Berichte

Some Remarks on the Definition and Magnitude of Recent Capital Flight from Developing Countries*

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I. Introduction

It is indeed a paradox that while the external debt of developing countries reached peak levels in the late 1970's and early 1980's massive capital flowed out of these countries as private residents in debtor nations were building up foreign assets. Financial flows moved from capital poor to capital rich nations and from debtor nations to creditor nations. These bizarre financial flows are a threat to world financial stability. The 1982 debt crisis is a symptom of basic maladjustments in developing countries, the world economic situation, and international bank lending policies. Capital flight is both a cause and consequence of this unfavourable environment. It has far reaching implications on debt servicing and repayment. Estimates published by various agencies and economists highlight the exacerbation of third world debt as a consequence of capital flight. An estimate by the Morgan Guaranty Trust Company (Table 1) for selected countries for the year end 1985 illustrates the extent to which new debt simply financed capital flight i.e. private residents who, fearing political instability and inflation, had acquired foreign exchange and transferred it out of the country.

A perusal of Table 1 shows that some countries like Venezuela and Argentina would be almost debt free had they succeeded in stemming gross outflows of capital. The purely financial impact of these lost revenues is tremendous. Since a major share of external debt contracted is public or publicly guaranteed debt and debtor and creditors within a national boundary are not identical, earnings on foreign claims are not available to meet commitments on external debt.

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* See *Benu Varman:* Capital Flight – A Critique of Concepts and Measures – Including a Case Study of India and the Philippines (Verlag Weltarchiv, Hamburg, October 1989).

Table 1

How Capital Flight Has Exacerbated Third World Debt

Nation	Gross external debt* Billions of dollars	
	Actual	If there had been no capital flight
Argentina	$ 50	$ 1
Brazil	106	92
Mexico	97	12
Venezuela	31	0
Malaysia	20	4
Nigeria	19	7
Philippines	27	15

* Yearend 1985
Data: Morgan Guaranty Trust Co. Estimates

The purpose of this paper is to survey and analyse the various definitions and measures of capital flight that have been offered in recent literature. The problem, at the conceptual level, is to classify particular domestic capital outflows as capital flight. This paper goes into this question and also into the problem of distinction between "normal" flows and capital flight. In view of some of the limitations of existing definitions discussed in this paper an alternative explanation is offered. These are dealt with in section II and section III. Section IV shows how the definitions discussed in the previous two sections can be operationalized. Section V presents a summary presentation of recent estimates of the magnitude of capital flight from selected countries.

II. The Definition of Capital Flight

There is no generally accepted definition of capital flight. Economic theory does not guide us to a clear definition of the term. Portfolio theory does provide a clear concept of "normal" flows. In an open economy residents engage in international transactions. They diversify the composition of their portfolios driven by risk/return objectives. Risk diversification need not be confined to domestic securities. The existence of a relatively high degree of positive correlation and returns on assets within an economy suggests the possibility that risk reduction might be facilitated by diversifying portfolios internationally. International financial transactions, therefore may sometimes lead domestic residents to acquire financial claims

against non-residents. It is possible that gross capital outflows may exceed net inflows. This need not necessarily be capital flight. It could indicate a high degree of integration with world capital markets resulting in diversification of some previously undiversible risk. Inverse capital flows may also be due to maturity transformation at the international level when long term inflows may be offset by short term capital outflows. The problem at hand is:

a) Is the definition of capital flight universally applicable?

b) Are flight motivated capital outflows to be classified under "normal" flows or "illegal" transactions?

Defining the concept raises these and other fundamental issues dealt with in the following sections.

1. *Is the Concept of Capital Flight Universally Applicable?*

As a starting point it would be useful to examine the question whether capital flight denotes a different connotation with reference to the degree of development of the country from which it occurs. A survey of existing literature on the subject reveals that the issue has never been discussed explicitly. Different concepts have been used depending on the country examined or the research question under investigation. The common feature in all studies is the acceptance that capital flight is a response to an unstable and uncertain political and/or economic environment. *Kindleberger*'s (1937, p. 158) definition of capital flight as "abnormal flows propelled from a country ... by ... any one or more of a complex list of fears and suspicions" sums up the point. Instability and uncertainty could arise due to domestic macroeconomic policies, deterioration in the external climate and/or exogenous political shocks. It is motivated by a desire to avoid the domestic financial market. This is believed to have destabilising consequences on the balance of payments and exchange rates, the debt repayment issue and the overall macroeconomic performance of the economy.

The issue of the applicability of a general definition to suit all countries can be better understood by referring to two recent publications, *Brown* (1987) and *Glyn* (1986). The first is a contemporary history of capital flight in developed countries. The second study is an analysis of recent capital flight from the United Kingdom. In Brown's historical analysis capital flight occurs when foreign creditors pull out their capital from a country whenever there was danger of political and economic tranquility being disturbed which would result in the imposition of exchange controls. "Several

episodes of capital flight are considered in this book. In almost all of them, foreign investors and creditors have played a disproportionately large role. Foreign capital is tied down by 'convenience factors'. Domestic residents in general have less to lose than foreigners from the introduction of exchange restrictions. Whereas foreigners might not be able to buy anything with frozen balances (except, perhaps, tourist services), residents would be able to use their funds freely on a normal range of goods, even if curtailed possibly by import controls." (p. 12)

Glyn's analysis implicitly assumes the same definition. "The classic flight of capital involves a move out of both Sterling and UK and can affect either side of the UK's external balance sheet.

