Nicaragua: The Accumulation Trap

George Irvin and Edwin Croes

I. Introduction

This paper examines public sector investment strategy in Nicaragua over the period from 1979 to 86. It is argued that, even in the absence of US intervention, targets for accumulaton and growth set by the planning authorities would have proved difficult to achieve. Generous overseas aid in the immediate aftermath of the 1979 revolution encouraged the government to embark on large, often ill-conceived schemes, adding to an already high burden of inherited debt. Domestic and foreign-exchange resources used for net capital formation were diverted away from maintaining the country's capital stock and, equally important, from supporting the export sector, most of which remained in private hands. A system of 'fixed' multiple exchange-rates and central foreign-exchange allocation reinforced this process, the private export sector effectively subsidising state accumulation. This was one - though by no means the only — factor explaining the deterioration in Nicaragua's external balance. Government's response to the latter was to seek more aid for even more capital projects leading to what we have termed the 'accumulation trap'.

As the economy shifted to a war footing from 1983 onwards, the required increase in government consumption could not be financed by cutting back on capital expenditure, a high proportion of which was committed to long-gestation projects under construction. Moreover, limited construction capacity was stretched to meet the requirements of both military and civil works. Attempts at stabilisation were frustrated, *inter alia*, by pent-up demand for foreign exchange required to ensure the 'simple reproduction' of large and small producers alike. Given the limited scope for financing the war effort by reducing non-war related expenditure, private or public, the result has been an inflation tax on real wages.

In short, the Nicaraguan 'mixed economy' model in practice has combined plan-generated overinvestment with market-generated inflation under increasingly difficult external conditions. Whether this state of

¹ The present paper is based on Irvin (1986) and on Croes and Kleiterp (1987). Some pertinent theoretical points, not covered here, are made in another recent paper by Kleiterp [see Kleiterp 1987].

affairs can be ascribed solely to the war or whether the Nicaraguan model is 'inherently' unstable is a question which, while admitting no ready answer, at least must be addressed.²

II. The Accumulation Trap

Succinctly, the logic of accumulation strategy under 'transitional' conditions can be characterised in the following manner. It is assumed that government finances both traditional infrastructure investment activities and new productive investment; i.e. the state becomes the 'centre of accumulation' ensuring investment-driven growth.3 The warranted rate of accumulation at predetermined real wage and productivity levels then depends essentially on two constraints: the rate of growth of wage goods (food) and foreign exchange. The planning problem is to set the share of investment and its sectoral composition in a manner which optimises growth subject to these constraints, choice of technique emerging from the solution. The application to Nicaragua of this 'neo-Kaleckian' theorisation of the small, open economy is assumed to be familiar ground [see for example FitzGerald 1985 and 1986].

While Kalecki was concerned principally with the danger of too high a rate of accumulation relative to domestic food supply (i.e. accumulation financed by an inflation tax), in today's world of potential food abundance but tight credit, domestic and foreign savings are likely to be the binding constraints. Under present conditions of depressed commodity markets, a strategy which combines short-term import cuts with medium-term export promotion and diversification seems more promising than one which relies on external capital inflows. In the 1970s, deteriorating terms-of-trade together with an abundance of petrodollars led to the well-known debt-trap problem.

By contrast, the accumulation trap arises where, in response to 'debt and dependency', the state attempts to go it alone — financing current accumulation out of

An interesting attempt to do so is to be found in Dijkstra (1986) who starts from Nove's premise that the 'drive to accumulate' in the Soviet Union after 1928 spelled the economic downfall of NEP and asks whether any analogy exists with the case of Nicaragua [see Dijkstra 1987].

³ See Irvin 1983, in which I set out three 'growth scenarios', the most pessimistic of which approximates what has occurred in practice.

assumed future growth. The Nicaraguan case can be characterised as follows. With private accumulation depressed, virtually the whole burden of gross fixed capital formation falls on the government's capital budget. State current expenditure must also rise in keeping with this new role which, given the problems associated with fiscal reform, means that the extra state finance must come from extra growth. Hence the state at the outset is locked into a high-growth strategy, facilitated in the Nicaraguan case by initially generous foreign aid.

