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FOREIGN CAPITAL, DEPENDENCE, DESTABILISATION AND FEASIBILITY OF TRANSITION TO SOCIALISM*

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The paper analyses the argument that external capital inflow could create dependence and thus sabotage the possibility of a successful transition to socialism. The formal model deployed is of the Harrod–Domar variety and simulation runs are undertaken for five underdeveloped countries, using savings functions estimated by Weisskopf. The conclusions lend some support to radical concerns about the adverse effects of foreign aid on recipient countries.

1. Introduction

Foreign aid, in radical arguments, increases the dependence of the recipient LDC and hence its vulnerability to donor-country pressures to keep away from genuine socialism. There are basically two major types of arguments which we may develop to provide a rationale for this hypothesis:

(1) That aid and private capital inflow reduce domestic savings; that the achievement of a target ratio of domestic savings to income is the key to being able to sustain self-reliant growth (as in a typical Harrod–Domar model) and that the receipt of foreign capital compromises the reaching of this target by pushing off the date at which it can be reached by hurting domestic savings.

(2) That the receipt of external capital enables the expansion of consumption and investment at high levels, and that the shift of the country to a socialist regime leads to a cessation of capital inflow, even to net repayment burdens, and related declines in efficiency of resource use in consequence, thus leading to a resource-crunch and reduced consumption and investment levels, resulting in 'chaos' and discontent under which the capitalist donors can then readily and unobtrusively stage indigenous military takeovers, thus destroying the socialist regime.

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We have examined the former argument at some length elsewhere.[1] Here we concentrate on the latter argument, which clearly has suggestive parallels in the experience of socialist regimes in Ghana under President Nkrumah and in Chile under President Allende.

2. The basic argument

Thus, contemplate the following scenario. Assume that the aid is from the capitalist West to a recipient which is either a neutral country or a faithful ally or satellite in the cold war of either the pre-detente or the post-detente variety. Assume further that aid has enabled the recipient country to sustain increasing levels of consumption and investment. Now, the recipient country changes its political hue to socialism, getting dangerously close to implementing genuine redistributional policies (as with Allende) and/or openly expressing support for the socialist countries such as the USSR (as with Nkrumah). With this unpalatable shift to the left, the foreign private investors (who may be faced with expropriation of existing investments, as in Chile) shy away from further investments; foreign aid is cut off or, more euphemistically, 'suspended' (as with Chile); pressure is brought even on the international agencies such as the IMF and IBRD to withhold credits; and the net result is *either* an elimination of the foreign capital inflow on both official and private accounts *or*, worse still, a net repayment burden on past debts incurred by the favoured predecessors of happier political persuasions. This crunch in resource availability would further come in the face of expectations of continued growth of consumption and income generated by the past-aid-inflow-supported economic expansion, thus straining greatly the economic viability of the socialist regime.

In addition, if aid has also involved a restructuring of the economy so as to involve considerable use of imported intermediates for the industrial sector, the reduced availability of foreign exchange may also seriously affect productivity in that sector, and hence the capital–output ratio could increase (as indeed seems to have happened in Ghana). Further, if the socialist transformation generates hostility from the bourgeoisie to the point of sabotage (possibly supported by 'destabilisation' action from external agencies, as now confirmed in the case of Chile), that too would be ground for decline in productivity from investments, past and current. Finally, there may well be an element of economic mismanagement, resulting from the application of ideological but unrealistic ideas about economic policy and perhaps also from the difficulties that have been detailed above as resulting from the withdrawal of foreign capital.

The effect of the resource-crunch, including associated declines in productivity, is to generate a climate of 'chaos' and growing disenchantment and discontent with the socialist regime, under which a military takeover (as in both Ghana and

[1] Grinols and Bhagwati (1974).

Chile) is practically inevitable and the assisting hand of the CIA, like Adam Smith's, remains unseen (though, as in the case of Allende, not necessarily forever) but has proven to be extremely effective.