For example: 1. running down of UK liabilities overseas (an American owner of a UK government bond decides to sell the bond and switch the proceeds to the sale into dollars for investment outside the UK); 2. an increase in some item of UK assets overseas (a British owner of a government bond does precisely the same thing". (p. 39 - 40)

The emphasis in this article like *Brown*'s study is on the pulling out of capital by the foreign investor, although the domestic investor may also do so, in anticipation of the imposition of exchange controls. The conclusions that can be drawn from both these studies is that the issue of capital flight is mainly concerned with the behaviour of the foreign investor.

The recent debate on capital flight from the heavily indebted Latin American and other developing countries does not centre around the pulling out of capital by the foreign investor but the domestic private investor. The crux of the issue is to explain two way capital movements in capital scarce economies. Since developing countries are characterised by capital scarcity they should be net borrowers in the development process.[1] Recent evidence shows that, often residents in these economies choose to invest their savings abroad at the same time as these economies are seeking external finance.[2] What we now have is a case of public external borrowing and private foreign borrowing flowing in and private capital flowing out, as domestic investors make massive switches from domestic financial assets to foreign assets.

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[1] This has been formalised in a number of studies showing that countries can attain a desirable growth path through supplementing domestic savings by external borrowing and do not have to rely solely on domestic resources. See, for example, the survey article by *McDonald* (1982) and the papers by *Bardhan* (1967), *Hamada* (1969), and *Blanchard* (1983).

[2] This phenomenon was first observed by *Diaz-Alejandro* (1984) and *Dooley* et al. (1983).

Cumby and *Levich* (June 1987) surveyed the various definitions of capital flight. Their survey, however, does not include the definition provided by *Brown*'s and *Glyn*'s study. They therefore, do not differentiate the concept of capital flight with respect to the class of country defined according to its stage and degree of economic development. This classification is important for analyzing the cause-effect relationship related to capital flight and the choice of subsequent policy measures. It is as crucial as recognising the special features of LDC's and accepting that policy prescriptions suited to a developed country does not always result in the same chain of events when applied to developing countries. Similar might be the case with respect to capital flight. In the developed country case it is the foreign investor who plays a disproportionately larger role in the capital flight transaction. In the developing country case, as has been observed in recent years, the foreign investor is the supplier of capital. It is the domestic investor who is involved in capital flight trade. Policies to stem and eradicate the problem would require different set of measures to be taken to encourage foreign investors to retain their capital in the country in one context and the domestic investors to retain capital in their own in the other. The paper continues with other aspects of the capital flight issue in the context of a developing country case.

2. *Is Capital Flight only an Illegal Transaction?*

The term capital flight does evoke negative connotations and is interpreted by many as an illegal transaction. Illegal transactions can occur, inter alia, by the systematic under- and overinvoicing of exports and/of imports and can be detected through the use of comparing partner country trade statistics as introduced by *Bhagwati* (1964). This technique was further used by Bhagwati, *Krueger, Wibulswadia* (1974). The conclusion reached by the study using 1966 trade data was that underinvoicing of exports seemed to be used as a mechanism for capital flight while overinvoicing of imports was much less prevelant. These authors regard the occurence of capital flight through the faking of trade documents as an important impact of exchange controls in LDC's. Evidently the concept of capital flight here is confined to the role of the domestic private investor who transfers illegally earned foreign exchange abroad. The purpose of the transfer is assumed naturally to be a desire to avoid the domestic financial market. A drawback is that such transfers may include earnings from smuggling, criminal activities, tax evasion etc. or may simply result due to a desire to evade tariffs and quotas. None of these can be statistically measured and would therefore be included in any measure of capital flight as an illegal transaction.

Another aspect under examination is whether confining the concept to illegal transactions covers all dimensions of the phenomenon. The discussion on the concept of capital flight in section III suggests that legal export of capital could also reflect the flight of capital from developing countries. This is keeping in view the 1980's debt crisis when foreign borrowing could not be set against the aquisition of foreign assets by residents since borrowers and lenders were not identical. Thus, the banks involved could not offset their claims against deposits from a particular country. Capital flight, then, cannot be regarded only as export of foreign exchange in contravention of domestic regulations, some perfectly legal export of capital may also have serious implications for the country concerned. It would be more meaningful to regard capital flowing out through the faking of import and export invoice i.e. illegal transactions, as a subset of the total flight magnitude. This is based on the general expectation that exporters will underinvoice exports and importers will overinvoice imports to gain foreign exchange which is kept outside the control of the central bank and exchange authority. It is for this reason that capital lost through this mechanism should be added to the magnitude of capital flight arrived at by other methods. *Gulati* (1985), however, found that many developing countries were underinvoicers of exports and at the same time overinvoicers of imports, the latter phenomenon presumably being due to the stronger weight of the opposing incentives caused by tariffs, quotas, and other trade restrictions. Gulati (1986) in an analysis of eight debtor countries shows that underinvoicing of imports outweighs the underinvoicing of exports in most of the sample, current account deficits are in general being underestimated. Thus the magnitude of capital flight estimated by the techniques discussed in section IV overestimates total amount of capital flight. The corrected estimates are presented in section V.