To maintain external balance given such a strategy, rapid-gestation foreign-exchange efficient projects must be found; however, under stagnant world market conditions there are few viable export projects and most 'easy' import-substitution has already taken place. Moreover, where domestic construction capacity and related skills are scarce, initiating many large projects at once will increase the investment gestation-lag [Kleiterp 1987]. Hence high capital spending tends to exacerbate the external deficit both in the 'efficiency' sense and, perhaps more contentiously, because such spending can divert resources from the private export sector.

In Nicaragua, however, the latter cannot be interpreted as conventional 'crowding out'. Private-sector export expansion has not been savings-constrained in the usual sense of an overvalued exchange-rate leading to a squeeze on profits. Rather—given that public sector investment-good requirements have been met from a total import bill fixed by means of foreign exchange rationing—the main constraint has been the scarcity of capitalist producer and consumer (or incentive) goods.⁴

Moreover, with imports rationed to meet the needs of state-led growth and the supply of exports priceinelastic, the state cannot restore foreign balance by means of orthodox devaluation. For devaluation to work, accumulation must either be halted — restoring external balance at a lower level of national income as, for example, in the Costa Rican case — or else the pace of accumulation stepped up on the assumption that some level of investment will in time generate the required increase in net foreign exchange. While commonsense would appear to favour the former course, halting accumulation is in practice quite difficult to achieve, not least because the investment programme itself becomes the central means of attracting foreign resources to cover the current deficit. In practice, while the Nicaraguan leadership has been sensitive to the dangers of overaccumulation, the foreign exchange argument has proved compelling.

III. The Initial Strategy

Much has been written about the 1979-83 period so it will be sufficient here briefly to summarise the goals of policy. The immediate task in 1979-80 was that of repairing extensive war damage to productive plant and infrastructure and, within two to three years, returning to levels of economic activity characteristic of the late 1970s. Reflation was to take place within a planning context going beyond Keynesian demand management, though falling well short of Eastern European or Cuban collectivisation and central planning. State control of banking, external trade, and a decisive presence in internal commerce coupled with direct ownership of about half of the large farms and most of modern industry — all inherited from Somoza - was judged to provide sufficient leverage for effective planning (see Table 1).

4 Indeed, the question of incentives to the export sector was an early source of friction leading to the resignation of at least one highly placed official; by the time Government recognised the nature of the problem and agreed to a dollar incentive scheme for exporters, many had already found ways of circumventing the law.

Table 1

Nicaragua: GNP by Property Sector: 1977, 1984 (percentages)

Year Sector	I!	1984		
	State	Private	State	Private
Total GNP	11	89	43	57
Agriculture	0	100	23	77
Fishing	0	100	82	18
Industry	0	100	37	63
Mining	0	100	35	65
Gross Material Production	0	100	35	65

Source: CIERA (1985)

If income was to be distributed more equitably, demand-side restraint was required in the short term; i.e. a wage freeze made more acceptable by improving social provision (salario social) and taxing property income (impuesto patriotico). This would buy time for the state to digest its own new assets and effect a major redistribution of income, chiefly through land reform and ancillary service provision.

On the supply side, to make good the new income distribution, industrial capacity would need to be reorientated towards the production of 'basic needs' producer and consumer goods. Obviously, the combination of land reform and basic needs provision would require the state to transcend its traditional role of infrastructure provision and become the main investor, implying a strengthening of the state's financial and administrative capacity.