This scenario can doubtless be filled out, and carefully qualified, to explain the specific episodes involving Presidents Nkrumah and Allende. Here, however, our purpose is rather to work with a simple Harrod–Domar type of model and to examine whether, taking plausible behavioral functions on savings, investment, etc., and observed values of external capital flows, we can put orders of magnitude on the kind and magnitude of resource-crunch that could emerge if a recipient LDC shifted left. For, if the overall resource-crunch is significant, then the radical economist is indeed legitimately concerned about aid leading to lack of independence: right wing and centrist politicians and parties, by accepting aid, may well be mortgaging for the country its democratic right to shift its political coloring and the international affiliations that it desires.

3. The model

The model used here is a simple Harrod–Domar type, with a slightly-modified savings equation to allow for foreign inflow of capital and exports as independent variables. Thus we have:

$$Y_T = C_T + I_T + E_T - M_T, \tag{1}$$

$$S_T = Y_T - C_T, \tag{2}$$

$$F_T = M_T - E_T, \tag{3}$$

$$S_T = a + bY_T + cF_T + \delta E_T, \tag{4}$$

$$Y_T = \alpha K_{T-1}, \tag{5}$$

$$I_T = K_T - K_{T-1}, \tag{6}$$

where Y, C, I, E, M, S, K and F are real national income, consumption, investment, exports, imports, savings, capital stock and inflow of foreign capital, respectively, and T denotes the time subscript. The model, in essential respects, is too well known to require detailed spelling-out by each equation. M and E are taken as exogenously specified: i.e., given exports (E), the amount of foreign aid (F) defines the available amount of imports (M).

The model can be readily solved to give the time-paths of income (Y), savings (S), consumption (C) and investment (I), once the parameters and the exogenous variables (imports, exports and initial income level) are specified.

4. The analysis

Our procedure then is to use (i) the Weisskopf (1972) estimated savings functions for LDCs,[2] (ii) their initial-income values (Y_0), (iii) their actual exports (E) during 1961–1970, and (iv) their average, mean value of external capital inflow (F) during 1961–1970, and then to generate, for each of these countries, the time-path of Y, C, I and S for the period 1961–1970 by assuming that the country would start out with the initial income-level, and be experiencing the observed annual export values and a mean-value capital inflow (as estimated).

Then, after this 10-year inflow of capital, each economy is assumed, from 1971 onwards, to have shifted left to a degree inviting economic 'blackmail' from the West. We then work out, for the years 1971 to 1976, the time-paths of Y, C, S and I that the economy will experience under three increasingly unfavourable sets of assumptions: (1) that net aid reduces to zero (so that $M = E$, i.e., $F = 0$); (2) that the gross aid reduces to zero, leading to a net repayment burden (put conservatively at 10 percent of the exports);[3] and (3) that, in addition to this net repayment burden, the resource-crunch is accentuated by the decline in productivity that it increasingly generates and/or propels – a factor built into our model by assuming an annual reduction, beginning in 1971, of the output–capital ratio by 3 percent.[4] The rest of the parameters in the model are assumed to be identical before the end of 1970 and thereafter: however, since exports are exogenously specified, they have been assumed to expand at the same *trend* rate after 1970 as before.

We can then examine the magnitude and importance of the resource-crunch imposed by external-capital blackmail by comparing what would have happened to income and consumption *if capital inflow had continued*, with their behaviour *in the absence of such inflow*, during 1971–1975: a significant decline in the growth of consumption under the former could well be taken as disruptive, given the expectations built up by the increased resource-availability in the aid regime. Of particular interest would also be a comparison of the consumption levels during 1970 with these in 1971 and thereafter: this may well reveal an *absolute*

[2]We take the Weisskopf (1972) estimates as the most comprehensive and sophisticated ones available to date. Weisskopf's estimates have stimulated additional work and, while the specific parametric estimates are not duplicated, it is worth noting that the basic finding that $c < 0$ remains, to date, unrefuted.

