

CAPITAL FLIGHT FROM THE PHILIPPINES, 1962-1986

James K. Boyce and Lyuba Zarsky

Introduction

This paper presents quantitative measures of the annual flow and cumulative stock of capital flight from the Philippines in the 25-year period from 1962 to 1986.

The most-publicized instances of capital flight from the Philippines involve the assets of ex-President Ferdinand Marcos, his family, and his close associates.¹ But the phenomenon was more widespread. The first Finance Minister of the Aquino government, the late Jaime Ongpin, told a group of bankers in 1986 that "every successful businessman, lawyer, accountant, doctor, and dentist I know has some form of cash or assets which he began to squirrel abroad after Marcos declared Martial Law in 1972 and, in the process, frightened every Filipino who had anything to lose" (Shaplen 1986, p.61).

Past estimates of Philippine capital flight vary widely, depending upon the data and methodology employed. For example, Erbe (1985, p. 271) reports zero capital flight in the period 1976-82, while Morgan Guaranty Trust Co. (1986) reports \$7.0 billion in the same period. The measures used in this report differ from previous estimates in that:

- a. They are based upon more complete, still unpublished estimates of the country's external debt outstanding;
- b. They include adjustments for changes in debt outstanding arising from fluctuations in the yen/dollar exchange rate;
- c. They incorporate the net effect of misinvoicing of exports and imports;
- d. They derive the cumulative stock of flight capital in real terms and with imputed interest earnings; and

Associate Professor, Department of Economics, University of Massachusetts at Amherst; and Ph.D. candidate, University of Massachusetts, respectively. The authors are grateful to Annette Balaoing, Lynn Duggan, Lester Henry, and Tania Meisner for capable research assistance, and to the referees of this journal for suggested improvements.

¹ On the search for Marcos' hidden wealth, see, for example, WGBH Educational Foundation (1987).

- e. They span a longer period. We also report measures on an annual basis so as to reveal the timing as well as the total magnitude of capital flight. Alternative estimates seem to indicate the sensitivity of the results to the methodology we employed.

The paper is organized as follows: The second section discusses the concept of capital flight and proposes a definition which rests upon the notion of contested control over capital. Section three enumerates the principal mechanisms by which capital fled the Philippines in recent decades. The fourth section presents alternative preliminary measures of annual flows of flight capital: a "hot money" measure based on balance-of-payments data, and three "residual" measures which deduct non-flight uses of external finance from total inflows to obtain estimates of capital flight. Section five explains adjustments to these measures to capture the net effect of misinvoicing of exports and imports. Section six shows the final estimates of the flows and stock of flight capital, incorporating adjustments for inflation and interest earnings to derive measures which can be compared, for example, to the country's outstanding external debt at the end of 1986. Our conclusions are summarized in the last section.

The Concept of 'Capital Flight'

Capital is mobile, albeit not perfectly so. As a whole, cumulated gross external liabilities worldwide amounted to US\$2621 billion from 1977 to 1983.² What portion of these liabilities should be considered a "capital flight" is a matter of debate.

We define capital flight as the movement of private capital from one jurisdiction to another *in order to reduce the actual or potential level of social control over the capital*. Within a country, capital can flee a particular province or region to escape legal or other social constraints. International capital flight, the object of this study, refers to such movements of capital from one sovereign nation to another.

This definition of capital flight is close to that advanced by several contributors to the recent literature on the subject. Dooley (1986, p. 15), for example, defines capital flight as those capital outflows which are "motivated by the desire of residents to obtain financial assets and earnings on those assets which remain outside the control of the domestic authorities." Similarly, Deppler and Williamson (1987, pp. 41)

² International Monetary Fund (IMF 1987b, Table 3, p. 13). At the same time, the reported increase in cumulated external assets was US\$2324 billion. This means nearly US\$300 billion of recorded inflows (liabilities) were unmatched by the recorded outflows (assets).

write that the "problem with capital flight is that resources escape those who seek to exercise some degree of control over how the funds may be used."

In this paper, capital flight as a concept rests upon the proposition that private control over capital is seldom absolute. Rather, it is circumscribed by a range of social controls. Some of these social controls are codified in existing laws; examples include taxation, exchange control which restrict the free exit of capital from a country, and regulations upon the uses to which capital can be put. Social controls also refer to societal norms and expectations which, though not formalized in law, constrain individual control over capital, and extra-legal exactions by governmental or non-governmental authorities. Moreover, there is always a *potential* for social controls to be extended should economic or political circumstances change. This risk itself constitutes another dimension of social control over private capital.

The phenomenon of capital flight thus arises from the fact that control over capital is contested.³ In the real world, absolute private control, unfettered by social control, is the exception rather than the rule. The degree and nature of social control differs among nations, and it is this differential which triggers capital flight.⁴

Capital flight is sometimes contrasted to "normal" capital outflows motivated by higher expected returns or portfolio diversification (see, for example, Cumby and Levich 1987, pp. 30-31). But while capital flight may be a response to abnormal circumstances, it is not, in and of itself, an abnormal activity. As Lessard and Williamson (1987, p. 201) remark, capital flight is "the result of individual agents reacting in the way that is posited as rational by economic theory and accepted as normal in industrial countries."

Whether capital flight is regarded as socially beneficial or harmful depends, of course, upon one's notion of social welfare; but judgments are likely to vary from case to case according to the specific circumstances. One may, for example, laud the flight of capital from Nazi Germany, but deplore the export of capital by a dictator in anticipation of his future retirement.

In theory, efforts by private owners of capital to reduce social control over their assets can be distinguished from efforts to increase the rate of return on those assets.⁵ As Walter (1987, p. 105) observes,

³ The phenomenon of "contested endowments" is akin to "contested exchange" (on which see Bowles and Gintis 1988).

⁴ In recent years, international competition for funds among "haven" countries has contributed to further loosening of taxation on non-resident investment income; see Lessard and Williamson (1987, pp. 240-241).

⁵ Consider the difference between a shift from local currency into domestically-held

one cost of the confidentiality obtained through capital flight may be a lower expected rate of return. In practice, the two motives are often conflated, making it difficult to distinguish capital flight from the broader concept of "resident capital outflow" which comprises all private, non-banking system capital exports. Moreover, the flight and non-flight motives for capital outflows may be mutually reinforcing. For example, capital flight contributes to pressure on the exchange rate, which in turn may spark efforts to increase the rate of return on assets via dollarization. This would add to pressure on the peso-dollar rate; and if this increases the probability of greater social controls on private capital, further capital flight could result.

The export of capital from the Philippines occurred for the most part in violation of Philippine law. However, the boundary between legal and illegal transfers is fuzzy, since a number of "laws" were made and modified by secret presidential decrees.⁶ As a U.S. congressional staffer told journalists, "Marcos could have exempted his friends from any one of the regulations, and you'd never be able to tell" (Carey and Ellison 1985).

In such a setting, the problem of distinguishing capital flight from other capital movements is simplified: virtually all resident capital outflows can be classified as capital flight by virtue of their illegality. Reducing social control over capital may not have been the sole motivation for capital flight, but it was one intended effect.

Mechanisms of Capital Flight

The process of capital flight from the Philippines involves two steps: the acquisition of hard currency, and the exit of capital from the country. These can be accomplished by a number of mechanisms, including the following:

dollars in anticipation of devaluation and the export of capital out of the country. Dollarization could protect the asset owner's rate of return without the loss of social control involved in capital flight. This was the Philippine government's rationale for permitting commercial and foreign banks to set up Foreign Currency Deposit Units operating under Central Bank Circular Nos. 343 and 547. The difficulties inherent in such a distinction were demonstrated in Mexico when dollar-indexed financial instruments ("Mex-dollars") were declared inconvertible at the free market rate when that country's debt crisis broke in August 1982 (Zedillo 1987, p. 182).

⁶ Presidential decrees in the early 1970s and again in 1983 made it illegal to export large amounts of cash or to hold foreign exchange accounts without Central Bank approval. For details on currency transferability restrictions, see Cowitt (1985, pp. 669-670). The legal situation was different in the mid-1960s when Philippine residents lived "under a nearly liberal currency control system" (Pick 1968, p. 417).

