices(%), 1983-9

	1983	1984	1985	1986	1987	1988	1989
Traded Sector	37	39	40	40	39	36	40
Non-Traded Sector	63	61	60	60	61	64	60

Sources: Government of Guyana. Own estimate for 1989.

When appropriate weights are applied we have the real and nominal effective exchange rates. Indices of these were referred to earlier in Table 7.

A survey of the literature suggests that for devaluation to be efficient in improving the balance of payments of Guyana a number of key conditions have to be met:

a) The smaller the rise in the price of non-traded goods the more effective will be the price signals of the devaluation;

b) There is a critical link between devaluation and inflation stemming from the high import-dependence of Guyana-type economies. This dependence transmits to the general price level, (as cost inflation) higher import prices in domestic prices. The weaker therefore, is this transmission mechanism the less the undermining

of the import-substitution and export-competitive gains of devaluation.

c) In price taking economies, the export elasticity of demand and the elasticity of import supply are not particularly significant to the outcome of a devaluation. The two critical elasticities are the price-elasticity of export supply and the price elasticity of demand for imports. Because of the famous Marshall - Lerner condition, the former must be significantly positive if the supply of traded goods is to respond to the price advantages initially created by the devaluation, and the latter also significantly positive if the demand for imports is to decline favourably. Generally, the weaker the elasticities the greater the difficulties and the larger must be the rate movements if there is to be an improvement in the demand and supply responses. Large rate movements however threaten speculative disruptions, increase uncertainty and often stimulate capital flight as a risk - avoiding reaction.

If the above key conditions hold, along with such others as appropriate monetary and fiscal policies, it is expected that devaluation would, inter - alia

- redistribute income to traditional exporters, stimulating their revival, thereby increasing earnings of foreign exchange;
- encourage expansion of activity by non-traditional exporters;
- discourage imports and encourage import-replacement activity;
- create competition for domestic producers (if the devaluation is accompanied with import liberalization) and so improve resource allocation at the micro level;
- drive down the real cost of labour (if wage increases do not keep pace with the devaluation) and so stimulate capital inflows. Already the "minimum wage" in Guyana, which is the largest single wage category in the work force (about 30 per cent of the workforce recieve this wage or less) is the equivalent of only US0.40 per day.

Evaluating these propositions from a Guyana perspective raises a number of serious reservations are mentioned here, but space does not permit the full treatment of all or any of these.

1. Gajadar in his doctoral thesis reports the results of his econometric work as follows: "the results suggest that international inflation or international inflation plus exchange rate movements and labour cost are important factors influencing inflation" (Gajadar, 1989,P215). He goes on to point out that "the level of significance of the labour cost variable suggests that its effect on the inflationary process is not as strong as one would have expected" ibid P.215. Summarizing his results on export elasticity estimates he notes in a recent paper that "the elasticity estimates for exports suggests that supply response is low in the short run, but higher in the long run for most variables except price". (Gajadar 1990, P.25) He stresses as a result the need to pay particular attention to supply conditions and response, claiming that "the justification of this approach rests on the inelastic response of exports to price." ibid P.25.

The above is not surprising given the well known rigidities in the input-output structures of Guyana's enterprises; a situation made worse by the acute and pr tracted production crisis noted earlier.

2. Import elasticities have not been estimated. Generally this has been due to the unavailability of appropriate volume data. However, it is widely recognized that in the Guyana type economy import demand is inelastic for all the major categories: consumer goods, intermediate goods, (raw materials and fuels), capital goods (including spare parts). Recent trends in the economy, especially the sharp depletion of the capital stock, including the staggering deterioration of the social and physical infrastructures and falling real incomes mean that pressure to sustain, and indeed expand current import levels is enormous indeed.

3. A price expectancy pattern has also developed during the crisis in which higher prices stimulate demand in an effort to prevent paying higher prices later. This is true for both household and firms. Associated with this is also the expectation that the exchange rate is nowhere near its true value so that confidence in holding on to local currency and local assets not easily converted into foreign income is also low.

4. Also, as a result of secularly declining real incomes and high levels of migration, remittances in cash and kind play an unprecedented role in the budgets of households and small enterprises. This creates its own preference for the exchange rate to continue its depreciation, because of money-illusion, since it affects the cost-of-living also. This makes it very difficult for the authorities to affect absorption by these sectors, through macro policies, when compared other more traditional economies where wage income and returns on financial savings account for almost all of the earnings of labour.

5. This problem facing macro policies in Guyana, along with the price-taking structure of the economy, is made more acute by the reality that the truly effective zone of macro policy influence is in the non-tradeable sectors, and this zone is further limited since the estimates of this sector which were cited earlier include such sub-sectors as, government, construction, electricity, transport and communications, where the role of fuel, transport and labour is very significant. This means that the "non-traded" sector is still strongly linked to world prices. A good example of this is electricity generation where with the breakdown of the public utilities private importation of domestic power supply systems is a significant area of foreign exchange expenditure. This is in addition to the purchase of fuel. Thus while the importance of appropriate macro-management to reinforce policies of changing exchange rates is recognized, the scope for this is quite limited indeed, since the question can be genuinely raised, is there a non-traded goods sector in Guyana?