[3]A referee has raised the question of whether a socialist regime would not also abrogate existing debts or at least suspend unilaterally all repayments. Neither possibility, while impossible to rule out, is, however, probable and did not transpire in the cases of Ghana and Chile.

[4]The referee has also raised the question whether the decline in productivity would not rather take the form of a 30–40 percent decline immediately, and steady recovery in succeeding years. We did consider this alternative scenario (which, of course, strongly increases the likelihood of ratchet effects transpiring), but preferred our 'progressive chaos' version for the simple reason that it seems to correspond much more closely to what happened in Ghana and Chile and, even on a priori grounds, is the more probable as destabilisation efforts, 'sabotage' by domestic bourgeoisie, etc., are likely to increase slowly over time rather than peak immediately and fall progressively thereafter.

decline in consumption such that, given the strong possibility of a 'ratchet'-effect constraint, there would be the virtual inevitability of an economic crisis and chaos.

Before we present the simulation runs in the next section, note that the direct effect of capital inflow cessation or reversal – as distinct from the indirect effect *via* decline in productivity as captured by an increased capital–output ratio–would reflect itself in our model through the reduced level of imports (as exports are exogenously given).

In turn, this reduction of imports immediately reduces consumption and increases saving (as $c < 0$), but reduces total investment by $(1+c)$ times the reduced imports. However, the reduced investment means reduced income by α times the reduced investment in the next period. This leads to a b times $\alpha(1+c)\mathrm{d}M$ amount of reduced savings and, in turn, to an α times $b\alpha(1+c)\mathrm{d}M$ reduction in income. It is thus easy to see that the reduction in income that accrues from the reduced capital inflow (and hence reduced imports) can be written as

$$\frac{\mathrm{d}Y_{T+k}}{\mathrm{d}M_{T-1}} = (1+\alpha b)^k \alpha(1+c). \tag{7}$$

This effect increases with time; besides, it is a function of, and increases with, α and b (as long as $-1 < c$). Thus, if the cessation of capital inflow also causes a decline in productivity and hence a rise in 'α', the effect will again be to accentuate the fall in income from the termination of the capital inflow.

5. Simulation results

We are now ready to examine the simulation runs. Tables 1–5 present the main results, in a form which can be easily read, for the following five countries: Ghana, India, Israel, Philippines and South Korea. These countries were chosen because they happen to be part of Weisskopf's 17 LDCs; besides, they represent an interesting cross-section of countries from different regions and with diverse political and economic experiences. Each table refers to a single country and is assembled in a form which is amenable to easy reference.

To enable the reader to make inferences without straining his calculating ability, we have turned the series under alternative simulations into indices. Thus, in table 1 for Ghana, column (2) contains the simulation run for a constant capital inflow (estimated as the average flow during 1961–1970). YZ represents the income levels for this simulation, with 1961 = 100 and the base year income being of course the observed income for 1961. Column (3), marked YZ_0, contains the values of the income levels, with 1961 = 100, for this capital inflow reduced to zero as of 1970. YM, in column (4), contains the income levels, with 1961 = 100 again, on the alternative assumption that gross capital inflow is

zero and there is a net capital outflow of 10 percent of the export value in each year. YM_α, in column (5), represents the estimates on the further assumption that there is also a continuous decline in productivity such that the output–capital ratio α declines by 3 percent annually. This description holds for each country, for each of tables 1–5. Corresponding explanations clearly hold for consumption under alternative simulations in columns (6)–(9).