To manage the external balance, the traditional dual exchange-rate system with a fixed official and floating parallel rate was adapted from the Somoza period, the underlying assumption being that exports would continue to grow at their historical rate. An important innovation was the introduction of a strict system foreign exchange rationing, at first operated by the Central Bank and later by the small planning team attached to the Junta de Gobierno. Oddly, at the outset, foreign exchange rationing was seen less as an instrument for restricting total import expenditure than as the centrepiece in effecting redistribution; i.e. 'setting' the consumption pattern by changing the composition of imports. In 1980, a small devaluation of the cordoba was effected when a multiple exchangerate system was introduced, nominally benefitting specific export crops. However, the real exchange-rate did not fall and the use of multiple rates gave rise to serious price distortions. (Subsequently the system

was extended on an ad hoc basis until early 1985, when the cordoba was devalued officially.) In general, exhange-rate management policies served to subsidise 'necessary' imports, largely for government consumption and investment and at the expense of exports [IMF 1985].

During the early years, the economic policies of the Sandinista government achieved a considerable measure of success. GDP growth over the period 1980-83 compared favourably with that of neighbouring countries (see Table 2). In 1983, although per capita income was still below that of 1978, the combined effect of improved social infrastructure, free education and health care, and subsidised prices for basic consumer goods was to raise the living standards of the urban and rural poor. At the same time, inflationary pressure mounted and the domestic supply of many essential consumption goods (e.g. pulses, sugar, edible oil) lagged behind demand, while foreign exchange rationing effectively cut off the supply of non-essentials (e.g. consumer durables, spare parts).

The 'monetary' reflection of this gap was a growing monetised government deficit (see Table 3). More ominously, between 1980 and 1985, the ratio of the visible trade deficit to exports rose from 0.78 to 1.92 (see Table 4). It was not only unfavourable international prices which depressed export revenues; for most traditional crops, export volumes failed to recover and, after 1983, declined sharply (see Table 5). The government, short of seeking balance of payments support, sought to cover the gap by increasing project-finance inflows on capital account. This merely aggravated the problem, leading to what we refer to as the 'accumulation-trap'.

Table 2	Central America: Gross Domestic Product
	(Annual Variation, Percentages)

Country	1979	1980	1981	1982	1983	1984	1985	1986*
Costa Rica	5.3	0.9	-2.4	-7.3	2.7	7.9	0.9	3.0
El Salvador	-1.2	-8.1	-8.4	-5.7	0.6	1.4	1.4	-0.5
Guatemala	4.7	3.8	1.0	-3.4	-2.7	0.0	-0.9	0.0
Honduras	6.0	3.3	1.0	-1.6	-0.6	3.1	1.4	2.0
Nicaragua	-24.5	8.3	5.4	-0.8	4.4	-1.4	-2.6	0.0
Central America	-1.9	1.6	-0.7	-3.8	0.9	2.2	0.0	0.9

^{*} Preliminary

Source: CEPAL, 'Centroamerica: Bases de una Politica de Reactivación y Desarollo', 1985; CEPAL, 'Balance Preliminar de la Economia Latinoamericana, 1986'; Mexico, 1986.

Table 3

Nicaragua: Central Government Revenue and Expenditure (billions of cordobas)

Item	1978	1979	1980	1981	1982	1983	1984	1985
Total Revenue	1.8	2.1	4.5	5.9	7.3	10.2	15.8	37.2
Taxes	1.5	1.5	3.9	4.6	5.8	8.5	13.8	31.7
Other	0.3	0.6	0.6	1.3	1.5	1.7	1.9	5.5
Total Expenditure	3.3	3.1	6.4	8.4	11.1	20.1	26.9	62.9
Current	2.3	2.8	5.2	6.9	9.4	12.7	19.2	51.0
Capital	1.0	0.3	1.2	1.5	1.7	7.4	7.7	11.9
Current Savings	-0.5	-0.7	-0.6	-1.1	-2.1	-2.5	-3.5	-13.8
Surplus or Deficit	-1.5	-1.0	-1.8	-2.6	-3.8	-9.9	-11.2	-25.7
Memo Items				Perce	ntages			
Taxes/GDP	10%	10%	19%	19%	20%	26%	31%	28%
Deficit/GDP	-11%	-7%	-9%	-10%	14%	-30%	-25%	-22%
Expenditure/GDP	23%	21%	30%	34%	39%	61%	60%	55%