Cash Transfers

The physical transfer of cash or other monetary instruments payable to the bearer (such as traveller's checks or cashier's checks) is one mechanism of capital flight. In the Philippines, the main currency transferred is reportedly US dollars; these are exchanged for pesos on the black market by tourists, visiting businessmen, US military personnel, and Philippine residents working abroad.⁷ At least until the early 1980s, dollars were also sold on the "Binondo" black market by the government-owned Philippine National Bank (PNB), as reported by Thompson and Slayton (1985). "The primary motivation behind such action," according to Thompson and Slayton (1985, p. 72), "was to hurt black market traders and to facilitate their 'financial cooperation' with certain highly-placed government officials."

Acquired dollars in the Philippines can be physically transferred in three principal ways:

- a. via personal smuggling;
- b. via the use of hired couriers who charge a fee (Carey and Ellison [1985] report a figure of five percent) for guiding the money past customs officials; and
- c. via the mails.⁸

Newspaper reports indicated that following the Aquino assassination in 1983, as much as US\$3 million per day was leaving the Philippines through the Manila airport (Carey and Ellison 1985).

A variant on the cash transfer mechanism is the wire transmission services provided by the black marketeers based in Manila's Binondo district; these are known collectively as the "Binondo Central Bank." The Binondo bankers acquire dollars on the black market and smuggle them to Hong Kong for deposit in major banks. An individual can provide pesos to a Binondo intermediary, who instructs a Hong Kong bank to wire dollars to the customer's overseas account. The customer then confirms that the deposit was made by contracting his or her overseas bank.⁹

⁷ Exports of pesos are less common although there is a market for Philippine currency in Hong Kong.

⁸ Carey and Ellison (1985) report a case in which Deak & Company's San Francisco office received US\$11 million sent from the Philippines in envelopes marked "documents;" the company was convicted of banking law violations by US federal court for failing to report the transaction.

⁹ This process is described by Carey and Ellison (1985) who report that former Defense Minister Juan Ponce Enrile was among those who used the Binondo transmitters.

False Invoicing of Exports and Imports

Manipulation of trade invoices provides another important mechanism of capital flight. Exporters of goods from the Philippines are required by law to surrender their foreign currency earnings to the government for conversion into pesos. To circumvent this requirement and accumulate foreign currency abroad, the exporter can understate the true price or quantity of the goods in question on the invoice; the difference between the invoice value and the actual value is then deposited abroad. In the case of imports, the same objective can be achieved through overinvoicing: the importer takes an invoice with an inflated value to the Central bank to obtain the necessary foreign exchange, which is then transferred to the supplier, who in turn deposits the difference in accordance with the importer's instructions.

False invoicing is widely believed to have been a major avenue for Philippine capital flight. Cowitt (1985, p. 675) reports that "underinvoicing of exports and overinvoicing of imports represented a major part of the trade [in the foreign currency black market], while banknote smuggling accounted for less than 10 percent."

Kickbacks

Providing kickbacks on import contracts, referred to in polite company as "commissions," has a similar effect as import overinvoicing. In this case, the foreign supplier pays an individual a portion of its proceeds from the sale of goods or services to the Philippines. The exchange occurs abroad, but the ultimate source of the hard currency is the payment for the imports in question. Perhaps the most famous example of this in the Philippines is the US\$80 million paid to Herminio Disini by Westinghouse Corporation "for assistance in obtaining the contract and for implementation services" in the sale of a nuclear power plant to the Philippine government. A lawyer who worked on the contract for the supply of the power plant told *The New York Times*:

"There was nothing illegal about this contract. But if you look at the terms closely, you will see that the price of the equipment being sold to the Philippines was inflated, as a way to cover the cost of the fees to Disini."

In a memo to President Marcos, the Chairman of the Board of Investments described the transaction as "one reactor for the price of two."¹⁰

¹⁰The *Times* reported that 95 percent of Disini's fees were then transferred to Marcos (Butterfield 1986). Criminal investigations of the payments by the US Justice

Another documented example is the purchase of telecommunications equipment, financed by the US government's Foreign Military Sales program, from shell companies which in turn obtained "sham marketing contracts" with the actual producers "in order to kick back between 35 percent and 50 percent of their proceeds" (Pasztor 1987).¹¹

Inter-Bank Transfers

The role of inter-bank transfers in capital flight is among the most controversial aspects of the phenomenon, particularly in countries with foreign exchange controls. Local banks, or local affiliates to foreign banks, have the ability both to provide foreign exchange and to transfer it to designated recipients abroad; the only problem is that this is often illegal.

Water (1987, p. 115) asserts that "banks of international standing tend to avoid direct involvement in the capital flight process itself." They do this by preserving what in the US political lexicon is termed "deniability".

"They generally have multiple domestic and foreign relationships with governments, public- and private-sector entities, individuals and multinational firms, and exposure, especially of illegal capital flight activities, is likely to lead to business losses greater than prospective gains."

Within this constraint, however, the banks are by no means averse to flight capital:

"[A]ll such institutions will actively solicit fiduciary and other business from individuals and institutions engaged in capital flight once the assets are safely offshore. They will also assiduously cultivate the various clients involved. In that sense they may help to reduce information and transaction costs."

While the first-tier banks "will tend to stay well clear of illegal acts," Walter notes that "among the foreign-based financial institutions, there are plenty of second-tier players and shady operators who have far fewer

Department were dropped without bringing charges (Pasztor 1987). Further details on the financial negotiations leading to the reactor sale are reported by Bello, Hayes and Zarsky (1979, pp.9-10) and Dumaine (1986).

¹¹The Wall Street Journal reports that former Philippine armed forces commander General Fabian Ver is "a principal subject" of continuing grand jury investigations into this case (Pasztor 1987). See also Ellison and Carey (1985).

long-term stakes in the game, and are more than willing to turn a fast profit at the edge of the law or ethical behavior."¹²

One variant of the inter-bank transfer mechanism is the "hidden deposit" placed by a Filipino with dollars in the Philippine branch of a domestic or international bank with overseas branches:

"He or she deposits \$115 in the Philippine branch and makes a private agreement with the bank never to withdraw that money. The bank then provides the depositor with a \$100 loan from an overseas branch of the bank."

The bank profits by the difference between the amount deposited and the amount "loaned", and through "tax advantages it gains by having an outstanding loan in its overseas branch" (Carey and Ellison 185)

Measurement of Capital Flight

The measurement of capital flight requires some statistical detective work, since the investors involved "are unlikely to make a point of informing the compilers of balance of payments statistics of their actions" (Lessard and Williamson 1987, p. 205). Several measures, based on different techniques employed in the recent capital flight literature, are discussed below.

"Hot Money" Measure

A relatively narrow measure of capital flight advanced by Cuddington (1986; 1987) is the sum of certain private, non-bank, short-term capital movements plus net errors and omissions as recorded in the balance of payments. This aims to capture only highly liquid "speculative" capital outflows; errors and omissions are included "because of the widespread belief that [they] largely reflect unrecorded short-term capital flows" (Cuddington 1986, pp. 2-3).¹³

¹²Among such "second-tier" institutions was the Australia-based Nugan Hand Bank whose Manila representative was General LeRoy Manor, the former commander of the US military bases in the Philippines, who negotiated their renewal with the Philippine government in 1979. Nugan Hand's known clients include Elizabeth Marcos (sister of the President) and her husband Ludwig Rocka, who deposited US\$3.5 million with the bank according to records found after its collapse in 1980. See Kwitny (1987, pp. 34-37, 186-193). Affidavits filed with the Philippine Presidential Commission on Good Government and documents found in Malacanang Palace indicate that President Marcos himself also sent funds abroad via inter-bank transfers (Malone 1987, pp. 29,31).

¹³"Net errors and omissions" are reported as a subheading under "Short-Term Capital" in the "analytic presentation" for the Philippines in some issues of the IMF

Deppler and Williamson (1987, p.43) remark that the measure is "probably restrictive," since long-term assets such as equities and real estate "may be relatively close substitutes" for short terms assets. Even if the aim is to focus only upon the "hot component" of flight capital, which moves most quickly in response to changing economic and political conditions, the measure may be overly narrow. As Cumby and Levich (1987, p. 35) observe, "In today's international financial markets, there is very little loss of liquidity associated with acquiring long-term bonds (especially US government bonds, corporate bonds traded on US markets, or Eurobonds) or equities." The hot money measure can thus be regarded as an estimate of the lower bound on total capital flight, where the latter is defined to include all transfers which reduce social control over private capital owned by residents.