Columns (10)–(15) utilise the same information but with a different focus. In each of the tables, columns (10)–(12) show the proportionate decline (or rise) in income under the no-inflow simulation runs as against the capital-inflow simulation run. Columns (13)–(15) do that for consumption.[5]

In making inferences from these tables for our purposes, remember that we *are* committing the economy to behaviour according to the postulated savings function, in particular. There is of course no valid reason to assume that a sudden decline in capital inflows and/or productivity will not involve a significant shift in this function: e.g., the marginal propensity to save may be reduced drastically to meet this situation, so as to appease current demands for increased consumption by the workers (as in Chile). Doubtless such scenarios could be worked out, for specific cases, as well. Here, however, we have confined ourselves to a limited-option scenario which ties the LDC government into reacting to a resource scarcity by playing according to the same behavioral rules as before the scarcity. The results of the simulation exercise are further 'realistic' in letting the capital inflow run at *observed* (but averaged-out, annually constant) values during a longish *ten-year* period during 1960s and then building in the shift to socialism and attendant capital-inflow blackmail.

The results in the tables suggest a number of conclusions which, in varying degrees, may be taken as supportive of radical concerns.

(1) Since domestic savings will move up immediately, given $c < 0$ in the Weisskopf savings functions, we should rather focus on the effect on income. It turns out that in none of the cases considered is there an absolute decline in income with the elimination of capital inflow: the inflow is just not large enough to lead to such a substantial impact as to outweigh the growth due to investment from domestic savings. Even the disruption effect at 3 percent annually will not produce an absolute decline in income. No possibility of a ratchet effect is therefore to be found in these simulations, as far as income is concerned.

(2) However, absolute consumption does decline immediately for Israel, even in the least unfavourable run (CZ_0), and consumption declines almost by 7 percent under the most unfavourable simulation (CM_α). This contrast between the behaviour of income and consumption reflects, of course, the high level of capital inflow combined with a very high coefficient to consume from it (i.e., a high value of $|c|$): the withdrawal of aid therefore leads to a big increase

[5]Table 6 brings together the main parametric values used in the simulation runs.

Table 1

Simulation runs for Ghana: Income and consumption under alternative scenarios.

Yr.	YZ[a]	YZ_0[b]	YM[c]	YM_α[d]	CZ[e]	CZ_0[e]	CM[e]	CM_α[e]	$100\left(1-\frac{YZ_0}{YZ}\right)$	$100\left(1-\frac{YM}{YZ}\right)$	$100\left(1-\frac{YM_\alpha}{YZ}\right)$	$100\left(1-\frac{CZ_0}{CZ}\right)$	$100\left(1-\frac{CM}{CZ}\right)$	$100\left(1-\frac{CM_\alpha}{CZ}\right)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	100.00[f]													
2	101.35				92.81									
3	102.86				94.68									
4	104.34				96.28									
5	105.80				93.20									
6	107.76				96.95									
7	109.53				97.69									
8	111.41				97.90									
9	113.47				100.46									
10	115.48				101.09									
11	117.63	117.50	117.43	117.37	101.82	97.70	95.58	95.53	0.11	0.17	0.22	4.04	6.13	6.17
12	119.95	119.67	119.54	119.30	103.17	98.94	96.71	96.52	0.23	0.34	0.54	4.10	6.26	6.45
13	122.37	121.95	121.74	121.14	104.61	100.27	97.92	97.44	0.34	0.51	1.00	4.15	6.40	6.86
14	124.90	124.34	124.05	122.85	106.41	101.68	99.21	98.25	0.45	0.68	1.64	4.20	6.53	7.43
15	127.54	126.83	126.46	124.38	107.75	103.18	100.58	98.91	0.55	0.85	2.48	4.25	6.65	8.20
16	130.29	129.43	128.98	125.71	109.46	104.76	102.04	99.42	0.66	1.01	3.52	4.29	6.77	9.17
17	133.16	132.15	131.60	126.82	111.26	106.44	103.59	99.75	0.76	1.17	4.76	4.33	6.89	10.34
18	136.14	134.98	134.34	127.73	113.15	108.20	105.23	99.92	0.86	1.33	6.18	4.37	7.00	11.69
19	139.25	137.92	137.18	128.45	115.14	110.06	106.95	99.94	0.95	1.48	7.76	4.41	7.11	13.20

[a] YZ = income with constant capital inflow annually.