Source: Secretaria de Planificación y Presupuesto, Managua, 1986

Table 4

Nicaragua: Exports, Imports and Visible Trade Balance 1978-86 (millions of US dollars)

Item	1978	1979	1980	1981	1982	1983	1984	1985
Exports (fob)	646	567	450	508	383	428	386	302
Imports (cif)	553	389	803	923	682	778	800	878
Visible Trade Balance	93	178	-353	-414	-299	-350	-414	-577

Source: IDB, 'Economic and Social Progress in Latin America', 1987

IV. The Public Sector Investment Programme

For present purposes, it will be useful to distinguish between the 1979-82 period, during which public sector investment in Nicaragua is geared primarily towards the reconstruction and extension of social and economic infrastructure, and the 1983-86 period, during which the government attempted to implement large-scale productive sector projects while simultaneously shifting the economy to a war footing.

The sectoral composition of investment for the 1980-85 period is shown in Table 6. During the years 1980-82, about half of state investment went to infrastructure, a quarter to agriculture and agroindustry, and the remaining quarter was divided between energy, manufacturing, fishing and mining. Reconstruction investment accounted for about 70 per

cent of the total state investment budget; some 1,200 primary schools, 200 secondary schools, 10 hospitals, 200 health care centres, etc. were built or repaired over the period. In the productive sphere, the state financed replacement investment in agriculture and in some sectors of manufacturing. In general the strategy was to use infrastructure investment to underpin the 'social wage', and agricultural investment to ensure the supply of wage-goods. A limited number of large, new projects was established in the energy sector, where the development of geo-thermal power as a substitute for imported petroleum was given priority.

Over this period, the average share of investment in GDP was just over 20 per cent, the state accounting for 80-85 per cent of the total, and the balance accounted for principally by small and medium-sized private investors. Within the state sector, just under half of investment activity was carried out by Central

Table 5

Nicaragua: Volumes of Major Export Goods, 1978-85 (Index, 1978 = 100)

1978	1979	1980	1981	1982	1983	1984	1985
100	94	95	82	38	71	69	74
100	101	84	96	85	120	75	73
100	95	105	170	97	90	132	111
100	88	15	58	48	62	65	52
100	86	38	87	89	70	97	45
100	89	127	4	25	1	0	0
100	104	60	27	43	42	26	17
100	89	81	54	48	31	24	28
100	93	63	98	97	112	104	54
100	104	97	81	100	63	68	21
100	68	62	52	43	47	41	28
100	78	18	2	1	3	4	0
100	85	58	25	16	10	4	1
100	51	82	75	69	0	0	0
100	47	46	15	0	0	0	0
100	4/	40			0	V	
t	-11.9	-36.7			100	-16.4	-19.1
	100 100 100 100 100 100 100 100 100 100	100 94 100 101 100 95 100 88 100 86 100 89 100 104 100 93 100 104 100 68 100 78 100 85 100 51 100 47	100 94 95 100 101 84 100 95 105 100 88 15 100 86 38 100 89 127 100 104 60 100 89 81 100 93 63 100 104 97 100 68 62 100 78 18 100 85 58 100 51 82 100 47 46	100 94 95 82 100 101 84 96 100 95 105 170 100 88 15 58 100 86 38 87 100 89 127 4 100 104 60 27 100 89 81 54 100 93 63 98 100 104 97 81 100 68 62 52 100 78 18 2 100 85 58 25 100 51 82 75 100 47 46 15	100 94 95 82 38 100 101 84 96 85 100 95 105 170 97 100 88 15 58 48 100 86 38 87 89 100 89 127 4 25 100 104 60 27 43 100 89 81 54 48 100 93 63 98 97 100 104 97 81 100 100 68 62 52 43 100 78 18 2 1 100 85 58 25 16 100 51 82 75 69 100 47 46 15 0	100 94 95 82 38 71 100 101 84 96 85 120 100 95 105 170 97 90 100 88 15 58 48 62 100 86 38 87 89 70 100 89 127 4 25 1 100 104 60 27 43 42 100 89 81 54 48 31 100 93 63 98 97 112 100 104 97 81 100 63 100 68 62 52 43 47 100 78 18 2 1 3 100 85 58 25 16 10 100 51 82 75 69 0 100 47 46 <td< td=""><td>100 94 95 82 38 71 69 100 101 84 96 85 120 75 100 95 105 170 97 90 132 100 88 15 58 48 62 65 100 86 38 87 89 70 97 100 89 127 4 25 1 0 100 104 60 27 43 42 26 100 89 81 54 48 31 24 100 93 63 98 97 112 104 100 93 63 98 97 112 104 100 104 97 81 100 63 68 100 68 62 52 43 47 41 100 78 18 2 1</td></td<>	100 94 95 82 38 71 69 100 101 84 96 85 120 75 100 95 105 170 97 90 132 100 88 15 58 48 62 65 100 86 38 87 89 70 97 100 89 127 4 25 1 0 100 104 60 27 43 42 26 100 89 81 54 48 31 24 100 93 63 98 97 112 104 100 93 63 98 97 112 104 100 104 97 81 100 63 68 100 68 62 52 43 47 41 100 78 18 2 1