6. In the simple two - goods model of traded and non-traded goods the efficiency of devaluation as a policy instrument in altering their relative prices depends upon whether prices of non-tradeables are flexible, wage and inflation rate increases are contained to within the proportions set by the devaluation, and there is no money illusion in the commodity and factor markets where excess demand appears. If these conditions hold then devaluation leads to an impact effect improvement of the trade balance. The eventual outcome is then dependent on what happens to the real effective exchange rate, and this would follow the course of policies put in place by the authorities. While the emphasis has been on the overall macro policies, e.g. the size of devaluation, etc., the point has been also made that the methods used by the authorities to achieve particular objectives are also independently significant, even in cases when the objectives are met. Thus in erasing a fiscal deficit Khan and Lizondo (1987) show that in this two sector model, increasing taxes is less favourable than cutting expenditures, while cutting expenditures on tradeables is more efficient than similar cuts in non-tradeables. Generalizing this point to a real world multi-sector economy in the predicament of Guyana, compounds the difficulties of the use of devaluation as a tool of adjustment. It does not make it less complex, as the theory promises, because of the reliance it places on market prices as the corrective mechanism.

7. Another crucial issue is the income distribution effect of devaluation. Clearly, some sectors would gain and others lose after a devaluation, and among the projected gainers it is typical to cite the traded goods sector, the private sector, and owners of capital and among the projected losers it is typical to cite labour, the non-traded sectors and the public sector. The final outcome, however, is not determined in the economic arena alone. If this is recognized thenthe need for conscious social and political choices still exists. Leaving these to the market, would in itself be a political and social policy choice. The market does not create, without deliberate political and social intent, a dynamic balance between the public and private sectors, or between inward and outward growth, or between growth and equity. The presumed simplicity of the devaluation tool is therefore more apparent than real. Proof

of this can be seen in the long history of industrial and labour conflicts following on past devaluations in Guyana.

8. Finally, the claim has been made that devaluation has helped the government's budget. It is true that the increase in the domestic currency value of imports and exports expands the tax base, reduces the level of required transfers to financially strapped parastatals, and increases the domestic currency values of capital inflows. On the other hand, however, the domestic currency value of debt servicing has increased as well as the import expenditure of the government. The full effect cannot be theorized from a priori analysis. An empirical determination is necessary. It should also be recognized that even after this has been done, the issue would still remain; is devaluation the most efficient mechanism for achieving this, particularly when a variety of other alternatives exist?

In conclusion of this analysis one general observation should be noted. Every point made so far is linked to two basic considerations. The first of these is whether or not appropriate macro and monetary policies are in place after devaluation has been made. Because the analysis is premised on this, we can take the case for and against devaluation by itself, only a limited distance. The second consideration is the large body of evidence supporting the view that major systemic economic disorders persist in the economy of Guyana. This situation means that devaluation is not expected to correct a simple balance of payments problem, as the theory expects, but in fact to contribute significantly to the solution of a chronic production crisis marked by exceptionally acute shortages of foreign exchange. Without substantial capital inflows, it would be incorrect to assume that devaluation can contribute to this, without itself leading to even further declines in real income, the destruction of much of the domestic industry which has remained behind protective walls in such an era,and the disintegration of the state apparatus as we know it. Moreover,the production crisis has been

associated with market disintegration, there being no "relaxed" markets in Guyana. Indeed evidence already suggests that exchange price increases may not reduce demand and stimulate supply increases in the way orthodox theory pre-supposes, but a sort of "reverse" expenditure switching has occurred in certain contexts, e.g. when imports become cheaper after devaluation than domestic production, because domestic production has a high import content and productivity has been negatively influenced by the long experiences of the production crisis (the case of the local chicken industry is a good example). This suggests that policies addressed to the conditions of domestic supply needs prior implementation to make it possible for appropriate market responses to exist.

III. The Model

As reported, empirical work has already been done on export supply elasticities, and the elasticity pessimism of this work has been cited above. The other area of neo-classical tests of the efficacy of devaluation, is the monetary model developed by Johnson (1972, 1976) and Mundell ( )and worked on empirically by Connelly and Taylor, (1976, 1979) and Asheghian (1985, 1988). The model tested by us follows Asheghian (1988). The money demand function is:

$$D_M = Vpy \quad \ldots\ldots \quad (1)$$

where V is the fraction of the real value of permanent income y which people wish to hold in the form of cash balances. Domestic prices = p.

The supply of money S_M, is defined as currency plus demand deposits and is equal to international reserves, R held by the banking system and domestic credit C. Thus

$$S_M = R + C \quad \ldots\ldots \quad (2)$$

The purchasing power parity is given as:

$$P = EP^* \quad \ldots\ldots \quad (3)$$

where P^* = world price and E = the official exchange rate.

Permanent income valued at world prices is given as:

$$Y = P^*y \quad \ldots\ldots \quad (4)$$

In equilibrium the demand for money equals the supply, thus

$$D_m = S_m \quad \ldots\ldots \quad (5)$$

Substituting equations (3) and (5) into (1) gives us:

$$S_m = VEP^*y \quad \ldots\ldots \quad (6)$$

and, substituting (6) into (2) we get:

$$R + C = VEP^*y \quad \ldots\ldots \quad (7)$$

Substituting (4) into (7) we also get:

$$R + C - VEY \quad \ldots\ldots \quad (8)$$

$$\text{or} \quad R = VEY - C \quad \ldots\ldots \quad (9)$$

Net changes in international reserves defines the balance of payments B, so that $\Delta R = B$.