The application of this measure to the Philippines gives the "hot money" estimates reported in the first column of Table 1.¹⁴ Net outflows (here bearing a positive sign) were recorded in every year except 1984 and 1985, with a peak of US\$1.2 billion in 1981. The cumulative (nominal) outflow by this measure, with no adjustment for inflation or interest earnings on externally held assets, was US\$5.6 billion, of which US\$4.0 billion fled from 1976 to 1986. Despite the narrowness of this measure, the volume of capital flight it captures is quite substantial.

The apparent net inflow of "hot money" in 1984 and 1985 disputes the conventional wisdom that massive capital flight followed the August 1983 Aquino assassination. One possible explanation is that with the collapse of foreign lending to the Philippines, an important source of financing for capital flight dried up; another is that speculative capital was drawn back to the Philippines by the very high-interest "Jobo bills" issued by the Central Bank (CB) in 1984.

Residual Measures

A set of broader measures of capital flight begins with changes in the country's total external debt outstanding, including gross banking

Balance of Payments Yearbook; see, for example, Vol. 28 (1977), p. 489. The IMF (1977, p. 51) states that this practice is followed when "there is evidence to suggest that the variations reflect mostly unrecorded short-term movements of capital." Dornbusch (1985, pp. 227-229) employs a similar definition of capital flight.

¹⁴This measure includes, in addition to net errors and omissions, those short term, non-bank, private capital movements recorded as "other assets" or "other liabilities" in the balance of payments. Entries under the heading "other loans received" (which correspond to entries under the heading "trade credits" in earlier volumes) are excluded since these primarily refer to trade financing. The same technique is used by Cumby and Levich (1987, pp. 60-61) in their calculation of the Cuddington measure for the Philippines for the years 1976-1984.

Table 1
CAPITAL FLIGHT FROM THE PHILIPPINES, 1962-1986
(US\$ million)

Year	Hot Money ^a	Residual Measures ^b		
		Inclusive	Non-Bank	Non-Reporting
1962	8	6	25	6
1963	130	175	158	175
1964	160	165	172	165
1965	191	380	343	380
1966	73	268	223	268
1967	60	361	357	361
1968	129	31	7	31
1969	117	174	200	159
1970	158	347	356	362
1971	99	- 41	- 66	- 64
1972	104	136	- 32	- 1
1973	25	10	- 310	34
1974	120	62	- 267	- 1193
1975	220	406	289	1171
1976	460	900	1305	1225
1977	127	645	722	37
1978	227	566	172	660
1979	643	1108	705	1550
1980	267	579	- 237	213
1981	1205	2240	2269	1698
1982	734	1487	1280	1286
1983	248	- 495	215	- 1455
1984	- 197	- 589	- 711	- 1134
1985	- 248	- 208	- 140	- 933
1986	506	732	693	1773
Cumulative Totals: ^c				
1962-69	868	1560	1485	1545
1970-75	727	920	- 30	309
1976-80	1724	3798	2667	3685
1981-86	2248	3167	3606	1235
1962-86	5567	9446	7729	6774

a. Hot money = Sum of "other short-term capital of other sectors: other assets" (or equivalent entries in earlier years) plus "net errors and omissions," as reported in IMF, *Balance of Payments Statistics Yearbooks*.

b. Residual measures calculated from data in Table 2.

"Inclusive" = Increase in external debt outstanding minus yen/dollar adjustment, minus current account deficit, minus net direct investment outflow, minus increase in official reserves.

"Non-bank" = Inclusive measures minus increase in commercial banks' external assets.

"Non-reporting" = Inclusive measure minus "non-flight" capital outflows.

c. Rounded figures

system liabilities. Annual estimates of the Philippine external debt are discussed in Appendix A. Various non-flight uses of this external capital are deducted to arrive at a residual measure of capital flight. Three variants are presented here:

- a. an "inclusive" measure calculated as changes in gross foreign debt minus net direct investment outflow, the current account deficit, and increases in official reserves;
- b. a "non-bank" measure in which additions to commercial banking system assets held abroad are also deducted; and
- c. a "non-reporting" measure which excludes those externally held assets generating investment income reported as credits in the Philippine balance of payments.

All three are reported in Table 1; the data on changes in gross external debt and non-flight uses of external capital from which the measures are derived are reported in Table 2.¹⁵

Each of these measures includes an adjustment for the effect of yen/dollar exchange rate variations upon the dollar value of the Philippine external debt. The dollar value of yen-denominated debt rises as the yen appreciates and declines as it depreciates, contributing to the year-to-year changes in external debt outstanding reported in Table 2. Precise data on the currency composition of the Philippine external debt are not available, but the National Economic Development Authority (NEDA) data on the distribution of debt by creditor permit the calculation of the share of debt to Japanese banks, the Japanese government, and Japanese suppliers' credits.¹⁶ Multiplying this percentage by total debt as reported in Appendix A (see Table A.2) yields an estimate of the dollar value of yen-denominated debt at end of each year. The yen-dollar adjustment factor reported in Table 2 is the change in dollar value of the previous year's yen denominated debt when revalued at the end-of-the-year exchange rate. The adjustment was zero in the 1960s, when the yen share of total debt was relatively low and the yen/dollar rate relatively stable; it was largest in 1985 and 1986, when the yen appreciated strongly.

¹⁵In keeping with the usual practice in the literature, direct investment outflows from the Philippines are treated here as non-flight capital. The definition of capital flight proposed above does not, however, necessarily exclude direct investment outflows. The current quantities involved are so small that their treatment makes little difference.

¹⁶NEDA (1974, pp. 280-281; 1976, pp. 398-399; 1986, pp. 606-607). This share averaged approximately 10 percent in the period and rose overtime. Unpublished data furnished by the Central Bank indicate that 25.7 percent of foreign exchange liabilities, excluding liabilities to multilateral agencies, were to Japan at the end of the period equivalent to 20 percent of total liabilities.

Table 2
NON-FLIGHT FOREIGN EXCHANGE OUTFLOW, 1962-1986
(US\$ million)

Year	Foreign Exchange Outflow*								
	Change in External Debt Out- standing ^a	Yen Dollar Adjust- ment ^b	Current Account Deficit			Net Direct Investment	Increase in Official Reserves	Increase in Commercial Banks' External Assets	"Non-flight" Capital Outflows ^d
			Total	Non- Investment Income	Net Investment Income				
1962	0	0	-30	-47	17	3	21	-19	NA
1963	20	0	-182	-199	17	4	23	17	NA
1964	100	0	-85	-111	26	4	16	-7	NA
1965	320	0	-137	-168	31	10	67	37	NA
1966	110	0	-161	-198	37	15	-12	45	NA
1967	370	0	25	-51	76	9	-25	4	NA
1968	210	0	250	153	97	3	-74	24	NA
1969	340	0	253	175	78	-6	-81	-26	15
1970	470	0	48	-82	130	29	46	-9	-15
1971	90	27	2	-99	101	4	97	25	23
1972	340	5	-7	-132	126	22	184	168	137
1973	160	22	-474	-588	113	-64	658	320	-24
1974	870	-29	207	153	54	40	591	329	1255
1975	1180	-10	924	798	126	-124	-16	117	-765
1976	1830	27	1102	849	253	-142	-57	-405	-325
1977	1300	146	755	422	339	-215	-30	-77	608
1978	2520	185	1093	687	406	-100	876	394	-94
1979	2860	-300	1496	932	555	-21	376	403	-442
1980	3900	357	1901	1069	832	103	960	816	356
1981	3640	-164	2089	1047	1042	-176	-349	-29	542
1982	3790	-176	3196	1372	1826	-17	-703	207	202
1983	140	38	2753	977	1776	-111	-2044	-710	960
1984	600	-325	1257	-848	2104	-6	263	122	545
1985	830	1155	26	-1975	2002	-20	-123	-68	725
1986	2010	1298	-991	-2941	1950	-140	1111	39	-1041
Cumulative									
Totals:									
1962-69	1470	0	-67	-446	379	42	-65	75	15
1970-75	3110	15	700	49	651	-94	1569	950	611
1976-80	12310	415	6346	3958	2388	-375	2125	1131	114
1981-86	11010	1826	8332	-2367	10699	-469	-1845	-439	1933
1962-86	27900	2255	15311	1194	14117	-896	1784	1717	2672

NA = not available.