Source: INEC: 'Anuario Estadistico de Nicaragua', 1982 and 1985; and CEPAL, 'Notas para el Estudio Económico de America Latina y el Caribe, 1985. Nicaragua', Mexico, 1986

Table 6

Nicaragua: Gross Fixed Capital Formation by Sector, 1980-85 (millions of 1980 cordobas)

Sector	Gross Fixed Capital Formation C\$ mn	Percentage	Rate of Accumulation percentage		
Productive					
Agriculture and Livestock	9.6	44.4	31.6		
Fishing	0.3	1.4	45.6		
Industry	3.2	15.4	9.5		
Mining	0.5	2.0	57.0		
Subtotal	13.6	63.2	20.6		
Infrastructure	8.5	36.8	13.8		
Total	22.1	100.0	16.8		

Source: Arguello, Croes and Kleiterp (1987), Table 12

Government Ministries (inversión planificada), the remainder (inversión no planificada) comprising investment projects undertaken by public corporations and other public institutions financed through the state banking system (Sistema Financiero Nacional).

Initially, project planning and execution capacity rather than finance was the main constraint on state investment. Most early projects came from the limited portfolio inherited from the Somoza period. Reconstruction projects were relatively simple to design; new projects for the productive sector were not. It was during the 1979-82 period that the state established the minimal design and execution capacity necessary to launch the next wave of large-scale projects which were to dominate the 1983-86 period. The application of strict economic criteria of project selection was neglected for various reasons, the most important being that the Ministry of Planning had only nominal power to make investment decisions.

Finance was abundant as multilateral and bilateral donors poured money into the country in the form of grants and loans. Between July 1979 and June 1980 alone, over US\$300 mn was contracted from the IBRD, IDB and CABEI on exceptionally generous terms: repayment over 30 years with an eight-year grace period at 4 per cent. In this context, the US Administration's decision in 1981 to cancel a US\$75 mn loan to Nicaragua was of political rather than economic consequence. By 1981-82 aid from Europe and Canada, as well as petro-credits from Mexico and Venezuela, displaced multilateral aid. In general, over the 1980-82 period, about US\$400 mn was disbursed annually, of which 43 per cent was from multilateral agencies, 55 per cent from bilateral donors, and only 2 per cent from Eastern Europe [Barraclough et al. 1987]. Moreover, aid was supplemented by domestic savings which rose from -2 per cent of GDP in 1980 to +16 per cent in 1982 (see Table 7), largely because foreign exchange rationing cut the availability of non-essential consumption goods to half its pre-war level. Between 1979 and 1984, it is estimated that at least three-quarters of total aid contracted was for capital projects [Arguello, Croes and Kleiterp 1987].