We therefore rewrite (9) as follows

$$B = V \Delta (EY) - \Delta C \quad \ldots\ldots \quad (10)$$

Since $S_m = VEY$, we can divide both sides by S_m and get:

$$\frac{B}{S_m} = \frac{\Delta E}{E} + \frac{\Delta Y}{Y} + \frac{\Delta Y}{Y}\frac{\Delta E}{E} - \frac{\Delta C}{S_m} \quad \ldots\ldots \quad (11)$$

Letting $\frac{\Delta Y}{Y} = a$, we get:

$$\frac{B}{S_m} = \frac{\Delta E}{E} + a\frac{\Delta E}{E} + a - \frac{\Delta C}{S_m} \quad \ldots\ldots \quad (12)$$

which can be simplified to :

$$\frac{B}{S_m} = (1 + a)\frac{\Delta E}{E} + a - \frac{\Delta C}{S_m} \quad \ldots\ldots \quad (13)$$

If we assume devaluation causes no change in the rate of growth permanent income valued at world prices, so that a in the period before devaluation $t - 1$ is the same in the period after devaluation, t, the improvement in the balance of payments as aproportion of the money supply is usually presented as:

$$\frac{B^t}{S^t_m} = (1 + a)\left(\frac{\Delta E^t}{E^t} - \frac{\Delta E^{t-1}}{E^{t-1}}\right) - \left(\frac{\Delta C^t}{S^t_m} - \frac{\Delta C^{t-1}}{S^{t-1}_m}\right) \quad \ldots\ldots \quad (14)$$

with a in equation (13) now being zero in equation (14).

If there is no prior change in the exchange rate in an earlier period then ΔE^{t-1} reduces to zero and equation (14) can be reduced to :

$$\frac{B^t}{S_m^t} = (1 + a)\left(\frac{\Delta E^t}{E^t}\right) - \left(\frac{\Delta C^t}{S_m^t} - \frac{\Delta C^{t-1}}{S_m^{t-1}}\right) \quad \ldots \quad (15)$$

In this relation the improvement in the balance of payments is presented as a function of the money stock and exchange rate. The equation which we therefore propose to estimate is:

$$\frac{B^t}{S_m^t} = \alpha\left(\frac{\Delta E^t}{E^t}\right) + \beta\left(\frac{\Delta C^t}{S_m^t} - \frac{\Delta C^{t-1}}{S_m^{t-1}}\right) + u \quad \ldots \quad (16)$$

In the above equation α is the coefficient associated with the rate of growth of devaluation and β the coefficient which is associated with the rate of growth of domestic credit, and u is the error term.

IV. Market Determined Rates as an Adjustment Mechanism

The models of exchange rate behaviour and the effect of devaluation on the balance of payments come together to yield an important part of the rationale for the more general proposition that a system of flexible or floating exchange rates, which are market determined, is the best exchange rate policy in the Guyanese economy. The other elements of the rationale are those directly linked to the neo-classical propositions about the efficacy of floating rates. In this sub-section we look at the main applicable arguments for and against the system and then briefly relate these to certain areas of experience in other areas of the world where such practices have been pursued.

i) Applicable arguments for:

My survey of the local, regional, and international literature suggests that there are ten major arguments which might be advanced in favour of an independent market determined rate. These are presented below in a highly condensed and serial form:

a) It would eliminate the observed weaknesses of past policies, where exchange rate changes have been delayed, substantial over-valuation tolerated, and when rate changes are made these are "inappropriate" in size, timing and sequencing.

b) An independent float would *inter alia* achieve the following:

- a rapid reduction in any over-valuation implicit in the existing rate;
- be more sensitive to differential changes in the rate of inflation in Guyana and abroad;
- ensure greater continuity in efforts to correct the balance of payments disequilibrium, and;
- would be better situated than in any other system to reflect long run trends in the demand and supply for foreign exchange in the economy as a whole, including specifically the non-reporting, under-recorded parallel sectors;

- would end the unofficial, illicit character of the previously existing blackmarkets for foreign currency.

c) It makes balance of payments correction easier, and in this regard is closely linked to the arguments of the previous sub-section.

d) It would insulate the economy from external shocks better than in the pre-existing system.

e) As an extension of (d) it would also permit greater autonomy in formulating and implementing monetary and fiscal policies.

f) In doing the above, it would free scarce management resources in the public sector for other tasks.

g) It would simplify and permit greater consistency in pricing policies since it would replace the practice of taxes and subsidies on exports and imports as a balance of payments corrective device.

h) As an extension of (g) it would facilitate the liberalization of external trade and payments in Guyana. Indeed it might even be argued that its effectiveness is conditional on such liberalization!

i) It would reduce the need to hold large reserves because of quicker and smoother balance of payments adjustment, a result implicit to the earlier arguments above.

j) Last, but by no means least, it would reduce the political costs to the authorities in managing the exchange rate. The system does not lay the responsibility for rate changes on the authorities, as it would appear to reside in the "invisible" hand of the market.

ii) Applicable arguments against:

There are four major arguments which can be advanced against the system, all derivative of the peculiar economic conditions of Guyana. First, disorderly markets have prevailed everywhere, and often in extreme form. This suggests that apart from its longrun trend, a market determined rate would be

unstable. Evidence of this has already been alluded to in Section 2. Regular variability of the exchange rate, let alone instability, is enough to discourage trade, create uncertainty, add to the risks of investment, as well as encourage speculation. In Guyana instability also complicates macroeconomic management and generates general price instability, because of the significant role world prices already play in domestic inflation. It would also make the impact of exogenous shocks on the economy, even stronger. In sum, a flexible rate would not make for easier monetary policy and macro-economic management. The presumed autonomy which this system confers to the authorities is illusory in the Guyana context.