[b] YZ_0 = income with capital inflow reduced to zero.

[c] YM = income with repayments at 10 percent of exports.

[d] YM_α = income with output–capital ratio declining at 3 percent annually *and* repayments at 10 percent of exports.

[e] CZ, CZ_0, CM and CM_α refer to corresponding values for consumption.

[f] The first year for income is reduced to base = 100 for the consumption and income series. Thus both series are income deflated and have a common base.

Table 2

Simulation runs for India: Income and consumption under alternative scenarios.

Yr.	YZ[a]	YZ_0[b]	YM[c]	YM_α[d]	CZ[e]	CZ_0	CM[e]	CM_α[e]	$100\left(1-\frac{YZ_0}{YZ}\right)$	$100\left(1-\frac{YM}{YZ}\right)$	$100\left(1-\frac{YM_\alpha}{YZ}\right)$	$100\left(1-\frac{CZ_0}{CZ}\right)$	$100\left(1-\frac{CM}{CZ}\right)$	$100\left(1-\frac{CM_\alpha}{CZ}\right)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	100.00[f]													
2	104.34				83.04									
3	108.84				86.21									
4	113.59				89.06									
5	118.70				93.00									
6	124.04				98.08									
7	129.43				102.10									
8	135.07				106.75									
9	140.90				110.80									
10	147.08				116.13									
11	153.40	153.07	153.00	152.82	120.90	119.99	119.76	119.62	0.22	0.27	0.38	0.75	0.95	1.07
12	160.03	159.36	159.18	158.48	126.09	124.91	124.59	124.02	0.42	0.53	0.97	0.94	1.19	1.64
13	166.93	165.90	165.63	163.86	131.50	130.03	129.63	128.20	0.62	0.78	1.84	1.12	1.43	2.52
14	174.12	172.72	172.35	168.81	137.14	135.37	134.88	132.02	0.80	1.02	3.05	1.29	1.65	3.73
15	181.59	179.82	179.33	173.21	143.02	140.94	140.36	135.41	0.98	1.24	4.62	1.45	1.86	5.32
16	189.37	187.20	186.60	177.00	149.14	146.74	146.07	138.30	1.15	1.46	6.53	1.61	2.06	7.27
17	197.47	194.89	194.17	180.15	155.52	152.79	152.01	140.67	1.31	1.67	8.77	1.76	2.26	9.55
18	205.89	202.89	202.04	182.69	162.16	159.09	158.20	142.55	1.46	1.87	11.27	1.90	2.44	12.09
19	214.65	211.21	210.23	184.67	169.08	165.65	164.65	143.98	1.60	2.06	13.97	2.03	2.62	14.85

[a] YZ = income with constant capital inflow annually.
[b] YZ_0 = income with capital inflow reduced to zero.
[c] YM = income with repayments at 10 percent of exports.
[d] YM_α = income with output–capital ratio declining at 3 percent annually *and* repayments at 10 percent of exports.

[e] CZ, CZ_0, CM and CM_α refer to corresponding values for consumption.
[f] The first year for income is reduced to base = 100 for the consumption and income series.

Table 3

Simulation runs for Israel: Income and consumption under alternative scenarios.