III. The Concept (contd.)

1. The National Utility Concept of Capital Flight

The most widely used definition of the term links the loss of capital through domestic capital outflows to a lowering of national utility. It includes all reported and unreported increase in foreign assets of the public and private sector in the measure of capital flight. This gives us an expansive definition of capital flight. *Duwendag* (1986), *Dooley* et al. (1983), *Erbe* (1985) and the *World Bank* (1985) estimate capital flight in terms of this broad definition. The actual estimating method has undergone refinements by providing a narrower concept of capital flight. These are *Cline* (1986),

Cuddington (1986) and the *Morgan Guaranty Trust Company* (1986). In the definitions discussed in this section the capital flight figure arrived at is a residual. Both expansive and narrow concepts are based on a very restrictive assumption, i.e. all domestic outflows of capital when domestically invested would yield a higher rate of social return. Interlinked with this is the premise that if the capital lost were available it would enhance domestic investible resources and therefore no leakages into domestic conspicuous consumption of foreign goods would take place. Cuddington (1986) discusses some cases to illustrate why capital flight could possibly represent disutility and thereby lower domestic social welfare, even though it increases the private welfare of both domestic and foreign residents who participate in the transaction. These are:

a) The destabilizing impact of capital outflows on domestic financial markets, e.g. exchange rates, interest rates and the efficacy of monetary policy.

b) Capital flight might reflect private evaluation of domestic returns on domestic investments lower than actual social returns on such investments.

c) Lost capital may never be recovered and may therefore lower domestic investment and erode the domestic tax base.

d) Capital flight drives up marginal costs of foreign borrowing.

e) Capital flight erodes the legitimacy of mixed economic systems.

Cuddington rightly points out that each of these cases listed may be a result of macroeconomic maladjustments in the system rather than due to capital flight which itself may be a response to these created disincentives.

Linking capital flight to some notion of national utility or welfare is beset with problems. Economic principles do guide us to a concept of welfare. In a free market economy utility maximizing consumer and profit maximizing producer behaviour together with efficiencies in distribution lead to maximum national welfare. Yet, private maximization of utility in this concept of capital flight leads to the creation of disutilities thereby resulting in a decline in national welfare. This is in contradiction to accepted economic principles and as this paper reveals makes the definition of capital flight in terms of national utility difficult and debatable.

The second difficulty is in connection with the measurability of social return. It is difficult to prove that the social return of domestic investments would be higher than private returns. Social return is a highly subjective term. Even if we were for a moment to assume that social return on capital

lost was higher, we would be treading on thin ice. The subjective characteristic of the term makes evaluation of social return on commercial credits and normal portfolio diversification flows a highly difficult task. At face value it is difficult to assume that export credit of firms abroad and "normal" portfolio adjustment flows would yield a higher return domestically.

Lastly, a nationalist measure of social utility connected with flight capital fails to even start questioning the basic distinction between "Strategic Diversification" and "Capital Flight".

2. *Capital Flight Defined as the Violation of a Social Contract*

It is natural to assume unethical behaviour on the part of the domestic private investor when we use the term "Capital Flight" even though economic principles guide us to the conclusion that the deployment of assets is perfectly rational in an uncertain environment. The negative meaning of the term arises due to the belief that it has adverse consequences on the country of capital flight. This adverse result cannot be perceived by individual assetholders. *Walter* (1986) regards capital flight as an occurence that signifies a conflict between the objective function of the government and the objective function of asset holders. Capital flight is asset deployment due to "an unfavourable change in the risk/return profile associated with a portfolio of assets held in a particular country, as compared with a portfolio held in other national jurisdictions" (p. 2). Thus, capital flight is a subset of international portfolio adjustment. It threatens the attainment of national objectives. It may or may not violate the law. It is always considered by the authorities to violate a social contract. Thus, in Walter's opinion confidentiality may play a significant role in capital flight transfers. Defining the concept in terms of violation of a social contract, though arbitrary in its distinction between normal portfolio adjustment and capital flight, does succeed in providing some kind of conceptual demarcation line. The next section attempts to bring further clarity to the issue.

3. *A Causal Approach to the Definition of Capital Flight*

The traditional definition of capital flight entails a one-way net flow caused by political and economic uncertainty, resulting in the achievement of a real transfer.[3] Among the many factors leading to this instability are: fiscal deficit,[4] inflation, default on government obligations, devaluation,

[3] See *Kindleberger* (1937) and *Kindleberger* (1978(a)).

financial repression, political instability and threat of expropriation. The destabilising effects of capital flight are then easy to see on account of the occurence of a real transfer. The recent debt crisis has revived interest in the phenomenon of capital flight. The salient point of departure from the old debate is the fact that most Latin American countries and some other developing countries have actually experienced simultaneous two-way flows – foreign borrowing flowing in and private capital flowing out. The traditional definition cannot explain these two way flows. A suitable definition of capital flight should then be able to explain, theoretically at least, two-way flows of capital in an unstable, uncertain environment on the one hand, and distinguish between "normal" and flight induced outflows of capital on the other. An analysis on both these counts is necessary for an understanding of the causes and consequences of capital flight, and the formation of a suitable policy framework in which to deal with the problem. The classification in the previous section between normal portfolio flows and capital flight requires further refinement which is sought here. "Normal" portfolio way flows are a response to expected changes in real income, interest, exchange rates and changes in the level of wealth.