Secondly, a sine qua non for an efficient float is a strong institutional base in the foreign exchange market; an important aspect of this being the development of forward markets. In Guyana this does not exist and theburden is therefore put on the float itself to encourage the institutionalization requirements for its effective operation. The instability of the exchange rate, the failure of the system to fully exploit arbitrage gains, untidy cross rates between currencies, and even the "irrational" persistence of a black-market rate all testify to serious institutional deficiencies.

Thirdly, if exchange rate instability persists as a marked feature of the system two systemic degenerations become inevitable. One is the infamous sequence of exchange rate depreciation - inflation - speculation - capital flight - devaluation. The other is that the exchange rate becomes dis - joined from the real operations of the economy and the market develops as a market for itself with all the casino-type qualities evident in other countries at this stage of degeneration.

Finally, in so far as the currencies in which the external debt and arrears of Guyana are held, do not match the currencies in which foreign exchange is generated through flows which enter into the official systems, and these currencies themselves are floating, both the complications and the cost of debt management can be increased. The force of this consideration lies in the extraordinary levels of the external debt and arrears, now in the process of drastic re-scheduling.

iii) What does experience tells us?

Experience with floating rates around the world suggest a number of important cautions. One is that as UNCTAD(1986) reports even in industrialized countries with fully developed capital markets, the authorities have had more, not less intervention of both the sterilizing and non-sterilizing varieties since floating. Secondly, as the UNCTAD study further reports: "the weighted average month-to-month percentage changes of the nominal and real effective exchange rates of seven major industrial countries were respectively about six and three times greater during 1973-1983 than during 1961-1970"(ibid P.6.) Exchange rate volatility increased in the first half of the 1980s, and by 1989 the IMF was reporting that : "the experience with floating the major currencies has shown considerable variability of both long and short run exchange rates ..... changes in the average annual nominal effective exchange rate of the USA were almost nine times greater under floating rates than during thelast decade of adjustable par values and about four times greater in real effective terms "(IMF 1989,P.5) As Mc Kinnon remarks "relative to profit margins on investment in any one national currency, exchange rate changes have been very large: 1 per cent a day, 5 per cent in a month, and 20 per cent in a year are commonplace" (McKinnon, 1988,P.85).

This evidence of volatility indicates that the need for reserves and financial mechanisms to access these has increased in the period of floating rates and not reduced even in industrialized countries, in contradiction to the theoretical case for floating rates.

Thirdly, the evidence also shows that the mis-match in the currency composition of debt and currency earnings referred to earlier has been both frequent and significant. (UNCTAD, 1986, P.20-22).

Fourthly, statistical tests show that highly developed as they are, forward markets are not efficient, i.e. unbiased predictors of future spot rates. Prediction errors are systematically related to the information available when forward rates, are set. (ibid, P.27-29) McKinnon has also observed that among the smaller independent floaters like Britain and Austrailia fluctuations have not been correctly anticipated by the market. Citing (Frenkel and Mussa, 1980) he points out that these are not reflected "either in interest rate defferentials across countries nor in forward premia or discounts in the exchange markets" (Mc Kinnon, 1988,P.85).

A fifth observation is that where developed foreign exchange markets exist flow demands are secondary to portfolio transactions in stocks. The former are based on current and capital account transactions which are based on exchanges of goods and services. Emphasis on the latter make the casino element of these markets preponderant and in this regard similar to equity and bond markets. The possibility of a disjuncture between exchange rate behaviour and real exchanges in goods and services in Guyana,which was hinted at in the previous section, has in fact been very common elsewhere. Such a development, of course, adds to the potential volatility of the exchange rate.

Finally, the evidence on price behaviour is noteworthy. The prices of internationally traded manufactures have been relatively sticky in comparison to exchange rate changes. The argument has been advanced in relation to the United States that because exchange rate fluctuations have not been offset by the much smaller long run differences in domestic inflation abrupt changes in international competitiveness occurs. (Levich, 1986)

Dispite this sobering experience of floating exchange rates in industrialized countries, as we saw earlier, optimism regarding the efficiency of unrestricted financial markets remains strong, and in some influential quarters this has been elevated to pure dogma. When this occurs in the major financial centres and in particularly the reserve currency countries, little choice is left for other industrialized countries but to follow suit. When this happens the pressures develop even more strongly for the developing countries to follow suit. Those in as vulnerable and exposed a situation as that in which Guyana now finds itself, really have little choice open to them.

V. Conclusion and Evaluation

A number of general points can be made in conclusion of this section. Taking into account the patterns of past development and the real circumstances of Guyana today, the operations of the Cambio cannot be completely isolated from the larger framework of the ERP programme. Taking that programme as a whole, however, and the exchange rate policies of it poses a number of real difficulties of both a developmental and adjustment/stabilization kind. One of these is that the deflationary nature of the package could drive the domestic entrepreneurial class to ruin. Thus in Guyana, real incomes are falling because of higher import prices and general inflation; the cost of borrowing is unprecedentedly high because of the more than trebling of interest rates; and the onset of sudden "competition" following on import liberalization measures have all favoured major deflationary dislocations. At the same time export earnings are declining for unrelated (exogenous) reasons and related (endogenous) reasons, e.g. strikes. Government real revenues and expenditure do not keep pace with its requirements and essential public service inputs (health, education, sea-defences etc.) are declining. All this have led to falling morale, a reduction in social cohesion, increased conflict over the distribution of the burden of adjustment, a dramatic increase in the range and numbers of the vulnerable in the society, and a spread of the process of pauperization from traditional locations (unemployed, disabled, small landless peasants, isolated communities) to non-traditional areas (public employees, security personnel, teaching and health workers, young couples, etc.) Complementing these are the extraordinarily difficult production conditions prevailing in Guyana and the inevitably slow response of output to changes in incentives.