Yr.	YZ[a]	YZ_0[b]	YM[c]	YM_α[d]	CZ[e]	CZ_0	CM[e]	CM_α[e]	$100\left(1-\frac{YZ_0}{YZ}\right)$	$100\left(1-\frac{YM}{YZ}\right)$	$100\left(1-\frac{YM_\alpha}{YZ}\right)$	$100\left(1-\frac{CZ_0}{CZ}\right)$	$100\left(1-\frac{CM}{CZ}\right)$	$100\left(1-\frac{CM_\alpha}{CZ}\right)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	100.00[f]													
2	109.42				106.17									
3	119.83				114.04									
4	131.02				122.05									
5	143.21				130.46									
6	156.57				139.08									
7	171.39				146.00									
8	188.67				158.84									
9	207.32				170.75									
10	228.06				179.56									
11	252.49	251.42	251.16	250.49	200.89	173.07	166.33	165.74	0.42	0.53	0.79	13.85	17.20	17.49
12	277.89	275.71	275.18	272.44	222.58	193.79	186.74	184.34	0.79	0.98	1.96	12.94	16.10	17.18
13	304.45	301.10	300.29	293.39	242.59	212.79	205.03	198.99	1.10	1.36	3.63	12.29	15.48	17.97
14	333.02	328.48	327.36	313.33	264.29	233.43	224.92	212.65	1.36	1.70	5.92	11.67	14.89	19.54
15	363.74	357.95	356.48	331.67	287.85	255.90	246.62	224.91	1.59	2.00	8.82	11.10	14.32	21.86
16	396.67	389.58	387.74	347.95	313.35	280.27	270.19	235.38	1.79	2.25	12.28	10.56	13.77	24.88
17	431.90	423.47	421.21	361.91	340.87	306.61	295.70	243.81	1.95	2.47	16.20	10.05	13.25	28.47
18	469.53	459.69	456.99	373.47	370.48	334.99	323.22	250.13	2.10	2.67	20.46	9.58	12.76	32.48
19	509.64	498.35	495.17	382.70	402.26	365.51	352.84	254.43	2.21	2.84	24.91	9.14	12.29	36.75

[a] YZ = income with constant capital inflow annually.
[b] YZ_0 = income with capital inflow reduced to zero.
[c] YM = income with repayments at 10 percent of exports.
[d] YM_α = income with output–capital ratio declining at 3 percent annually *and* repayments at 10 percent of exports.

[e] CZ, CZ_0, CM and CM_α refer to corresponding values for consumption.
[f] The first year for income is reduced to base = 100 for the consumption and income series.

Table 4

Simulation runs for Philippines: Income and consumption under alternative scenarios.

Yr.	YZ[a]	YZ_0[b]	YM[c]	YM_α[d]	CZ[e]	CZ_0[e]	CM[e]	CM_α[e]	$100\left(1-\frac{YZ_0}{YZ}\right)$	$100\left(1-\frac{YM}{YZ}\right)$	$100\left(1-\frac{YM_\alpha}{YZ}\right)$	$100\left(1-\frac{CZ_0}{CZ}\right)$	$100\left(1-\frac{CM}{CZ}\right)$	$100\left(1-\frac{CM_\alpha}{CZ}\right)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	100.00[f]													
2	107.14				93.38									
3	114.16				97.74									
4	122.36				104.53									
5	101.17				111.03									
6	140.97				117.81									
7	152.07				127.49									
8	163.78				138.85									
9	175.64				149.79									
10	187.89				154.76									
11	203.28	202.38	200.53	200.91	170.62	169.26	167.19	166.85	0.44	1.17	1.35	0.79	2.01	2.21
12	218.47	216.62	213.82	212.33	183.33	181.14	177.84	176.52	0.85	2.13	2.81	1.20	2.99	3.71
13	234.7	231.88	227.62	223.82	196.98	193.91	189.27	185.91	1.21	3.03	4.64	1.56	3.91	5.62
14	252.0	248.21	242.34	234.64	211.62	207.63	201.52	194.70	1.54	3.87	6.92	1.89	4.77	8.00
15	270.6	265.66	258.03	244.47	227.30	222.34	214.63	202.62	1.84	4.66	9.67	2.18	5.57	10.86
16	290.4	284.28	274.73	253.09	244.08	238.10	228.64	209.47	2.11	5.40	12.85	2.45	6.32	14.18
17	311.4	304.14	292.51	260.39	261.99	254.95	243.60	215.15	2.35	6.09	16.40	2.69	7.02	17.88
18	333.8	325.30	311.40	266.37	281.10	272.94	259.55	219.65	2.57	6.73	20.22	2.90	7.67	21.86
19	357.7	347.81	331.47	271.09	301.47	292.14	276 53	223.04	2.77	7.34	24.22	3.10	8.27	26.02