- Including gross external liabilities of the banking system.
- Adjustment for appreciation (+) or depreciation (-) of yen-denominated debt.
- Outflows positive, inflows negative (opposite of balance of payments sign convention).
- Calculated as the ratio of private, non-direct investment income credits to the short-term US Treasury bill interest rate.

Sources: Change in external debt outstanding from Table A.2.

Yen/dollar adjustment based upon percentage share of Japanese in total liabilities from NEDA (1976, pp. 400-401; 1986, pp. 608-607) and unpublished Central Bank data, and exchange rates reported in International Financial Statistics (IFS 1987, pp. 424-425).

Current account deficit, net direct investment, and change in reserves from IMF, *Balance of Payments Statistics Yearbook*; various issues (in cases of conflict, data from more recent issues are used); commercial banks' external assets from IMF, International Financial Statistics 1987, pp. 558-559, line 7 a.d; non-direct investment income credits from *Balance of Payments Statistics Yearbooks*, line 19; Treasury bill rate from IFS 1987, pp. 698-699; line 80c.

The inclusive measure. The inclusive variant of the residual measure pegged the total capital flight from the Philippines in the 1962-86 period at US\$9.4 billion. This is perhaps the most widely used measure of capital flight. For example, it is employed by Diaz-Alejandro (1984, pp. 362-363), Sachs (1984, p.397), the Bank for International Settlements (1984, p. 101), Erbe (1985), and the World Bank (1985, p.64).¹⁷

The formula by which this measure is derived can be traced in Table 2. The total increase in external debt outstanding in this period reached US\$27.9 billion; of this, US\$2.3 billion was attributable to the rise in the dollar value of yen-denominated debt, with an adjusted inflow of US\$25.6 billion. Direct investment also contributed a net inflow of US\$0.9 billion. The adjusted "gross capital inflow" was thus US\$26.5 billion. Of this amount, US\$1.2 billion covered the cumulative deficit on the non-investment income portion of the current account. A further US\$14.1 billion represented net investment income payments primarily composed of interest payments on the external debt itself. Net additions to the country's official reserves amounted to US\$1.8 billion. The remainder — US\$9.4 billion — is the inclusive estimate of capital flight.

Although the broadest among the residual measures, this computation is incomplete in that it excludes capital flight through false trade invoicing and the interest earnings of flight capital. It also includes unrecorded foreign exchange outflows used to finance the smuggled portion of Philippine imports. Adjustments for these are considered below.

The non-bank measure. The non-bank measure of capital flight deducts from the preceding measure US\$1.7 billion in external assets accumulated by Philippine commercial banks over the 1962-86 period; this yields a total capital flight estimate of US\$7.7 billion. The Morgan Guaranty Trust Company of New York (1986) used the measure in its widely reported capital flight estimates. Whether or not private banking system assets should be excluded from the measure of capital flight is open to debate. Cumby and Levich (1987, pp. 32-33) question whether there is sound "justification for treating the banking system differently from other firms and individuals." Cuddington (1986, p.4, n. 2) offers the rationale that "the central bank directly and indirectly controls a large fraction of commercial banks' foreign assets in many developing countries."

In the Philippines, government financial institutions (such as the Philippine National Bank and the Development Bank of the Philippines) and "political banks," which enjoyed a "special relationship with the group

¹⁷Two of these authors, Sachs and Erbe, report estimates for the Philippines. These and other estimates are discussed in Appendix B.

in government," accounted for more than half of the total assets of the commercial banking system in 1982 (De Dios *et al.* 1984, p. 38). The degree of social control over the external assets of these banks is open to doubt. As Patrick and Moreno (1985, p. 363) observe, the political power of major financial groups implies that "they do not have to take as given the rules of the economic game as determined by government." The inclusive measure of capital flight may thus be preferable to the non-bank measure.

The non-reporting measure. The final variant of the residual measure is based on the proposition that some private, non-direct investment capital outflows are motivated not by a desire to reduce social control over private capital, but rather by a simple desire for portfolio diversification. Dooley (1986, pp. 3, 15) proposes that capital flight be defined as "that part of the estimated stock of external claims that yields no recorded investment income to the creditor country." Failure to report investment income, he argues, is evidence of a "desire of residents to obtain financial assets and earnings on those assets which remain outside the control of the domestic authorities."

Private, non-direct investment income credits are reported in the balance of payments; combining these with data on overseas interest rates (for which the short-term US Treasury bill rate serves as a convenient indicator), one can derive an estimate of the stock of non-flight private external assets (including those of commercial banks). The year to year changes in this stock are reported under the heading "non-flight capital outflows" in Table 2. Deducting this from the inclusive capital flight measure gives what is here termed the "non-reporting" measure of capital flight: a total of US\$6.8 billion in the period 1962-86.

Is the absence of recorded investment income really a better indicator of loss of social control than the simple transfer of capital out of the country? As Dooley (1986, p.15) notes, capital flight by this definition can occur after the actual transfer of capital: it "does not require a change in the stock of total claims on nonresidents but only that earnings on existing claims be placed outside the control of the domestic authorities," hence "capital flight can occur, and be reversed, very rapidly." If external assets can be readily transformed in this way, this suggests that, in practice, exit itself entails substantial loss of social control — an argument in favor of the inclusive over the non-reporting measure.

Misinvoicing Adjustment

The foregoing measures of capital flight do not take into account the impact of export and import misinvoicing. As noted above, underin-

voicing of exports and overinvoicing of imports are believed to be important vehicles for capital flight. If so, the trade and current account deficits are overstated, and capital flight as estimated by the hot money and residual measures is understated.

On the other hand, "technical smuggling" via *under* invoicing of imports, and "pure smuggling" in which legal import channels are bypassed completely, are also reported to have been widespread in the Philippines. The motive in this case is the evasion of tariff and other import barriers. This has the opposite effect: the trade and current account deficits are understated, and capital flight is overstated since funds which appear to have fled the country are in fact used to finance unrecorded imports.

The net impact of misinvoicing upon total estimated capital flight is the sum of these two contradictory effects.

Table 3 presents annual estimates of the net impact of misinvoicing for the period under review. These are based on comparisons of trade flows as recorded by the Philippines and its industrial country trading partners, as reported in the IMF's *Direction of Trade Yearbooks*. In 1986, for example, the Philippines reported exports to the United States with a total value of US\$1.71 billion, while the US reported imports from the Philippines with a total value of US\$2.15 billion. Adjusting for freight and insurance costs (using the Philippine FOB/CIF ratio reported annually in the IMF's *International Financial Statistics*), the comparison indicates that Philippine exports to the US were underinvoiced by US\$320 million in that year. Total discrepancies for industrial country trading partners are scaled upwards (by their ratios to total Philippine exports and imports in a given year) to generate the global estimates reported in the table.¹⁸

On the export side, the data reveal a consistent pattern of underinvoicing. In all but two of the 25 years, the value of imports from the Philippines recorded by its trading partners exceeded the value of exports (adjusted for shipping costs) recorded by the Philippines. As a whole, the average discrepancy for the period was equivalent to 13 percent of the recorded value of exports; in the 1980s it rose to 24 percent, or nearly US\$1.2 billion per year.¹⁹

On the import side, the data show consistent under - rather than

¹⁸This methodology relies upon the assumption that the trade data reported by the industrial countries are reasonably accurate. Gulati (1987, p. 70), who employs the same technique, reports that trade data comparisons among the industrial countries indicate that this assumption is "for the most part realistic."

¹⁹Exports to the Philippines by top three trading partners — the United States, Japan, and West Germany — were underinvoiced by averages of 7 percent, 20 percent and 71 percent, respectively. The extraordinarily high figure for West Germany may be partly attributable to misidentification of the final export destination as the Netherlands; trade data comparisons reveal consistent "overinvoicing" of Philippine exports to the latter.