This political - economic - financial model suggests that the cambio and related ERP measures may not only fail to:

- correct the balance of payments;
- stabilize the exchange rate at a sustainable level;
- stimulate a switch to export supply expansion;
- reduce the rate of inflation;
- restore confidence, reduce speculation and capital flight;
- generate international credit worthiness,

but, instead might contrarily generate a perverse cycle of stagflation and depreciation, which is already a marked feature of the system, as noted in the review of the economy in Section 2.

The response of the authorities to this development will be key to the overall results. If the authorities act "appropiately" some damage limitation is possible. However, to date the social amelioration measures they have attempted have been marginal and no significant improvement in the quality of public management has been attained. The flight of qualified personnel has continued unabated, and the demoralization of many of the remaining managers in the public and private sectors is still a widely acknowledged problem to be overcome. There is therefore, a real possibility that the negative political-economic - financial cycle could be reinforced by a reduced willingness of the authorities to resist inappropriate monetary policies, particularly if the proximate effects of this manifest themselves in the cambio-system and so their continued direct responsibility for exchange rate policy is not as obvious to the population at large as before. This possibility is directly linked to the other attitude which the literature on floating rates widely recognizes, that is under a floating system, the political risks to the authorities of a depreciating exchange rate are more often than not, reduced.

There is a school of thought in Guyana which argues that the falling real incomes of the perverse cycle outlined aboveplace a ceiling on the demand for foreign exchange and therefore an inescapable brake on speculation. While falling real incomes in a deflationary situation does constitute a brake on the growth of demand, it should also be recognized that remittances in cash and kind play a major widespread role in the supplementation of domestic purchasing power. To the extent that this is true, the brake on demand is reduced, both in relation to the supplementation of purchasing power and in the form it takes. Because remittances are in foreign currency, domestic recipients would benefit from and indeed might even welcome (because of money illusion) the depreciation of the local currency. If the value of remittances sent are fixed in foreign currency because it comes out of the income of non-residents, then the value of remittances will not be reduced by the extent of the falling exchange rate. In this type of situation, a depreciating exchange rate may be sustained for far longer than is supposed. Additionally, there is the consideration too that if the stock of domestic assets and stored income which wants to be repatriated is large, this would give considerable momentum to exchange rate declines, even if real incomes of householders are generally in decline also.

The overall evaluation of this system therefore is that the exchange rate system in place in Guyana leaves considerable doubt about its effectiveness. Our own preferences are for an alternative approach along the lines of a more managed flexibility so as to ensure that market liberalization of the rate proceeds as closely as possible in tandem with the removal of restrictions on output and the improvement of choices for demanders. The caution expressed here about the float has been echoed many times, even from "impeccable" IMF sources. In his review of the global exchange rate system, Goldstein reported that even though floating rates have not led to a system-wide collapse of trade and payments, nor reduced anti-inflationary resolve among

the major actors, nor indeed worsened employment prospects, they have nevertheless: "not provided complete or even good insulation against all types of external disturbances;[nor] eliminated or even significantly reduced the demand for international reserves; [nor] encouraged enough stabalizing speculation to keep real exchange rate movements within narrow bands corresponding to permanent changes in the terms of trade". (Goldstein, 1984,P.3.)

4. Proposals for Reform

In a recent survey of exchange rate policy in developing countries, it was reported that "there are practically no examples of developing countries which have floated successfully and independently on a sustained basis" (Collier and Joshi, 1989, P103). Recent experience in Jamaica with the auction system confirms this view in the Caribbean region. The experience of the developed countries, which we cited earlier, also raises considerable doubt about successful independent floats there, despite their highly sophisticated economies and market systems. Meanwhile, the limited experience with the cambio system in Guyana already indicates that improvements and reforms are required. Before proceeding to outline our recommendations, it is appropriate for us to underscore the premises on which these are made - even at the risk of some repetition of points made earlier in the text.

Seven major premises underline our proposals. The first is our belief that as presently organized, the cambio-system is feeding a perverse cycle of depreciation - inflation - depreciation, and not resolving it, as is intended. This is mainly due to the failure to address successfully the major systemic disorders of the economy. Their prior correction remains, in our view, a prerequisite for any sustained independent float. Second, while we recognize that there are certain inevitable social costs associated with adjustment, the cambio system seems to be exacerbating these. We refer here principally to three categories of social costs, namely, the recession-type costs, (associated with the system's deflationary impact on output, income, consumption, and exployment); the allocative-type costs, (associated with shifts in production and consumption); and the policy error-type costs, (which can be incurred at every stage of public policy, from

conception to detailed execution).

Third, while we readily concede that the previous (and present) official exchange rate is overvalued, that the authorities past record of exchange rate management leaves a lot to be desired, and that flexibility in exchange rate policy are all essential for any forward movement, we nevertheless believe, that there are intermediate positions between the situation as existed, and what is in effect a precipitate attempt to operate on independent float. In other words, while there is in theory an adjustment possibility inherent in exchange rate movements, the actual achievement of this is dependent on the concrete context in which this policy instrument is used.

Fourth, we have already adverted to the limited scope for macroeconomic management brought on by the supply distortions and consequent inelasticities of output, the extensive size of the underground economy, and the limited size of the effective non-traded sectors. To these we would add that the small home market makes the economy susceptible to the behaviour of one or two large buyers or sellers of its produce thereby making even more redundant the traditional micro-macro differentiation. This limited scope raises the cost to the authorities of the surrender of the exchange rate instrument.