Movements of capital can occur in response to changes in risks and returns, influenced by other factors unexplained by portfolio theory. It is this part of private capital outflows that is here being termed "Capital Flight". "Capital flight therefore appears to consist of a subset of international asset redeployments or portfolio adjustments – undertaken in response to a significant perceived deterioration in risk/return profiles associated with assets located in a particular country – that occur in the presence of conflict between the objectives of asset holders and governments." (*Walter* p. 4, 1986) Capital flight is one side of a two-way flow induced by asymmetric information available to economic agents, and/or asymmetric economic and political risk. The macroeconomic policies of a country and its regulatory pólicies may cause the returns to the domestic private investor to diverge from the returns to the foreign investor. Such policies may also drive a wedge between the returns to the domestic private investor and the returns to the economy as a whole. These result in two-way flows which occur to arbitrage a yield or risk differential. Although asymmetries can arise as a result of overall economic and political policy, they can also arise because of a deliberate government action, such as providing guarantees to foreign capital, taxing the two groups of investors differently, or offering tax reliefs to foreign investors. Asymmetries could also arise because of the differences

[4] See *Dornbusch* (1984) for the relationship between the current account, budget deficits, savings, investment and capital flight.

in the ability of domestic and foreign investors to bear risk. It is generally assumed that foreign investors hold an internationally diversified portfolio while the portfolios of domestic investors are mainly composed of domestic assets. In the event of an increased risk to the domestic economy the foreign investor is in a better position to hold the risky domestic asset in his portfolio. But, the more likely case is that differences in the ability to bear risk may be created by the government to attract foreign capital rather than the actual abilities mentioned above. In the event of a financial crisis it is often the case that foreign investors run less risk of their asset loosing value than the domestic investor when they are allowed to hold assets denominated in foreign exchange, and also when interest rate ceilings apply only to residents. Asymmetries could also arise because of the differential impact of political risk on the two groups of investors or because of different information signals to both the groups. These asymmetries are discussed below in more detail.[5]

Asymmetric information: Inverse capital movements can be partly explained by the differences in anticipations and expectations of changes in the economic and political climate due to asymmetry in information available to foreign and domestic investors. *Harberger* (1985) gives a detailed analytical description of the debt crisis. This analytical evidence of facts reveals that domestic investors predicted a crisis well before the bankers. Asymmetry in the availability of information has laid the blame on the international banking community for irrational banking behaviour since the scale and period of capital flight should have led the banks to revise the lending operations much earlier.

Asymmetric risk: Capital flight can be explained by differences in risks perceived by residents and non-residents in holding claims on residents of the countries studied. It is quite possible that the two groups face different sets of incentives under the same circumstances. Another possibility is the existence of institutional arrangements which provide incentives to encourage the inflow of foreign capital while the same set of incentives may not be available to domestic residents. The existence of each or both of these cases would give rise to an asymmetric risk structure that triggers capital flight at the same time that capital is flowing in order to arbitrage a differential risk structure. Examples of these differentials are not difficult to find. One such

[5] *Dooley* (1986), *Khan* and *Ul Haque* (1985), *Eaton* (1987), and *Diwan* (1987), point to the discriminatory treatment of resident capital in the form of differential taxation, financial repression, different currency of denomination, or investment guarantees and their subordination to non-resident claims in the event of financial crisis, and thus explain resident outflows that coincide with non-resident inflows.

case is the difference in taxes and their incidence between domestic and foreign investors, but similar cases also occur with respect to country risk, provision of guarantees, interest ceilings, access to foreign exchange denominated assets etc. This unequal risk gives rise to discriminatory treatment of resident capital. In an empirical study *Dooley* (1986) outlines attempts by asset holders to arbitrage a yield differential that is generated by the inflation tax on residents. Non-residents may have the possibility to evade taxes by purchasing foreign currency claims on residents. They may also have access to explicit or implicit government guarantees not available to residents. Since non-residents can avoid taxes in ways not available to residents capital flight is the expected outcome of this incentive structure.

Political risk: This is an essential element that determines the degree of substitution between domestic and foreign assets. In recent years the impact of political risk on asset substitution in an open economy has received increasing attention.[6]

The asymmetric impact of political risk on domestic and foreign investors has been studied by *Khan* and *Ul Haque* (1985), *Diwan* (1986), and *Ortiz* (1987). Political risk could be associated with expropriation risks, credibility of government policy decisions,[7] default risk, imposition of exchange controls and dramatic changes in political and economic regimes. One such factor or a combination of them increases transaction costs on domestic investment leading to smart capital leaving the country. An example would illustrate the point. In the event of a fiscal crisis domestic wealth holders are concerned with potential losses in their own national bonds as it is easier for the government to default on domestic debt rather than foreign debt. Domestic investors move their capital out as a means of safeguarding their own net wealth positions. The foreign investor may not be affected by this default because it may apply to only domestic holders of the national bond.

To summarize, capital flight is here defined as a response to discriminatiory treatment of domestic capital. It is usually one side of two-way flows. The other side is foreign capital inflows. The paradox can be explained by asymmetric information and economic and political risk.

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[6] Initial work was done by *Aliber* (1973). Further work has been done by *Dooley* and *Isard* (1980), *Eaton* and *Turnovsky* (1983), *Ize* and *Ortiz* (1983), and *Ize* (1985).