Table 3
TRADE INVOICING DISCREPANCIES, 1962-1986
 (US \$ million)

Year	Export Discrepancy ^a	Import Discrepancy ^b	Capital Flight Mis invoicing Adjustment ^c
1962	81	51	30
1963	- 3	209	- 212
1964	37	161	- 124
1965	29	183	- 155
1966	72	184	- 111
1967	144	223	- 79
1968	178	305	- 127
1969	305	312	- 7
1970	129	319	- 190
1971	112	286	- 174
1972	101	248	- 147
1973	- 46	298	- 344
1974	63	- 32	96
1975	458	203	255
1976	133	253	- 121
1977	250	266	- 16
1978	438	659	- 221
1979	593	640	- 47
1980	949	623	326
1981	1071	593	477
1982	1181	541	640
1983	870	1194	- 324
1984	1395	803	592
1985	1516	886	630
1986	1223	923	300
Total ^d	11277	10332	945

- a. Export discrepancy = Trading partners' imports from the Philippines — (recorded Philippine exports x (CIF/FOB factor)).
- b. Import discrepancy = (Trading partners' exports to the Philippines x CIF/FOB factor) — recorded Philippine imports.
- c. Mis invoicing adjustment = Export discrepancy — import discrepancy.
- d. Figures were rounded.

Sources: IMF, *Direction of Trade Yearbooks*.
 IMF, *International Financial
 Statistics, 1987*, pp. 126-127, for CIF/FOB factors.

overinvoicing. This indicates that capital flight through import overinvoicing was exceeded in magnitude by smuggling through underinvoicing or non-reporting of imports. The average net discrepancy was equivalent to 15 percent of the recorded value of imports; in the 1980s it fell to 11 percent.²⁰

In the 1960s, the misinvoicing adjustment to capital flight estimates is downward: impact of smuggling swamped not only import overinvoicing but export underinvoicing as well. In the 1970s, the picture is mixed, with export underinvoicing exceeding the net import underinvoicing in two years and almost equalling it in two others. In the 1980s, the capital flight effect generally overwhelmed the smuggling effect, necessitating upward adjustments of our previous capital flight estimates. The misinvoicing adjustment consequently has a noticeable impact upon the time trend of capital flight. Its net effect upon total estimated nominal capital flight in 1962-86 is an additional US\$945 million.

It should be emphasized that this fairly modest total does not imply that trade invoice manipulation has been a relatively unimportant mechanism of capital flight. On the contrary, export underinvoicing alone amounted to \$11 billion in the entire period. The misinvoicing adjustment captures the net effect of a) capital flight via false trade invoicing; and b) the use of unrecorded capital outflows to finance the undeclared portion of Philippine imports.²¹ It is quite possible that cash and wire transfers were the major mechanisms for undeclared import finance, while export underinvoicing and import overinvoicing were primarily vehicles of capital flight.

Inflation and Interest Adjustments

Inflation and interest adjustments are reported in Table 4 for two alternative summary estimates of capital flight from the Philippines. Measure A is the inclusive variant of the residual measure reported in Table 1 plus the misinvoicing adjustment reported in Table 3. Measure B is the narrow, "hot money" measure reported in Table 1 plus the misinvoicing adjustment. The former is, in our judgment, the best measure of capital flight as defined here,²² the latter is reported as a

²⁰Imports by the Philippines from the US, Japan, and West Germany were under-reported by averages of 12 percent, 25 percent and 4 percent respectively in that period.

²¹A notion of the scale of the latter can be derived from Alano's (1984, pp. 185-187) estimate that in the period 1965-1978, smuggled imports represented 29 percent of the value of exports to the Philippines as recorded by its trading partners.

²²In this paper, capital flight is defined in terms of loss of social control. If loss of access to the foreign exchange earnings on capital (and consequent reduction in debt servicing capacity) were our primary concern, then the restrictive measure would be more appropriate.

Table 4
SUMMARY ESTIMATES OF CAPITAL FLIGHT FROM
THE PHILIPPINES, 1962-1986
(US \$ million)

Year	Annual Flow				Cumulative Stock (with interest adjustment) ^b	
	Nominal (current \$)		Real (1986 \$) ^a		A	B
	A	B	A	B		
1962	36	38	255	269	37	39
1963	- 37	- 82	- 251	- 561	1	- 43
1964	41	36	271	240	42	- 8
1965	226	36	1436	231	274	29
1966	157	- 38	958	- 235	448	- 9
1967	282	- 19	1703	- 113	756	- 29
1968	- 96	2	- 565	13	698	- 28
1969	167	110	942	620	917	84
1970	157	- 32	842	- 174	1138	56
1971	- 215	- 75	- 1110	- 387	967	- 18
1972	- 12	- 43	- 56	- 212	995	- 63
1973	- 334	- 319	- 1439	- 1373	719	- 398
1974	158	216	552	757	939	- 205
1975	661	474	2122	1524	1674	272
1976	779	339	2273	989	2556	633
1977	628	111	1670	295	3336	780
1978	345	6	852	14	3934	842
1979	1061	596	2287	1285	5444	1553
1980	905	593	1661	1087	7035	2361
1981	2717	1692	4407	2729	10934	4494
1982	2127	1374	3105	2006	14347	6423
1983	- 820	- 76	- 1074	- 100	14728	6898
1984	3	395	3	455	16141	7971
1985	422	382	436	395	17787	8965
1986	1032	806	1032	806	19912	10329
Total	10391	6512	22312	10561	(19912)	(10329)

Key: A = Inclusive residual measure plus misinvoicing adjustment.

B = Hot money measure plus misinvoicing adjustment.

- a. Converted to 1986 dollars using world wholesale price index as reported in IMF, *International Financial Statistics 1987*, pp. 110-111.
- b. End-of-year cumulative totals, including interest calculated on mid-year cumulated stock (using short-term US Treasury bill rate as reported in *International Financial Statistics 1987*, pp. 698-699).

minimal estimate of capital flight.

In nominal terms, total capital flight from the Philippines from 1962 to 1986 amounted to US\$10.3 billion (by our preferred measure A). Its magnitude relative to the country's US\$28.3 billion external debt outstanding at the end of 1986 can be better appreciated by converting the annual flows into real terms, or alternatively by imputing interest upon the stock of flight capital accumulated over the period. The results of both types of adjustments are reported in Table 4. The total value of capital flight from the Philippines (by measure A) in 1986 dollars was US\$22.3 billion — equivalent to 79 percent of the country's external debt.²³ The cumulative stock of flight capital, based on the interest rate of US Treasury bills, stood at \$19.9 billion at the end of 1986.

Concluding Remarks

Capital flight from the Philippines did not commence in the mid-1970s. In the eight years preceding the 1970 foreign exchange crisis, capital flight (estimated by our preferred measure) amounted to US\$776 million, equivalent to US\$4.7 billion in 1986 dollars. However, the outflow of flight capital in real terms appears to have peaked in 1976 and again in 1981-82. Notwithstanding their differences, each of the alternative capital flight measures reported above displays broadly similar trends.

Measures of capital flight are necessarily imperfect. In particular, none of the measures reported above captures capital flight occurring through the mechanism of kickbacks on import contracts. Unlike false invoicing, this cannot be detected by trading partner data comparisons, since the kickbacks enter into the purchase price reported by both parties. If capital flight by this mechanism was substantial, the estimates reported here may be too low.²⁴ Insofar as dollars supplied to the black market are unrecorded in the Philippine balance of payments, their re-export also escapes detection. A further avenue for non-detectable capital flight may be transactions between Philippine residents working abroad who wish to obtain pesos at the black market rate, and those in the Philippines who wish to acquire dollars for transfer abroad.²⁵

²³The corresponding real totals for the non-bank and non-reporting variants of the residual measure are US\$16.6 and US\$16.8 billion, respectively.

²⁴On the export side, the practice of "re-invoicing," whereby Philippine exporters "sell" goods at a low price to a foreign-based company which in turn re-sells them at a higher price to the final buyer, likewise escapes detection. Carey and Ellison (1985) report that some exporters established front companies in Hong Kong for this purpose.

²⁵Rather than smuggling dollars to their families in the Philippines via a "network of couriers" (as reported by Cowitt, 1985 p. 671), overseas workers could sell dollars abroad for pesos at home, eliminating the costs and risks of currency smuggling in both directions. We have found no reference to such transactions in the literature, but it is unlikely that the opportunities for intermediation have escaped the notice of Binondo bankers.

The estimates presented above nevertheless indicate that capital flight from the Philippines from 1962 to 1986 was substantial indeed. Our best estimate is that capital flight during this period amounted in real terms to almost four-fifths of the country's external debt outstanding at the end of 1986. The policy implications of this finding are open to debate; the magnitudes involved suggest that the debate should be vigorous.