Fifth, whatever are the theoretical merits or demerits of the cambio - system, the actual practice of it, although limited, has already highlighted certain institutional, organizational and operational deficiencies e.g. the absence of forward rates, the persistence of unexploited arbitrage gains, deception, non-reporting, etc.. These should be remedied.

Sixth, the timing of the introduction of the system has created additional difficulties for it. The cambio commenced operation on the eve of general elections and at a period of seasonal low in foreign exchange inflows.

Finally, the cambio-system has not made possible the absorption of the parallel economy into the official economy, to the extent the authorities anticipated. The reason is that very high rates of income, consumption, and import taxes still provide strong incentives to avoid the official economy. In addition the accumulated stock of domestic assets seeking capital flight also remains large, and holders of this stock may well find the cambios convenient legal vehicles for currency substitution. The serious implication of this situation is that the share of the foreign exchange market held and declared by the cambios, is critical for determining how close the official and cambio rates are to the market clearing rate.

Based on these premises, the following ten major recommendations are advanced:

(i) The basic reform proposed is for the creation of an exchange rate system, intermediate between that of an inflexible exchange rate system and a pure independent float. The proposal is for a discretionary float based on pegging the Guyana dollar to a meaningful basket of currencies. In this system the authorities would change the nominal exchange rate from time to time, as required to keep the real effective exchange rate within previously agreed target zones designed for its medium to long term evolution. These zones would be arrived at after "technical analysis" done in consultation with the IMF, whose responsibility it is to oversee the evolution of foreign exchange rate practices. Within the agreed target zones, buyers and sellers would be free to determine the day-to-day exchange rates. The system should be designed to reduce specualtion induced changes in the exchange rate, to be responsive to differential changes in domestic, and world rates of inflation, and it should also be linked to the currencies of Guyana's trading partners in such a way

smooth out the disjuncture between short-run and long-run equilibrium exchange rates, if an efficient forward exchange markets exists. As this does not exist in Guyana, deliberate public judgement by the authorities, open to public scrutiny, is the only other alternative which can promote the general interest.

(iii) The third proposal is for a drastic improvement in the information set which the authorities is making available to the public at large. Under any exchange rate system with a significant market element, the efficiency of that system is constrained by the information set available to buyers and sellers in it. The cambio-system operates in a context where no-information, mis-information, and dis-information are widespread. Without accurate and up-to-date information consumers cannot be expected to act as a check on collusion or the exercise of monoply power by the dealers. Yet the present system is premised on "consumer sovereignity" being the ultimate check. It is for this reason that the "August hiccup" referred to earlier and the untrusting attitude of the dealers to the market as an efficient mechanism is so significant. Regular and up-to-date public information on the day-to-day operation of the system is needed to keep decision-makers and actors in the system informed.

(iv) Complementing full disclosure is the further requirement that regardless of the system finally agreed on it is important that directives given by the "authorities" should be unambiguous, specific, in writing for a definite period of time, and made public. Experience elsewhere testifies to the importance of this. Not only does it avoid disputes and minimize conflict of interest, but it also reduces the possibility

that it can offset fluctuations in individual rates. Explicit provision should also be made for the system to be more responsive to exogenous shocks, by making clear provision for this. In addition to the above, two parameters would circumscribe the authorities' discretion. One is, from the inception of the system, a precise specification of the discretionary rules and powers with which the system will evolve, (as well as the modalities for amending these should it become necessary) should be made. Secondly, the rules and powers of the authorities should be such as to provide an explicit guarantee that the rate would be changed as often as is necessary to keep tthe evolution of the real exchange rate on target. Provision should be made for changes of greater or smaller magnitude in response to such factors as exogenous shocks, and also to compel the authorities to respond through monetary and fiscal policies to differentials in the ratesof domestic and world inflation. Again, IMF consultation is important to secure the acceptability of the system and to ensure that the authorities would honour their policy obligations.

With such a system in operation, foreign exchange dealers would be guided on how the authorities would like to see the system evolve. This would then permit them to make a "technical analysis" of the authorities actions in realtion to their targets and objectives, as well as their own market operations, before investment is undertaken.

(ii) The operation of the system as outlined above facilitates a resolution of the choice as to whether the target equilibrium rate to be pursued should be a long run or short term rate. The present system does not make it clear. The proposal above, however, has the advantage of clearly establishing the latter as the market clearing rate and the former as the rate which would facilitate growth, structural differentiation and the redistribution of production, assets and income. An independent float can only be expected to

of individuals and enterprises profiteering from inside knowledge.

(v) The fifth recommendation is for the Central Bank to be made the designated authority for regulating the operations of the cambios and not the Ministry of Finance as the present Act requires. To facilitate this the Bank of Guyana should be re-organized so that its autonomy and independent sphere of policy making in this and other areas are made unambiguously clear.

(iv) The sixth recommendation is that the reformed Central Bank should intervene to keep the float clean, within the target zones. Such intervention should be principally by way of purchase and sale of foreign currencies and not by directive or other administrative action. In order to keep the float clean, the authorities will be expected to stabilize or lean against periodic unsustainable rate movements in either direction; for example seasonal movements in the inflows and outflows of foreign exchange, or lumpy transactions passing through the system.