[7] *Van Wijnbergen* (1986) models the value of credibility of government decisions as determining capital flight.

IV. Methods of Estimating Capital Flight

Attempts to measure the magnitude of capital flight can at best only serve as an indicator to the actual figure. This is due to the problems associated with identifying the phenomenon. Capital can flee through channels which, one can safely assume, will not be reported to the balance of payments statistics compiling authorities.[8] Estimates of the scale of capital flight also vary with the type of definition employed. Two conceptually different estimating procedures have been developed in recent years.

The first procedure is based on the definition of capital flight outlined in Section III. 1. The second estimating technique is the operation of the definition discussed in Section III. 3. Initial work on the operation of both these approaches was done by (*Dooley* et al. (1983)) and (Dooley (1986)).

1. Method I

This method of estimating capital flight is based on the balance of payments statistics. These statistics reveal a very interesting feature in the 80's. The stock of external debt available from sources like the OECD is higher than the external debt data flows cumulated from the balance of payments statistics. This difference has largely been interpreted as capital flight. The measuring procedure consists in comparing officially recorded changes in gross foreign indebtedness with the net figures for all credit related positions in the balance of payments statistics. The difference between the two aggregates allows conclusions to be drawn as to the scale of capital flight. The calculation is based on the assumption that the current account deficit and the changes in foreign exchange reserves give rise to a certain financing requirement, which would have to be reflected in the change in gross foreign indebtedness (the redemption of previous loans has already been carried out here). If the change in gross foreign indebtedness exceeds the current account deficits and the increase in foreign exchange reserves it can be assumed that foreign exchange reserves were tapped for some other reason, namely for the private export of capital. Capital flight is thus defined as a residual. *Dooley* et al. (1983) referred to this residual as "gross capital outflows". The methodology has since then been used by *Erbe* (1985) and the *World Bank* (1985). *Cline* (1986), *Duwendag* (1986) and The *Morgan Guaranty Trust Co.* (1986) employ the technique with some modifications.

Cuddington (1986) employs another technique to estimate the loss of capital to a country through capital flight. In his view the term "capital flight"

[8] See *Walter* (1986) for the desire and motivation for secrecy.

refers to short-term speculative capital outflows. This is because these "hot money" flows respond to political or financial crisis, heavier taxes, a prospective tightening of exchange controls, major devaluations of domestic currency or actual or incipient hyper-inflation. For countries with capital controls, the errors and omissions item is added to short term capital outflows because such outflows of capital must be concealed. They reflect capital flight net of unrecorded capital inflows. This measure also treats capital flight as a residual but gives us only a narrow measure of capital flight.

The operation of the expansive and narrow approaches can be clearly understood with the aid of a stylised presentation of the balance of payments accounts.

Table II

Method I: Notations

Current Account Surplus	A
Net Foreign Direct Investment	B
Private Short Term Capital	C
Portfolio Investment: Bonds + Equities	D
Banking System Foreign Assets	E
Change in Reserves	F
Errors and Omissions	G
Change in Debt	H
IMF Credit	I
Travel (Credit)	J
Reinvested FDI Income	K
Other Investment Income	L
Counterpart items	M
Capital Flight	CF

a) *Erbe* and *The World Bank:*

$$CF = H + B + A + F$$

b) *Morgan Guaranty Trust Co.:*

$$CF = H + B + A + E + F$$

c) *Cline:*

$$CF = H + B + A + E + F - (J + K + L)$$

d) *Duwendag:*

$$CF = H + B + I + A + G + F + M$$

e) *Cuddington:*

$$CF = (-G - C)$$

$$CF = (-G - C - D)$$

Note: The sign convention used in the balance of payments accounts is used here also.

a) *Erbe* (1985) and the *World Bank* (1985) employ the broadest definition of capital flight. Inflows of capital consist of increases in external debt and foreign direct investment. Net foreign claims are arrived at by subtracting from these inflows the current account deficit and the increase in official reserves. The residual, thus arrived at, includes the assets of both the banking and the non-banking sector in the estimate of capital flight.

b) *Morgan Guaranty Trust Co.* (1986) modifies the same technique. The acquisition of foreign assets by the banks is not regarded as capital flight. The reasons for this exclusion have not been explained. Therefore, the increase in the short term foreign assets of the banking system are deducted from total capital inflows.

c) *Cline* (1986) makes further adjustments to the capital flight calculations. Travel, reinvested FDI income and other investment income are excluded from the estimate of capital flight. This is based on the reasoning that income from tourism and reinvested income is outside the control of the foreign exchange authorities. Cline's attention is on the determination of the marginal propensity of capital to leave the country. For the same reason non-repatriated private interest earnings abroad are excluded as they have little to do with how new capital is used.

d) *Duwendag* (1986) separates errors and omissions and counterpart items entry from the estimate of capital flight because of the difficulty in interpreting them. He interprets them seperately since treating them as a residual in capital assets abroad may produce a bias. IMF internal data are employed because of their reliability. Since in the International Financial Statistics and Balance of Payments Year Book the credit transactions of the developing countries with the IMF are carried out in a way that the IMF credit reduces the currency reserves (= increase in liabilities to the IMF) and the credit repayments to the IMF, a change in reserves is taken from IFS and BOP statistics and then IMF credit is subtracted from it to get change in official reserves.

e) *Cuddington* (1986) focuses on short term capital flows, which he believes to be the typical meaning of capital flight. The acquisition of short term external assets by the non-bank sector is added to the errors and omissions. Item 'D' (see Table II) is chosen individually for each country case he considers.