Appendix A: The Philippine External Debt, 1962-1986

This appendix reviews the available data on growth of the Philippine external debt and its composition in terms of type of borrower (public or private sector). The Philippine Central Bank established a statistical system in 1971 to monitor the country's external debt. Although the World Bank (1984, p. 43) has characterized it as "one of the best in Asia and the Far East," substantial discrepancies still exist among Philippine external debt estimates reported by different sources.

One reason for these discrepancies is that many estimates rely upon incomplete data on the volume of debt. Another is the use of different definitions of external debt.

Some Definitional Problems

One definitional distinction is between loan *commitments* and loan *disbursements*. In official development assistance project loans, for example, funds committed at the start of the project are typically disbursed over a number of years as construction or other project activities proceed. In these cases, the data presented here pertain to actual disbursements. Similarly, in the case of the monetary sector (the Central Banks and commercial banks), credit lines may be drawn down gradually; sometimes they are never drawn at all. The opening of a credit line represents a commitment, while drawings upon that credit line represent disbursements.

A second distinction is between *gross* and *net* external liabilities of the Central Bank and commercial banks. The Central Bank has both external liabilities and international reserves. Similarly, Philippine commercial banks have cross-border deposits which constitute external liabilities, but at the same time hold external assets including deposits in foreign banks. Net external liabilities of the banking system are gross external liabilities minus gross external assets. In keeping with the general practice, the Philippine external debt is here defined to include gross external liabilities of the banking system. Increasing the banking system's international reserves is thus one possible use of foreign borrowing.

A further definitional point relates to the treatment of the assets and liabilities of offshore banking units (OBUs), whose establishment in the Philippines was permitted by a 1976 Presidential Decree. Twenty-eight foreign banks had set up OBUs in the Philippines as of 1984; they borrow and lend in foreign currencies "outside the regulatory framework of banks operating in the Philippines" (IMF 1984, pp. 69-70). Contrary to standard practice in many countries, the Philippine statistical authorities

treat OBUs as overseas bank. Thus OBU lending to the Philippine residents is included in the country's external debt statistics, while OBU external liabilities are not. As of June 1986, Philippine debt to OBUs stood at US\$2.5 billion, while the OBUs owed US\$3.7 billion to other foreign entities. The net effect was to understate the Philippine external debt (compared with that which would result from the conventional treatment of OBUs) by US\$1.2 billion. The debt statistics reported here were provided by Philippine authorities, and hence follow their practice in this regard.

A final definitional distinction is between public sector debt and private sector debt. Two practices blur the distinction. First, foreign debts have been incurred by government agencies for on-lending to the private sector. For example, the government-owned Philippine National Bank provided "the chief conduit for private external debt" in the early 1970s (Wellons 1977, p. 163). Similarly, the Central Bank's Consolidated Foreign Borrowing Program (CFBP), established in 1978, borrows (primarily from foreign commercial banks) in the name of the Central Bank and on-lends the proceeds to private and public sector borrowers via Philippine banks. By the end of 1982, total CFBP on-lending stood at US\$2.0 billion, of which more than half represented refinancing of prior foreign obligations (IMF 1984, p. 65; World Bank 1984, p.39). In theory, foreign funds on-lent to the private sector are recorded as private external debt, together with direct borrowing by the private sector. The second practice refers to the Philippine government guaranteeing the repayment of much private debt. Considerable amounts of publicly guaranteed private obligations were in the end assumed by the public sector as private borrowers defaulted, but the classification of such debt prior to default may differ among data sources (see Wellons 1977, pp. 164, 186).

Data Sources

The time series for the Philippine external debt utilized in this paper is based on data from several sources. These are summarized in Table A. 1, and the reconstructed 1962-86 time series is reported in Table A.2.

After the Philippine debt moratorium was declared in October 1983, the government revealed that the country's total indebtedness as of October 17 reached US\$24.6 billion, a sharp jump from the previously accepted figure of US\$18 billion. (Rafferty 1983, p. 101; Peagam 1984, p. 57). The discrepancy arose primarily from the exclusion of the monetary sector debt and revolving (as opposed to fixed short-term) credits from prior estimates issued by the Central Bank; these turned out to be much higher than had been previously known. The Central Bank

Table A.1
ALTERNATIVE ESTIMATES OF TOTAL PHILIPPINE EXTERNAL DEBT
OUTSTANDING, 1961-1986^a
(US\$ million)

Year	Jurado	Wellons/ NEDA ^b	Central Bank ^c	IMF	Aifiler
1961	355	278			
1962	358	271			
1963	376	252			
1964		304			
1965		481			
1966		516			
1967		680			
1968		737			
1969		840			
1970		956	2297	2297	
1971		1009	2393	2368	
1972		1171	2732	2663	
1973		1225	2886	2846	
1974		1519	3755	3538	3900
1975		2234	4939	4392	5200
1976		3323	6768	6345	7200
1977		3889	8069	8035	8600
1978		5281	10694	10608	11200
1979		6528	13352	13192	13900
1980		8522	17252	17122	18100
1981		11304	20893	20291	21800
1982		13887	24677	23797	25000
1983		14482	24816	24972	26200
1984			25418		25900
1985			26252		
1986			28256		

a. End-of-year estimates.

b. "Public" sector only; see text.

c. Unpublished data provided by the Central Bank of the Philippines, Department of Economic Research (International) and Financial Plan Data Center.

Source: Jurado (1966, Table 4, p.373); Wellons (1977, Table 1 (1), p.162); NEDA (1976, Table 11.8, pp.398-9); NEDA (1986, Table 15:12, pp.606-7); IMF (1984, Table 12, p. 72); Aifiler (1986, Table 1, p. 23).

Table A.2
EXTERNAL DEBT OF THE PHILIPPINES, 1961-1986^a
(US \$ billion)

Year	Total	Borrowing Sector		Real Total
	Outstanding	Public	Private	(1986 \$) ^b
1961	0.36	0.17	0.19	2.58
1962	0.36	0.19	0.17	2.53
1963	0.38	0.23	0.15	2.60
1964	0.48	0.28	0.20	3.18
1965	0.80	0.46	0.34	5.09
1966	0.91	0.50	0.41	5.56
1967	1.28	0.68	0.60	7.72
1968	1.49	0.76	0.73	8.79
1969	1.83	0.90	0.93	10.33
1970	2.30	1.10	1.20	12.37
1971	2.39	0.92	1.47	12.35
1972	2.73	1.11	1.62	13.39
1973	2.89	1.15	1.74	12.44
1974	3.76	1.57	2.19	13.19
1975	4.94	2.33	2.61	15.87
1976	6.77	3.52	3.25	19.74
1977	8.07	4.03	4.04	21.45
1978	10.69	5.69	5.00	26.38
1979	13.35	7.65	5.70	28.77
1980	17.25	10.25	7.00	31.64
1981	20.89	12.80	8.09	33.88
1982	24.68	15.43	9.25	36.03
1983	24.82	16.74	8.09	32.54
1984	25.42	17.55	7.87	29.31
1985	26.25	19.12	7.13	27.17
1986	28.26	21.83	6.43	28.26

a. End-of-year estimates of external debt outstanding, including gross banking system liabilities.

b. World wholesale price index from IMF (1987, pp. 101-1) used as a proxy for the international inflation rate.

Sources: 1961-63: Jurado (1966, p. 373).

1964-69: Wellons (1977, p. 162); original estimates scaled up to adjust for incompleteness.

1970-86: Unpublished data provided by the Central Bank of the Philippines, Department of Economic Research (International) and Financial Plan Data Center.

subsequently extended the more comprehensive debt estimates to earlier years.

The Central Bank's Financial Plan Data Center has compiled the official data on external debt from 1983 onwards. The Central Bank's Department of Economic Research (International) has prepared comparable estimates for the years 1970 through 1982. The annual totals presented in Table A.1 include the monetary sector (that is, gross external liabilities of the Central Bank and commercial banks) as well as the non-monetary sector. The Central Bank estimates for the non-monetary sector are broken down into public and private sector debt, and into short versus medium and long-term debt. Estimates for the monetary sector for 1983-86 are classified into liabilities of the Central Bank, government commercial banks, and private commercial banks, again permitting a public/private breakdown. For the 1970-82 period, commercial bank liabilities are not subdivided into government and private banks; the public and private sector debt estimates reported in Table A.2 for these years are based on the assumption that government banks accounted for 20 percent of total commercial bank liabilities in those years.