[a] YZ = income with constant capital inflow annually.
[b] YZ_0 = income with capital inflow reduced to zero.
[c] YM = income with repayments at 10 percent of exports.
[d] YM_α = income with output–capital ratio declining at 3 percent annually *and* repayments at 10 percent of exports.
[e] CZ, CZ_0, CM and CM_α refer to corresponding values for consumption.
[f] The first year for income is reduced to base = 100 for the consumption and income series.

Table 5

Simulation runs for South Korea: Income and consumption under alternative scenarios.

Yr.	YZ[a]	YZ_0[b]	YM[c]	YM_α[d]	CZ[e]	CZ_0[e]	CM[e]	CM_α[e]	$100\left(1-\frac{YZ_0}{YZ}\right)$	$100\left(1-\frac{YM}{YZ}\right)$	$100\left(1-\frac{YM_\alpha}{YZ}\right)$	$100\left(1-\frac{CZ_0}{CZ}\right)$	$100\left(1-\frac{CM}{CZ}\right)$	$100\left(1-\frac{CM_\alpha}{CZ}\right)$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1	100.00[f]													
2	114.01				85.85									
3	128.29				97.33									
4	143.40				108.24									
5	159.77				119.29									
6	177.74				118.74									
7	201.26				149.39									
8	222.65				163.29									
9	246.28				180.23									
10	271.91				197.03									
11	300.18	299.12	298.88	298.09	222.93	206.03	202.15	201.38	0.36	0.43	0.70	7.58	9.32	9.66
12	329.18	327.04	326.56	323.42	246.38	228.44	223.97	220.91	0.65	0.80	1.75	7.28	9.10	10.34
13	355.85	356.63	355.87	347.94	271.45	252.46	247.37	239.66	0.90	1.11	3.31	7.00	8.87	11.71
14	329.19	387.88	386.82	370.93	298.16	278.10	272.38	256.91	1.10	1.37	5.42	6.73	8.65	13.84
15	426.22	420.81	419.43	391.78	326.51	305.38	299.01	272.08	1.27	1.59	8.08	6.47	8.42	16.67
16	461.96	455.44	453.71	410.09	356.53	334.32	327.25	284.77	1.41	1.79	11.23	6.23	8.21	20.13
17	499.41	491.77	489.67	425.66	388.21	364.91	357.14	294.80	1.53	1.95	14.77	6.00	8.00	24.06
18	508.59	529.83	527.32	438.48	421.58	397.19	388.68	302.14	1.63	2.09	18.59	5.79	7.81	28.33
19	579.51	569.62	566.69	488.71	456.65	431.15	421.88	306.96	1.71	2.21	22.57	5.58	7.61	32.78

[a] YZ = income with constant capital inflow annually.

[b] YZ_0 = income with capital inflow reduced to zero.

[c] YM = income with repayments at 10 percent of exports.

[d] YM_α = income with output–capital ratio declining at 3 percent annually *and* repayments at 10 percent of exports.

[e] CZ, CZ_0, CM and CM_α refer to corresponding values for consumption.

[f] The first year for income is reduced to base = 100 for the consumption and income series.