Average annual GDP growth for 1980-82 (Table 2) was 4.3 per cent, the high 1982/81 figure reflecting the resumption of normal economic activity interrupted by the war, while the poor 1981/82 figure is attributable mainly to harvest disruption caused by floods. By 1982, inflation had risen to 20 per cent — high by historical standards but far lower than the 1979 figure. Under these conditions, the government felt able not only to sustain accumulation but to extend abundant cheap credit to small farmers (about half of which was not repaid) and subsidise urban workers through cheap food and access to social services. The 1981 World Bank country report gave Nicaragua a clean bill of health, noting that although foreign aid could be expected to fall, accumulation could be sustained from expected future growth [World Bank 1981].

From 1983 onwards, the task of defeating the 'contras' took priority and the economy shifted to a war footing. Growth slowed, and from 1984 onwards was negative; domestic production stagnated, export volumes fell (particularly coffee, cultivated largely in the war zone) and the trade gap widened. In 1984 the government deficit was equivalent to one-quarter of GDP and could only be covered by printing money. The 1985 inflation rate was 300 per cent; in 1986 it was 600 per cent. Yet the authorities carried on with the investment programme; in 1986 the estimated share of investment in GDP was nearly 24 per cent, higher than at any time since the overthrow of Somoza [Croes and

Nicaragua: Domestic and Foreign Savings (billions of 1980 cordobas)

Item	1977	1978	1979	1980	1981	1982	1983	1984
GDP	29.4	27.0	19.9	20.8	21.9	21.7	22.7	22.4
Gross Investment % of GDP	7.0	2.9	-1.3	3.5	5.3	4.4	4.8	4.8
	23.8	10.7	-6.5	16.8	24.2	20.3	21.1	21.4
Foreign Savings % of GDP	1.3	-1.3	-3.5	4.0	2.8	0.9	1.6	2.7
	4.4	-4.8	-17.6	19.2	12.8	4,1	7.0	12.1
Domestic Savings % of GDP	5.7	4.2	2.2	-0.5	2.5	3.5	3.2	2.1
	19.4	15.6	11.1	-2.4	11.4	16.1	14.1	9.4

Source: Secretaria do Planificación y Presupuesto, Managua, 1986

Kleiterp 1987:10].

Two points are important in understanding this paradoxical state of affairs. First, the high figure for the share of investment represents a fixed value of investment relative to falling GDP; nearly the whole of the 1986 Public Investment Programme (PIP) consisted of work in progress. Second, and more fundamentally, one must bear in mind the tension between the 'momentum towards accumulation' which built up in the early years, and the limited design and execution capacity of planning authorities. The years 1982-83 mark a hiatus in the investment drive. On the one hand, war damage repairs were nearing completion and projects inherited from the Somoza pipeline were coming onstream; on the other, most major new productive projects were still at a prefeasibility stage. A report of the Ministry of Planning spoke of the imminent 'collapse of investment' [MIPLAN 1982]. Generating new projects, moreover, was the key to obtaining the foreign exchange required to cover the trade deficit.⁵ In consequence, a number of large projects short-circuited the feasibility and evaluation phase; in effect, bypassing the Ministry of Planning and being submitted for approval to the Junta de Gobierno.6

One such example is the TIMAL project (US\$83 mn) which involved placing some 30,000 Ha of new land under sugar cane, building a dam, purchasing sophisticated pivot-irrigation equipment and building a new sugar mill (donated by Cuba) using advanced and untested high-pressure boilers.7 Other examples include the Chiltepe dairy and feedlot project (US\$23 mn); the African Palm Oil project (US\$21 mn) and the construction of a new port at El Bluff (US\$100 mn). The latter two, situated on the Atlantic Coast, were considered vital for 'strategic' reasons; crude cost-benefit calculations suggested that the palm-oil project was uneconomical, while no economic study was carried out for the port project. Construction of TIMAL actually began before the economic feasibility study was completed.8