The IMF (1984) and Alfiler (1986) give alternative estimates which accord fairly with the Central Bank data reported here.

Jurado (1966) has data on Philippine foreign loans from 1906 to 1963; only his 1961-1963 figures are included here. His estimates, taken from the Central Bank's Department of Economic Research, appear to be quite comprehensive. Data on both public and private sector debt are given, and from notes to the table it appears that the monetary sector debt is included. The 1961-1963 estimates reported in Table A.2 are thus taken directly from this source.

For the years 1964-69, the estimates in Table A.2 are derived from the data presented by Wellons (1977), which correspond to the estimates of external debt classified by institutional source reported by NEDA (1974, 1976, 1986). The source of these data is the Central Bank. On the basis of a 1975 interview, Wellons reports (p. 186), that the data for the 1960s are "incomplete". The data refer only to a "public sector" debt, although as Wellons (pp.163-164) notes, the categories of public and private debt overlap since: a) the government-owned Philippine National Bank was the "chief conduit for private external debt;" and b) the government's Development Bank of the Philippines "guaranteed substantial private foreign debt." The extent to which these are included in the Wellons/NEDA series is "unclear" (Wellons, p. 164); but Wellons (p.186) suggests that the inclusion of some publicly guaranteed private debt may help to account for the "astonishing" discrepancy between these figures and the (lower) estimates reported by the World Bank. The inclusion of some publicly guaranteed or on-lent private debt may also

explain why Wellons' estimates exceed Jurado's public sector debt figures for 1961-1963.

Owing to their incompleteness, the Wellons/NEDA estimates for the year 1964 to 1969 must be scaled up to make them comparable to the earlier and later estimates discussed above. The ratio of the Wellons estimate to Jurado's estimate for 1963 is 0.67; the ratio of the Wellons estimates to the Central Bank estimates for 1970-73 is 0.425. Accordingly, the Wellons estimates for the intervening years were scaled upwards on the assumption that they represent a proportion of total external debt which declined linearly between these points (that is, 0.635 in 1964, 0.60 in 1965, ..., 0.46 in 1969). The resulting estimates of total debt are divided into public and private debt in a similar fashion, interpolating the trend of their relative shares from the observation that the public share of total debt declined from 0.61 in 1963 to 0.48 in 1970.

The trends inferred here are consistent with other assessments NEDA (1976, pp. 400-401), in an alternative debt series (which includes private debt but is apparently less comprehensive with respect to public debt than the series cited here), also indicates that the public share of total external debt declined in the late 1960s. The World Bank (1976, p.472) reports that the share of public sector in total medium and long-term debt declined from 48 percent in 1964 to 29 percent in 1969. Both sources likewise show that the public share then rose in the early 1970s.

The debt estimates presented in Table A.2 for the years 1964-69 should then be regarded as rougher approximations than those for other years.

Aside from those in Table A.1, several other estimates of the Philippine external debt were made. Often used for international comparisons, the estimates reported in the World Bank's *World Debt Tables*, have been woefully understated; the 1984-85 edition, for example, reports total Philippine external debt in 1983 at US\$13.7 billion, comprised of US\$10.4 billion public or publicly guaranteed debt and US\$3.3 billion private debt. Power (1983, p.8) notes that the *World Debt Table* figures do not fully capture non-guaranteed private debt; in this case, they also appear to understate public debt.

The World Bank's (1984, p. 58) grey cover report on the Philippine external debt gives estimates for 1976-82 which are very close to those provided by the Central Bank. A subsequent World Bank report (1986, Vol. 3, p. 31) has estimates for 1974-85 which appear to be based on incomplete data; they are lower than those reported by the World Bank (1984) and by the Central Bank. For example, the 1982 estimate of US\$17.0 billion is less than the net as well as gross liability-based estimates (US\$19.1 billion and US\$24.3 billion, respectively) of the earlier Bank report.

The Organization for Economic Cooperation and Development (OECD 1985, 1987) has produced what may be the best sets of internationally comparable estimates of external debt for the years 1983 through 1986. These estimates are reasonably consistent with those presented above. Earlier data published by the OECD were much less complete (see David and Lee 1986, for a comparison of the old and new OECD series).

Appendix B: Other Estimates of Philippine Capital Flight

This appendix summarizes estimates of Philippine capital flight which have appeared elsewhere, and briefly compares them to the estimates derived in this study.

Most studies reported only cumulative totals for various time periods. These are presented in Table B.1. Cumby and Levich (1987) and Dooley (1986) provide annual data as reported in Table B.2.

Table B.1
ALTERNATIVE ESTIMATES OF CUMULATIVE PHILIPPINE CAPITAL
FLIGHT
(US\$ million)

Source	Period	Method	Estimated Capital Flight
Sachs	1979-1982	Inclusive residual	200
Erbe	1976-1982	Inclusive residual	0
Dooley	1975-1983	Non-reporting residual	8000
Morgan Guaranty	1976-1982	Non-bank residual	7000
Morgan Guaranty	1983-1985	Non-bank residual	2000
Khan and Ul Haque	1974-1982	Non-reporting residual	8400
Cumby and Levich	1976-1984	Inclusive residual	5040
Cumby and Levich	1976-1984	Non-bank residual	(3680)
Cumby and Levich	1976-1984	Hot money	3714
Cumby and Levich	1975-1984	Non-reporting residual	4500

Sources: Sachs (1984, Table 1, p. 397); Erbe (1985, Table 1, p. 271); Dooley (1986, Table E 39, p. 67); Morgan Guaranty (1986, Table 10, p. 13); Khan and Ul Haque (1987, Table 1, p. 4); Cumby and Levich (1987, Tables 3A.5 and 3B.4, pp. 60-61, 66-67).

Table B.2
ALTERNATIVE ESTIMATES OF ANNUAL PHILIPPINE CAPITAL FLIGHT
(US\$ million)

Year	Annual flow ^a (Cumby & Levich)			Cumulative stock ^b	
	A	B	C	Cumby & Levich	Dooley
1975				800	2500
1976	581	986	459	1500	4500
1977	1084	1161	127	2500	6900
1978	831	437	227	4300	8500
1980	1119	303	267	7000	9500
1981	1795	1824	1205	7700	9700
1982	908	701	734	8200	11700
1983	- 904	(- 833)	248	4300	8000
1984	- 1010	- 1132	- 196		

- a. Estimate A = inclusive variant of residual measure.
 Estimate B = non-bank variant of residual measure.
 Estimate C = hot money measure.
- b. Non-reporting variant of residual measure.

Sources: Cumby and Levich (1987, Tables 3A.5 and 3B.4 pp. 60-61, 66-67).
 Dooley (1986, Table E39, p. 67).

The estimates of Sachs (1984) and Erve (1985, both of which are derived by the inclusive variant of the residual method, are quite low; the primary reason appears to be understatement of the increases in the Philippine external debt from which residual estimates of capital flight are derived.

The Morgan Guaranty Trust Company (1986) estimates are somewhat higher than the corresponding estimates of the non-bank residual measure reported in Table 1. One source of discrepancy is the absence in the Morgan Guaranty estimates of a yen/dollar adjustment for currency valuation effects upon the external debt outstanding. Differences may also come from different debt estimates used by Morgan Guaranty and/or from a slightly different definition of banking system external assets.

The hot money estimates reported by Cumby and Levich (1987) are virtually identical to those reported in our Table for the corresponding years. The Cumby-Levich residual estimates differ from ours again primarily owing to the absence of a yen/dollar adjustment in their figures. The Cumby-Levich non-bank residual estimate, meanwhile, is off by

US\$639 million owing to an error in their recording of banking system foreign assets for the year 1983; this amount should be added to the figures in parentheses in the tables to obtain corrected estimates.

The estimates of the non-reporting variant of the residual measure reported by Dooley (1986) and Khan and Ul Haque (1987) are somewhat higher than ours, while the Cumby-Levich estimate of this measure is slightly lower. The discrepancies reflect differences in data and methodologies, as well as the absence in the other studies of the yen/dollar adjustment.

A significant feature of the annual data in Table B.2 is that they support the finding that, contrary to widespread perception, capital flight was low or negative in 1983-84. This point is discussed in the main text of our article.