2. *Method II*

Dooley (1986) suggests that capital flight can be explained by differences in risk perceived by residents and nonresidents in holding claims on residents of the country studied. Empirical tests show that yields implied by recorded income receipts on external claims have fallen well below levels consistent with market interest rates. The relatively low yield on claims is interpreted as reflecting capital flight. On the other side, rates of return implied by recorded payments on external debt have exceeded levels consistent with market interest rates by a substantial amount. This reflects country risk premiums. Capital flight may be interpreted as reflecting the differences in perceptions by residents and nonresidents, and it may be related to the level of confidence that either group of investors places in such holdings.

Dooley (1986) and *Khan / Ul Haque* (1987) define capital flight as those external claims that do not generate investment income receipts recorded in the balance of payments accounts of the country.

Dooley (1986) arrives at the stock of external claims by cumulating identified capital flows in the balance of payments accounts and adjusting them by adding errors and ommissions to them. To this is added the discrepancy, if any, between the World Bank data on the stock of external debt and external borrowing reported in the balance of payments accounts. He assumes that a discrepancy between the two sources of data are underestimated belancing transactions and represent the acquisition of foreign assets by the private sector. The next step is to compute a market interest rate for each country's assets and calculate the stock of assets that would give rise to the level of invested income reported in the balance of payments accounts at this market interest rate. The difference between the thus arrived at measure and the actual reported measure of external assets in the balance of payments statistics is his measure of capital flight. This technique is summarized in Table III.

Table III

Method II: Notations

Cumulated Stock of External Claims	A
Cumulated Stock of Errors and Omissions	B
Aggregate Cumulative Capital Outflow (A + B)	C
Unrecorded Stock of External Claims	D
D = OECD External Debt Data – Balance of Payment External Debt Data	
Total Cumulated Claims (C + D)	E
Recorded Investment Income Receipts	F
Market Yield On External Debt	G

Estimation of capital flight:

a) Calculate the stock of external claims implied by investment income receipts and market yield.* These reflect normal portfolio investment.

b) The difference between total cumulated claims (E) in the balance of payments accounts and (a) above is the measure of capital flight.

* Market yield is equal to the prime risk yield on external liabilities to private creditors.[9]

[9] For the formula for calculating market yield refer to Appendix B, p. 32, *Dooley* (1986).

3. *Evaluation of Estimating Methods*

Two entirely different concepts of capital flight are evident. At this stage it is necessary to critically evaluate both the techniques.

Method I: The method for estimating the magnitude of capital flight suggests that when residents acquire financial claims outside their home country that domestic real investment is constrained. *Cumby* and *Levich* (June 1987) review historical data sets for a selected group of countries. The constraint on domestic real investment seems to be hardly the case since the countries studied before 1983 received historically large net inflows of real foreign savings.

The inclusion of normal capital flows in the estimate of capital flight gives a very broad measure of the phenomenon. The logic of implicitly assuming that the investor in the developing country is barred from diversifying the risks to his portfolio of assets internationally is not clear. It is difficult to see how risk diversification per se can reduce national welfare. Similarly, decrease in national welfare because of export credits is difficult to accept. These are a part of normal economic activity and their inclusion in the capital flight measure is bound to give a misleading picture of the actual magnitude.

There are a couple of problems associated with measuring capital flight with *Cuddington*'s narrow method too. As *Duwendag* (1986) has pointed out, the errors and omissions do not consist only of unreported short term capital assets. The argument for employing only short term flows is not very sound since an investor reacting to a capital flight climate at home may acquire, in addition to short term bonds, long term bonds, stocks and real assets. Beside real assets, other investments can return or leave just as quickly as short term funds in today's well developed international financial markets with very little loss of liquidity.

Thus, while measuring capital flight, it would be useful to include both short term and long term capital flows. Also, *Cuddington*'s estimate does not distinguish between private capital flows that are offset by official borrowing and those that are not. Therefore, it does not address offshore intermediation dealt by *Dooley*.

An additional problem with Method I is that the gross increase in external assets, short term or long term, as a measure of capital flight will give misleading results. This is because such flows can occur for countries not experiencing capital flight too and identifying these flows as capital flight can be misleading.

The alternative method developed by *Dooley* (1986) and further used to advantage by *Khan* and *Ul Haque* (1987) identifies foreign assets that do not generate reported income as capital flight. Avoidance of reporting investment income can be interpreted as the desire to place funds outside the control of the authorities. Thus, this technique distinguishes "normal" flows from flight capital.

The two-way flows are generated by attempts by the asset holders to arbitrage a yield differential. These flows are equivalent to round-trip flows observed among industrial countries.[10] The analysis is relevant for developing countries, too, since developing countries have a long history of financial repression, discriminatory taxes, and sometimes expropriation. These factors may at first deteriorate the fiscal position of the government. Residents then anticipate additional taxes and move money out; nonresidents, on the other hand, may return the money because they may have a preferred tax status, explicit government guarantees, or foreign exchange denominated assets which protect them from the risk faced by domestic investors.[11] This approach succeeds in explaining large movements of financial capital over short periods.