It is anticipated that this recommendation should help to enhance the status of the Central Bank as an active regulatory authority in a system still basically one of a market float. This recommendation contradicts the expectations of the framers of the present system, that its efficient working has to be premised on the "surrender" of the exchange rate as a policy instrument. While some theorists would argue that such "surrender" could be offset by appropriate financial and fiscal policies, in the context of Guyana this is not as yet a real possibility. The tight integration of the Guyana economy into the world economy, without adequate buffers and policy instruments, is made worse where a pure independent float exists, as this fetters and does not enlarge the scope for public policy.

(vii) The seventh recommendation is a call for more competition among the dealers. While our own preference would be for the dealers to be confined to banks and non-bank financial intemediaries, the reality is that the present arrangements are otherwise, and should remain so in order to avoid unnecessary disruption. At this stage, the best way forward therefore, would be to seek to increase the degree of competition in the system through expanding the range of non-bank dealers by encouraging NGOs, leading and reputable cooperatives, credit unions, accountancy firms etc., to participate in the system. Increased numbers would help to dilute the influence on the market of any individual non-bank dealer and increase the likelihood of "good faith" operations.

(viii) The eight proposal is simple and straightforward. It is a call for decentralization of the activities of the cambios. These are excessively concentrated in Georgetown, although a very high proportion of the foreign exchange emanates from (and is used in), the border towns, the hinterland gold mining areas, and from remittances received by population concentrations along the coastal, riverain, and bauxite-mining areas.

(ix) A ninth recommendation is for clearer and more automatically applied rules pertaining to the pricing of commodities and services for customs and excise purposes.

(x) The authorities have conveyed the impression, even if unintentionally, that the cambio system is a temporary arrangement made necessary by their "temporary" inability to contain the parallel economy. This outlook encourages opportunism and specualtion among dealers. This perception of a temporary arrangement reinforces the negative impression created by the absence of a clear picture of how the authorities hope to see the exchange rate evolve. For these reasons, we believe that an important priority is for the long run evolution of the system to be clearly articulated by the authorities and

debated. Our proposals are to be seen as a contribution to this important process.

In conclusion it is imperative that it should not be presumed that if the foreign exchange passes through the cambios and not the streets, ipso facto, it is more efficiently allocated. Per contra, if the combios pursue certain street functions (e.g. capital flight, currency substitution) under legal protection, their economic consequence is no different, except that the costs of policing might be reduced. But these costs can just as easily be avoided if the simple objective is "to let the street have its own way". Thus, while there is need to develop the market element in foreign exchange determination, we have to recognize that without certain institutional, legal, structural, organizational and operational guidelines, the "market" which is created will not necessarily perform as an efficient allocator of resources.

CONTROL ORGANISATION FOR EXECUTION OF ERP, BASED ON FFP

INPUT

Strategy and Measures	Objectives	Strategy and Measures	Objectives
A.EXCHANGE RATE 1. Set unified exchange rate level in flexible system.	Exports Growth	2.Abolish forex retention scheme for exporters	Adequacy of forex for conduct of business
B.DOMESTIC PRICING 1. Set Public Sector Price & Tariffs	Improve Product Incentives Improve Resource Alloc Avoid Subsidies	2.Reduce items subject to price controls to target list.	Provide Adequate Return to Capital for Public Corps. Provide Adequate Return to Capital for Priv. Corps.
C.EXCHANGE & TRADE RESTRICTIONS 1. No-forex import licence fully liberalised	Improve incentives and resource allocation and promote growth.	2.Reduce import prohibits to some categories of food products	Improve incentives and resource allocation and promote growth.
3. Issue General Import Licences automatically.		4.Liberalise payments for services & transfers	
D.COMPETITION POLICY 1. Abolition of existing restrictions to private activity in some areas of domestic and foreign trade.	Increase economic efficiency Enhance the contribution of the private sector economic development	3.Limitation of the scope of the operations of the public enterprises to existing functions; prod production activities will will not be expanded except on efficiency grounds.	Increase economic efficiency Enhance the contribution of the private sector economic development
2. Elimination of Central Govt transfers to public enterprises engaged in agric. manufacturing and domestic and foreign trade.	Promote growth.	4.Where appropriate direct involvement of public enterprises in nonsugar agriculture, manufacturing and domestic and foreign trade will be reduced	Promote growth.

INPUT Strategy and Measures	Objectives	INPUTS Strategy and Measures	Objectives
E.ATRICULTURE,FORESTRY AND FISHERY. i)(Sugar) 1.Pursue cost reduction methods.	Maintain production at 240,000 tons per year and reduce costs further.	2.Rationalize milling capacity.	Maintain production at 240,000 tons per year and reduce costs further.
3.Improve crop(ratoon) renewal.		4.Conduct study on status of equipment in sugar factories.	
ii)(Rice) 1.Govt. to concentrate on a.(Research) b.(Extension) c.(Water Management)	Improve producer incentives. Improve productivity. Increase production. Increase exports.	2.Review rice pricing mechanism.	Improve producer incentives. Improve productivity. Increase production. Increase exports.
3.Provide appropriate resources & incentives for secondary, tertiary, and field level irrigation.		4.Continue rehabilitation of infrastructure and strengthen support services.	
6.Review adequacyy of sector sector-wide quality millin, transportation an and storage capacity.		5.Review arrangements with respect to exports by the private sector.	
		7.Improve institutional arrangement for collecting drainage charges.	
		8.Review and adjust irrigation and drainage charges.	
iii)(Timber) 1.Conduct study on competitiveness of sector.		2.Review expt. commission on timber exports and minimum expert price for timber.	
iv)(Other crops) 1.Strengthen extension services.	Improve incentives and support services and rehab infrastructure to increase production.		