These were the largest projects in the 1983-86 phase of 'accelerated execution' of the PIP. As foreign exchange was drawn in from abroad to implement the

shift towards installing new productive capacity, projects vied with each other for scarce skilled labour and domestic construction materials, the costs of which rose sharply. These scarcities were aggravated by the war effort which drained off further manpower, construction resources and, most important, diverted domestic food supplies and foreign exchange to the army; i.e. both guns and butter. Moreover the strain imposed on the economy cannot be attributed entirely to the war effort; in 1983, well before full mobilisation, non-project related construction activities came to a virtual halt as the Ministry of Construction was given absolute priority to implement 'accelerated execution'.

While it is true that accelerated execution effectively short-circuited all efforts to subject projects to some form of economic accounting — a problem compounded by the scarcity of technical personnel — the salient point is that, by the end of this period, the structure of relative prices made it virtually impossible to carry out profitability calculations. While the Investment Unit of the Ministry of Planning wrestled with the arcane principles of foreign-exchange opportunity cost calculation, the street-price of unobtainable tractor tyres was higher than the official price of a tractor, and a month's average wage bought only US\$10 on the black market [Envio 1986 cited in Croes and Kleiterp 1987].

V. Conclusions

In summary, the drive to accumulate, fuelled initially by abundant aid on attractive terms, acquired a degree of impetus which, subsequently, made the process irreversible, even under war conditions. This was a consequence not merely of the natural inflexibility of the project pipeline — even more important was the need to contract growing aid inflows to cover a current account deficit explained in part by the squeeze on the private export sector. This is what we have termed the 'accumulation trap'.

It appears clear, moreover, that productive accumulation 'crowded out' replacement investment to a degree incompatible with maintaining the existing stock of capital, already depleted during the struggle against Somoza [see Diaz 1984]. Causal evidence for this hypothesis is suggested by growing complaints about the breakdown of machinery and soaring black market prices for spare parts. One attempt at macroeconomic quantification suggests that, in 1985,

⁵ This was reinforced by Nicaragua's growing dependence on aid from Eastern Europe, which tended to be strongly biased towards capital projects; see Arguello, Croes and Kleiterp 1987 p 10, and footnote 10, p 66.

⁶ According to Arguello et al [1987:10] as state productive investment accelerated in the 1982-84 period, at least one-third of the investment projects carried out by central ministries were not even submitted to MIPLAN for inclusion in the Public Investment Programme (PIP).

Ost figures for TIMAL and other projects cited include only the foreign exchange component, or about 40 per cent of the total capital cost using the official cordoba exchange rate (cordobas 28 to the US dollar). The technical problems of TIMAL were noted by Pollitt in an unpublished report prepared for the Ministry of Agriculture (MIDINRA) in 1983.

The TIMAL sugar project evaluation study assumed that world sugar prices would return to their mid-1970s level within five years, and the associated internal rate of return was found marginally acceptable. The African Palm Oil project also was evaluated (by a Dutch Consultancy firm) when already under construction and found to be uneconomic. Of the Chiltepe project, the Minister of Agriculture, Comandante Jaime Wheelock, is alleged to have remarked that the same amount of money invested in improving existing dairy facilities could have produced twice the output; nevertheless, he lobbied successfully to get the project approved.

merely to maintain industrial capital intact would have required 90 per cent of gross fixed investment to be directed towards replacing machinery and equipment [Kleiterp 1987].

A related consequence of overaccumulation is the strain placed on the external balance and the problem of exchange rate management. These factors have combined in a manner such that, since 1985 when the newly-elected government attempted to implement an adjustment programme, the situation has deteriorated further and adjustment has proved almost unmanageable.