Table 6
Parametric values used in simulation runs of the model for the five countries.[a,b]

Country	a	b	c	δ	α[d]	Average $(M-E)$[c] in the with-inflow run (Z)	Initial income (deflator)	Average $(M-E)$[c] as percent of initial income
Ghana	−254.5	0.197	−0.765	0.688	0.11	60.6861	1158.62	5.24
India	−4.968	0.191	−0.270	1.082	0.19	3.89582	163.5658	2.38
Israel	88.3	0.125	−0.886	0.621	0.31	2,104.85	6938.296	30.33
Philippines	−0.4150	0.114	−0.209	0.348	0.43	0.395798	14.9222	2.65
South Korea	147.6	0.026	−0.817	1.132	0.30	82.524	425.122	19.41

[a]The units in which $(M-E)$ and initial income are stated are as follows: Ghana, million cedis; India, billion rupees; Israel, million Israeli pounds; Philippines, million pesos; and South Korea, billion won.
[b]$S = a+bY+cF+\delta E$.
[c]Average $(M-E)$ figures were for the ≈ 10-year figures of the 1960s from IMF Financial Statistics.
[d]α was chosen so that the model tracked most closely the historical path of GNP over the decade of the 1960s.

in domestic savings (as seen in table 3) and a correspondingly big drop in consumption. This is true also for Ghana with its absolute decline in consumption.[6]

(3) While, however, the ratchet-effect possibility is not probable in the case of income, and only mildly probable for consumption, there is plenty of evidence that declines, *relative to what would have happened under continued capital inflow and what therefore may have been built into expectations from the government*, in income and consumption do occur in the short-run of one to five years, under even the most favourable (Z_0) simulations. Thus, to illustrate by reference to the Philippines simulations, by the 3rd year itself, the income decline (relative to YZ) for Philippines would have been over 1 percent for zero capital inflow (YZ_0), over 3 percent for the net repayment case (YM) and over 4.5 percent for the worst case (YM_α). If one lets the situation unfold to the 9th year (the socialist experiment will likely have ended long before that!), the declines increase, but rather mildly, except in the declining-productivity simulation (YM_α), where one gets a staggering decline of nearly 25 percent! It would appear that the capital-flow elimination, in itself, does not create a large decline in income growth; though even a 1–2 percent 'shortfall' may be critical for a democratic government.[7]

The results are broadly similar for all the countries, suggesting that the elimination of capital inflow, taking plausible values, *does* in itself reduce the growth of consumption and investment below the levels sustainable with the inflow (and thus 'expected' to be so sustained after a decade or so of such inflow-caused growth in consumption and investment). But, in general, these declines are relatively small proportions of the 'expected' values and may not create as much difficulty for transition to socialism as might be feared. However, the results of the declining-productivity simulations are much more disturbing: suggesting that the real 'crunch' of resources, and hence the stranglehold on the socialist experiments, may come from the effect of the reduced/eliminated capital inflow on the ability to sustain the productivity of investment at the customary levels. Here, the role of the domestic bourgeoisie in economic sabotage, with or without 'destabilising' aid from external forces, the underutilisation of capacity closely geared to the availability of more foreign exchange, and the difficulty of managing an economy already under strain from the direct effect of reduced resources may well be the critical factors in the eventual sabotage of the socialist experiment.

In fact, our simulation exercises, in underlining the relatively small impact of

[6]South Korea should also have shown a ratchet effect for similar reasons; but the effect is clouded by the impact of the exports behavior on savings.

[7]Similar conclusions can be reached if attention is focused instead on the relative declines in consumption. Note, however, that the percentage decline in consumption under either of the three 'blackmail' simulation runs need not necessarily rise; in fact, for Israel and South Korea, the reader can observe the opposite. This paradox is readily resolved by noting that $C_0/Y_0 = [(1-b)-(a/Y_0)]-(\delta E/Y_0)$, so that if $a > 0$, as in the case of Israel and South Korea, the term $[(1-b)-(a/Y_0)]$ will *rise*, instead of fall, as Y_0 rises.

'aid blackmail' per se and the significantly larger impact of the declining-productivity effect in undermining the socialist LDC, can be taken as providing the underlying rationale of the 'destabilisation' activities in Chile that played a critical role in President Allende's overthrow by the military. We may have thus ended up by providing a sound economic explanation of the reasons why Dr. Kissinger had to resort to destabilisation, instead of relying merely on the usual forms of economic blackmail, to destroy the Allende government.

References

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