INPUT

Strategy and Measures	Objectives	Strategy and Measures	Objectives
F.MINING (Bauxite) 1.Complete product development and expansion pilot plant.	Rehab plant and equipment.	2.Complete development and implementation of efficient cost control system.	Rehab plant and equipment.
3.Execute market search and intelligence.	Improve management and marketing practices. Increase exports.		Improve management and marketing practices. Increase exports.
(Gold/Diamond) 1.Abolish current price mechanism.	Modernize and increase production and exports in the official market.	2.Promote private investment.	Modernizedand increase production and exports in the official market.
G.MANUFACTURING 1.Remove existing constraints to production and exports.	Promote private investments. Promote exports. Promote efficient import substitution.	2.Establish a "non-stop" investors center and simplify administrative procedures.	Promote private investments. Promote exports.
3.Establish credit facilitiy for export-oriented industries.		4.Review fiscal incentive.	Promote efficient import substitution.
4.Issue foreign investment policy document			
H.CENTRAL GOVERNMENT 1.Reduce Central Govt.non-interest current expenditures relative to GDP.	Reduce overall deficit. Broaden tax base. Restructure Central Administration.	2.Enforce payment of dividends by public corporations.	Reduce overall deficit.
3.Convert excise taxes and specific consumption to ad valorem or increase rates.		4.Improve revenues of National Insurance Scheme by removing ceilings on wages and salaries subject to contribution.	Broaden tax base. Restructure Central Administration.
5.Extend consumption tax to services.		6.Reduce exemptions from consumption taxes and import duties.	
7.Reduce collection lags on corporate income taxes.		8.Develop and implement a selective cost recovery program for public services in health.	

INPUTS		INPUTS	
Strategy and Measures	Objectives	Strategy and Measures	Objectives
9.Develop and implement selective cost recovery program for public services in education.		10.Review functions of various departments in order to streamline civil service and eliminate overlappinf functions.	
11.Review recurrent funding requirement.	Reduce overall deficit.	12.End current transfers to public corporations.	Reduce overall deficit.
13.Strengthen budgeting procedures.	Broaden tax base.	14.Strengthen fiscal reporting procedures.	Broaden tax base.
15.Strengthen monitoring procedures.		16.Rationalize and strengthen tax management and admin-istration.	
17.Establish tax unit in Min. of Finance.	Restructure Central Administration		Restructure Central Administration
I.PUBLIC ENTERPRISES 1.Follow appropriate prices/ tariffs for public sector goods.		2.Rationalize expenditure further.	
3.Limit scope of enterprises to existing functions and activities except on efficiency grounds.	Improve the efficiency and financial performance of the public enterprises.	4.Develop clear corporate strategy. 6.Develop and execute appro-priate rehabilitation of public enterprises.	Improve the efficiency and financial performance of the public enterprises
5.Complete restructuring and undertake organisational reform including the closing/divesting of money losing enterprises.	Rationalize further their operations.	7.End transfers from Central Govt. budget to public enterprises.	Rationalize further their operations.
8.Enforce payment of dividends.		9.Capture surpluses of public enterprises.	
10.Establish credit ceilings for each enterprise.			

INPUTS Strategy and Measures	Objectives	INPUTS Strategy and Measures	Objectives
J. INTERIM PUBLIC INVESTMENT PROGRAM 1. Complete ongoing high priority investment.	Rehabilitate basic infrastructure in main productive sectors. Support export-oriented activities.	2. Review and restructure investment program in the light of available financing.	Rehabilitate basic infrastructurein main productive sectors. Support export-oriented activities.
3. Strengthen institutional arrangements for project execution.		4. Improve inter-ministerial coordination in project preparation and monitoring.	
5. Improve external aid coordination.			
K. MONETARY POLICY 1. The Bank of Guyana will largely abstain from provi providing credit to the public sector.	Pursue monetary and credit policies consistent with the program's inflation and balance of payments targets.	2. Government will reduce excess liquidity by increasing reserve requirements and converting short-term Treasury bills into medium-term debentures.	Pursue monetary and credit policies consistent with the program's inflation and balance of payments targets.
3. Establish conditions that would allow for positive real interest rates.		4. Foster competition in the financial system.	
L. INCOMES POLICY 1. General wage increases to be kept below the projected rate of inflation in 1988/89 and will not exceed the projected rate of inflation in 1990-91.	Increase employment Protect external Competitiveness	2. Merit increases to depend on productivity increase and overall financial situation of public sector.	Increase employment Protect external Competitiveness
3. With exception of some non-unionized workers, wages in private sector will be freely determined.	Help reduce inflation		Help reduce inflation

INPUTS

Strategy and Measures	Objectives
M.EXTERNAL DEBT POLICIES 1.Eliminate with external assistance all external arrears on public and publicly guaranteed debt.	Normalize financial relations with external creditors. Maintain viable external debt position.
3.Improve overall external debt management.	
N.SOCIAL IMPACT OR PROGRAM 1.Provide income supplements to retired persons with no source of income or dependent on fixed income or pensions.	Ameliorate burden of adjustment on the more vulnerable segments of the population.
3.Establish skill training programs.	
5.Expand pilot programs for social feeding.	

INPUTS

Strategy and Measures	Objectives
2.Govt. will not contract or guarantee any non-concessional loan with a maturity less than 10 years (with very limited exceptions).	Normalize financial relations with external creditors. Maintain viable external debt position.
2.Provide short-term employment by carrying out road rehabilitation and sea defence projects as in the PSIP.	Ameliorate burden of adjustment on the more vulnerable segments of the population.
4.Develop "input for work" or "food for work" programs.	

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