The estimates of capital flight arrived at with the aid of this technique can only be treated as approximations. Moreover, as *Dooley* points, with the aid of this technique it is not possible to establish whether or not such holdings are beyond the reach of the authorities for individual countries. A problem with such estimates is that they include reinvested income in the estimate of capital flight. Moreover, the estimate arrived at can be regarded as the minimum estimate of flight capital as it mainly captures capital flight due to tax avoidance. Also it captures only changes in the stock of capital flight. Capital flight ceases when asset holders report investment income on their assets. A problem can occur if the asset – holders report investment income on their assets abroad but do not repatriate the same. Thus, eliminating or even reversing, capital flight does not necessarily increase the resources available domestically in the country from which the capital initially flowed. The complete study of *Varman* (1989) on capital flight deals with both the estimating problems described above. It shows that Dooley's technique can be highly sensitive to the data employed and to the relevant interest rates in computing the market yield. Instead, it adopts a motivation based definition of capital flight and attempts to separate "normal" flows from capital flight in gross capital outflows by shifting regressions.

[10] For evidence and analysis of round-trip flows see *Dooley* (1980/81) and *Dooley* (1986).

[11] This argument is formalised in a theoretical framework in a study by *Ize* and *Ortiz* (1987).

V. A Summary Presentation of the Scale of Capital Flight

In this section a summary of some estimates of capital flight are presented. The objective of presenting data from different sources in one place is to determine whether the magnitude of capital flight can vary with respect to the technique or definition employed. Before we go on to the actual capital flight figures it would be useful to know the magnitude of external debt and the balance of payments position for the six selected countries (Table IV).

Table IV

External Debt and Balance of Payments for Selected Countries
(Billions of US-Dollars)

	Argentina	Brazil	Korea	Mexico	Philippines	Venezuela
Current Account Surplus						
1976 - 1982	− 8.6	−70.0	−18.2	−42.1	−11.7	− 3.8
1976 - 1984	−13.6	−76.8	−21.1	−32.9	−15.7	5.6
Excluded items						
1976 - 1982	6.1	3.6	4.1	22.0	2.3	4.4
1976 - 1984	7.7	4.8	6.2	27.8	3.7	6.8
Net FDI						
1976 - 1982	2.7	13.6	0.2	9.7	0.5	− 0.2
1976 - 1984	3.1	16.5	0.2	10.6	0.6	− 0.1
Private Short Term Capital						
1976 - 1982	−14.9	NA	1.8	− 9.8	− 3.3	−11.2
1976 - 1984	−14.7	NA	1.9	−15.8	− 3.1	−13.3
Portfolio Investment: Bonds and Equities						
1976 - 1982	0.0	NA	0.0	0.1	NA	− 0.9
1976 - 1984	0.0	NA	0.0	0.2	NA	− 0.9
Banking System Foreign Assets						
1976 - 1982	0.3	1.2	− 3.4	0.5	− 1.3	− 0.3
1976 - 1984	− 0.3	1.3	− 4.1	0.2	− 1.4	− 0.9
Change in Reserves						
1976 - 1982	− 2.8	3.2	− 4.3	0.6	− 1.1	− 1.8
1976 - 1984	− 0.5	− 0.3	− 4.7	− 3.5	0.7	− 3.7
Errors and Omission						
1976 - 1982	− 0.8	0.3	− 2.9	−19.6	− 0.3	0.9
1976 - 1984	− 1.2	0.1	− 4.8	−20.8	− 0.6	1.0
Change in Debt						
1976 - 1982	34.1	65.9	28.4	67.9	19.2	26.3
1976 - 1984	36.3	79.3	33.2	79.4	19.4	28.7

Source: Cumby and Levich (June 1987) Tables 1 - 6.

Table IV is a summary portrayal of the external position of the selected countries. It can be seen that Brazil and Mexico have the largest current account deficits. For Brazil, the change in external debt is consistent with the size of the deficit. But for Mexico the change in debt is almost double for 1976 - 84 as compared to the size of the current account deficit in the same period. In the case of Argentina and Venezuela, too, the build-up of external debt is too large in relation to the current account deficit. Since the increase in external debt should correspond to the financing requirements in the balance of payments, i.e., current account deficits and the changes in reserves, this large difference between external debt and current account deficits is interpreted by many as an indicator that the increase in debt has been utilized for other purposes, i.e., the acquisition of foreign assets. This is consistent with the general belief that the increase in flows of capital into developing countries following the two oil price shocks is part of the explanation for the existence of historically peak levels of external debt positions of developing countries. In 1982 total external debt of developing countries registered $ 825 billion, almost the size of the US budget and more than 3 times the budget of Japan in the same year. In comparison the total external debt of developing countries in 1970 was only $ 100 billion. The projected external debt for 1987 is $ 1080 billion. Furthermore, this increased availability of foreign exchange may have been responsible for providing funds to finance capital flight and thereby precipitating the debt crisis.[12]

Table V shows the scale of capital flight for 1976 - 82 and 1976 - 84 for six selected countries based on a common data base and consistent time period. The author draws heavily on the work of *Cumby* and *Levich* (June 1987) for this data set.