While the import burden of accumulation is readily quantifiable, the opportunity cost in terms of exports foregone is not, since it is impossible to give a precise definition of the 'proportion' of lost export volumes ascribable to the war. Moreover, one cannot argue that there is any simple trade-off between foreign exchange availability for investment and consumption. since foreign exchange availability depended on new capital projects. What does seem reasonable to suppose is that, had more emphasis been placed on maintaining the existing capital stock, for example by means of 'package projects' designed to retool the private export sector, part of the resulting increase in export capacity could have gone towards relieving pent-up consumption demand. (Ironically, in 1983 a request along these lines submitted to the IBRD was turned down.)

While the question of how far the disappointing performance of the Nicaraguan economy since 1984 can be ascribed to the war per se remains unanswered, the thrust of the above arguments suggests that the war was not the only problem, nor was the problem one of routine management or mismanagement of the economy. A central proposition of the argument is that decisions taken — both by the Sandinista government and by aid donors — in the euphoric climate of victory against Somoza critically determined Nicaragua's economic trajectory. Underlying this proposition is the question of whether the version of state-led accumulation attempted by Nicaragua is necessary to, or even compatible with, a mixed-economy model of populist vocation.

The war against the 'contras' has doubtless cost the country dear. At the same time, it seems highly improbable that, given the benefit of hindsight, the Sandinista leadership would have pursued the same policies, as they themselves have made clear. In the same manner as the Sandinistas took on board the difficult lessons of the Chilean experience, so it would appear judicious to begin to analyse the difficult

lessons of the Nicaraguan experience while recalling the crucial difference, namely, that the Nicaraguan revolution has survived.

References

- Arguello, A., Croes E. and Kleiterp, N., 1987, Nicaragua: Accumulación y Transformación, Secretaria de Planificación y Presupuesto, Managua, 20 de Marzo
- Barraclough, S., van Buren, A., Gariazzo, A., Sundaram, A., and Utting, P., 1987, Aid that Counts: The Contribution of Western Development Assistance to Nicaragua, TNI, Amsterdam
- Croes, E. and Kleiterp, N., 1987, 'Nature and Characteristics of the Accumulation Process in Nicaragua', (first draft) ISS, The Hague, September
- Diaz, A., 1984, 'La accumulación en Nicaragua (1980-84): balance y perspectiva', INIES, Managua, 14 de julio
- Dijkstra, G., 1987, 'La Estabilidad de la Economia mixta de Nicaragua' in R. Rausch (ed.), Europe and the Crisis in Central America and the Caribbean, University of Marburg
- FitzGerald, E. V. K., 1985, 'Planned Accumulation and Income Distribution in the Small, Peripheral Economy' in Irvin, G. and Gorostiaga X. (eds.), Towards An Alternative for Central America and the Caribbean, Allen and Unwin, London
- —1986, 'An Evaluation of the Economic Costs to Nicaragua of US Aggression: 1980-84', in R. Spalding (ed.), *The Political Economy of Revolutionary Nicaragua*, Allen & Unwin, Boston
- —1986, 'Notes on the Analysis of the Small Underdeveloped Economy in Transition' in Fagen, R., Deere, C. D. and Coraggio, J. L., *Transition and Development*, Monthly Review Press, New York
- IMF, 1985, 'Nicaragua: Recent Economic Development', IMF, Washington DC, February
- Irvin, G., 1983, 'Nicaragua: Establishing the State as the Centre of Accumulation', Cambridge Journal of Economics vol 7
- —1986, 'Nicaragua: Notas sobre una economia en condiciones de guerra', paper presented to the 25th Anniversary Conference of the Latin American Institute, Soviet Academy of Sciences, Moscow, May
- Kleiterp, N., 1987, 'Implementing a New Model of Accumulation: the Case of Nicaragua', Working Paper, Institute of Social Studies, The Hague
- MIPLAN, 1982, 'Plan Acción de Emergencia en Preinversión', Managua, March
- World Bank, 1981, Nicaragua: The Challenge of Reconstruction, IBRD, Washington DC

This problem is recognised by FitzGerald, who assumes that had US-sponsored aggression not taken place, export earnings would have returned to their pre-1979 levels and been used to finance further growth rather than service debt.