None of the estimates summarized in this appendix include adjustments for misinvoicing of exports and imports, nor do they incorporate the inflation and interest adjustments reported in our financial capital flight estimates in Table 4.

REFERENCES

- Alano, B.P., Jr. "Import Smuggling in the Philippines: An Economic Analysis." *Journal of Philippine Development* 11 (1984): 157-190.
- Alfiler, F.R. "An Analysis of the Onset of the Philippine Debt Crisis." *Central Bank Review* 38 (1986): 22-24+.
- Bank for International Settlements. *Fifty-Fourth Annual Report*. Basle: BIS, 18 June 1984.
- Bello, W., P. Hayes, and L. Zarsky. "500 Mile Island: The Philippine Nuclear Reactor Deal." *Pacific Research* 10 (1979): 1-29.
- Bowles, S. and H. Gintis. "Contested Exchange: Political Economy and Modern Economic Theory." *American Economic Review* 78 (1988): 145-50.
- Butterfield, F. "Filipinos Say Marcos Was Given Millions for '76 Nuclear Contract." *The New York Times*, March 7, 1986.
- Carey, P. and K. Ellison. "How Smugglers Drain the Philippines." *San Jose Mercury News*, October 27, 1985.
- Cowitt, P.P. *World Currency Yearbook*. Brooklyn, N.Y.: International Currency Analysis, Inc., 1985
- Cuddington, J.T. *Capital Flight: Estimates, Issues, and Explanations*. Princeton: Princeton University, Department of Economics, Princeton Studies in International Finance No. 58, December 1986.
- _____. "Macroeconomic Determinants of Capital Flight: An Econometric Investigation". In Lessard and Williamson, eds. pp. 85-100, 1987.
- Cumby, R. and R. Levich "On the Definition and Magnitude of Recent Capital Flight." In Lessard and Williamson, eds. pp. 27-67, 1987.
- David, I.P. and J. Lee "External Debt Situation in Asian Developing Countries." Manila: Asian Development Bank Economics Office, Statistical Report Series No. 6, March 1986.
- De Dios, E.S., et al. *An Analysis of the Philippine Economic Crisis: A Workshop Report*. Quezon City: University of the Philippines Press, 1984
- Deppler, M. and M. Williamson "Capital Flight: Concepts, Measurement, and Issues." In *IMF Staff Studies for the World Economic Outlook*, pp. 39-58, August 1987.
- Diaz-Alejandro, C. "Latin American Debt: I Don't Think We Are In Kansas Anymore." *Brookings Papers on Economic Activity* 2 (1984) pp. 335-389.
- Dooley, M.P. "Country-Specific Risk Premiums, Capital Flight and Net Investment Income Payments in Selected Developing Countries." International Monetary Fund Research Department Memorandum DM/86/17, March 11, 1986.
- Dornbusch, R. "External Debt, Budget Deficits and Disequilibrium Exchange Rates." In Smith and Cuddington, eds., pp. 213-235, 1985.
- Dumaine, B. "The \$2.2 Billion Nuclear Fiasco." In *Fortune*, pp. 38-46, September 1, 1986.
- Ellison, K. and P. Carey. "Military Aid and Manila: Pentagon Probes U.S. Contractors for Links to Top Philippine Officials." *San Jose Mercury News*, June 28, 1985.

- Erbe, S. "The Flight of Capital from Developing Countries." *Intereconomics* 20 (November/December 1985): 268-275.
- Gulati, S.K. "A Note on Trade Misinvoicing." In Lessard and Williamson, eds., pp. 68-78, 1987
- International Monetary Fund (IMF). *Balance of Payments Manual*. Fourth Edition. Washington: IMF, 1977.
- _____. *Philippines: Recent Economic Developments*. June 8, 1984.
- _____. *International Financial Statistics Yearbook 1987*. Washington: IMF, 1987.
- _____. *Report on the World Current Account Discrepancy*. Final Report of the Working Party on the Statistical Discrepancy in World Current Account Balance, September 1987 b.
- Jurado, G.M. "Philippine Foreign Loans: 1906-1963." *Philippine Economic Journal* 5 (1966): 362-376.
- Khan, M.S. and N. Ul Haque. "Capital Flight from Developing Countries." *Finance and Development* 24 (March 1987): 2-5.
- Kwitny, J. *The Crimes of Patriots: A True Tale of Dope, Dirty Money, and the CIA*. New York: Norton, 1987.
- Lessard, D.R. and J. Williamson, eds. *Capital Flight and Third World Debt*. Washington, DC: Institute for International Economics, 1987.
- Lessard, D.R. and J. Williamson. "The Problem and Policy Responses." In Lessard and Williamson, eds., pp. 201-254, 1987.
- Malone, W.S. "Ferdinand E. Marcos: A Trail of Corruption." Investigative report for the Public Broadcasting System/WBGH Television, Boston, Massachusetts, 1987.
- Morgan Guaranty Trust Company of New York. "LDC Capital Flight." In *World Financial Markets*, pp. 13-15, March 1986.
- National Economic and Development Authority (NEDA). *Statistical Yearbook 1974*. Manila.
- _____. *Statistical Yearbook of the Philippines 1976*. Manila
- _____. *1986 Philippine Statistical Yearbook*. Manila
- Organisation for Economic Cooperation and Development (OECD). *Statistics on External Indebtedness: The Debt and Other External Liabilities of Developing, CMEA and Certain Other Countries and Territories at End-December 1983 and End-December 1984*. Paris: OECD, 1985.
- _____. *External Debt Statistics: The Debt and Other External Liabilities of Developing, CMEA and Certain Other Countries and Territories at End-December 1985 and End-December 1986*. Paris: OECD, 1987.
- Pasztor, A. "Inquiry Into Payments by Westinghouse to Marcos Aide Expected to be Dropped." *The Wall Street Journal*, 15 December 1987.
- Patrick, H. and H.A. Moreno "Philippine Private Domestic Commercial Banking, 1946-80, in the Light of Japanese Experience." In K. Ohkawa and G. Ranis, eds. *Japan and the Developing Countries*, pp. 311-365. Oxford: Basil Blackwell, 1985.
- Péagam, N. "The Spectre that Haunts Marcos." In *Euromoney*, pp. 46-63, April 1984.
- Pick, F. *Pick's Currency Yearbook 1968*. New York: Pick Publishing, 1968.

- Power, J.H. "Response to Balance of Payments Crises in the 1970s: Korea and the Philippines." *PIDS Staff Paper Series* No. 83-05. Makati: Philippine Institute for Development Studies, 1983.
- Rafferty, K. "Thrills in Manila." In *Institutional Investor*, pp. 98-104, December 1983.
- Sachs, J.D. "Comments" [on Diaz-Alejandro's "Latin American Debt"]. *Brookings Papers on Economic Activity* 2 (1984): 393-401.
- Shaplen, R. "The Philippines — Part II." *The New Yorker*, September 1, 1986.
- Smith, G.W. and J.T. Cuddington, eds., *International Debt and the Developing Countries*. Washington D.C.: The World Bank, 1985.
- Thompson, M. and G.W. Slayton. "An Essay on Credit Arrangements Between the IMF and the Republic of the Philippines: 1970-1983." *Philippine Review of Economics and Business* 22 (1985): 59-80.
- Walter, I. "The Mechanisms of Capital Flight." In Lessard and Williamson, eds., pp. 103-128, 1987.
- Wellons, P.A. *Borrowing by Developing Countries on the Euro-currency Market*. Paris: OECD Developing Centre, 1977
- WGBH Educational Foundation. "In Search of the Marcos Millions." Transcript of *Frontline* No. 511, broadcast by the Public Broadcasting System on May 26, 1987. Available from: WGBH Transcripts, 125 Western Avenue, Boston, MA 02134, U.S.A.
- World Bank. *The Philippines: Priorities and Prospects for Development*. Washington D.C.: World Bank, 1976.
- _____. *The Philippines: A Review of External Debt*. Report No. 4912-PH, November 2, 1984.
- _____. *World Debt Tables: External Debt of Developing Countries*. 1984-1985 Edition, Washington: World Bank, 1985.
- _____. *The Philippines: A Framework for Economic Recovery*. Report No. 6350-PH, November 5, 1986.
- Zedillo, E. "Mexico" In Lessard and Williamson, eds., pp. 178-185, 1987.