What is notable is that all measures of capital flight lead to some consistent results. It can be seen that according to all of them, the amount of capital flight is greater for Argentina, Mexico and Venezuela than the others. The estimate for these countries is high, both in absolute terms and in relation to the increase in external debt accumulated over the period (Table IV). South Korea and the Philippines experienced a small magnitude of capital flight. A comparison of Tables IV and V reveals that where increases in external debt has been large in relation to current account deficits, the magnitude of capital flight has been large.

[12] *Metias* (1982), contends that the 1970's constitutes the fifth wave of lending to the "backward regions". He identifies the periods 1817 - 25, 1860 - 76, 1900 - 14, and the 1920's as the previous four waves. All ended in widespread defaults. Some of the same countries were involved in the lending booms in the latter three waves – Argentina, Brazil, Egypt, Mexico, Spain and Turkey.

Table V

Capital Flight Estimates for Selected Countries
(Billions of US-Dollars)

	Argentina	Brazil	Korea	Mexico	Philippines	Venezuela
World Bank[a]						
1976 - 1982	22.4	5.8	3.3	25.3	4.5	20.7
1976 - 1984	NA	18.7	7.6	53.6	5.0	30.5
Erbe						
1976 - 1982	25.3	12.6	6.1	36.1	7.0	20.5
1976 - 84	25.3	18.7	7.6	53.6	5.0	30.5
Morgan						
1976 - 1982	25.5	11.5	2.8	35.7	5.6	20.2
1976 - 84	25.0	17.3	3.5	53.4	3.7	29.6
Cline						
1976 - 1982	19.4	7.9	−1.4	13.7	3.3	15.7
1976 - 1984	17.3	12.5	−2.7	25.6	0.0	22.8
Cuddington						
1976 - 1982	15.6	0.3	1.1	29.3	3.7	11.2
1976 - 1984	16.0	−0.1	2.8	36.2	3.7	13.1
Dooley[b] Khan and Ul Haque						
1976 - 1982	21.7	−1.7	2.8	17.3	5.4	13.3
1976 - 1984	21.4	6.0	3.6	30.4	1.8	25.7
Duwendag						
1970 - 1983	33.2	8.6	3.6	24.4	7.3	30.7

Source: Rows 1 - 6 from Cumby and Levich (1987) Tables 1 - 6.
a) Estimates for 1979 - 1982 are given rather than 1976 - 1982.
b) Estimates for 1978 - 1982 are given rather than 1976 - 1982. All numbers are from Dooley (1986) and are not replicated using consistent data base.

The data set shows that the smallest measure of capital flight is obtained from *Cuddington*'s measure. This is because Cuddington only includes short term flows in the measure of capital flight, while other measures include long term flows.

While interpreting *Dooley*'s estimate it should be borne in mind that the estimate shows the stock of claims on which investment income is unreported. Stock of claims on which investment income is reported (not shown here) are those due to "normal" flows.

Duwendag's measure is consistent with the general magnitude trend of capital flight obtained from other measures. Differences in magnitude arise because of the period under consideration and also the sources of data utilized. Also Duwendag separates errors and omissions and counterpart items from his estimate.

There are no major differences in the estimates by *Erbe, Morgan Guaranty Trust Company,* and the *World Bank. Cline*'s adjustment, however, makes significant changes, particularly in the case of Mexico. South Korea, actually experiences a return of capital with Cline's adjustment.

1. Shortcoming of the Estimates

Zedillo (1986) argues that the statistics used by *Morgan Guaranty* and others to estimate changes in external debt are misleading. This is especially true in the case of Mexico. The coverage of debt statistics has improved markedly since 1982. Prior to the debt crisis, there was neither a legal requirement nor any motivation for the registration of Mexican private sector external debt. The statistical coverage has improved since then. Despite a modest level of actual new borrowing the recorded debt increased tremendously in 1983 - 84. Thus any estimate of capital flight for this period is overestimated.

Cumby and *Levich* (1987) point out another problem. This is related to the valuation of external debt because of exchange rate changes. Nondollar denominated external debt will fluctuate without any changes in actual new borrowing. With a depreciation of the dollar the value of nondollar denominated debt increases and the reverse occurs with a dollar appreciation.

Gulati (1986) points out that the measure of capital flight arrived at can be affected by underinvoicing exports or overinvoicing imports. Prior to this study it was generally believed that this channel for capital flight transactions was widely used and, therefore, the measures available were underestimated (*Morgan Guaranty Trust Company,* 1986). Gulati (1986) analyses eight debtor countries for the period 1970 through 1985 and uses the partner country analysis to test for over- and underinvoicing. The estimates are generated by examining the partner country trade statistics of these eight countries with the industrialized countries. The main conclusions of Gulati's findings (Appendix 1, 2, and 3) are that many countries show up as underinvoicers of exports but contrary to the general expectation, they also show up as underinvoicers of imports. Thus, the conclusion is that invoice-faking decreases the capital flight magnitude. Underinvoicing of exports is used for illegal outflow of foreign exchange, but the increased supply of foreign exchange is more than made up by the increased demand caused by those traders who underinvoice imports to escape high tariffs or quantitative restriction.

Thus, faked invoicing figures should be used to adjust capital flight figures. *Gulati* has made adjustments to the measures of Dooley et al. (1983)

(referred to as D-H-T-U) and *Cuddington* (1986) (Appendix 1), *Dooley* (1986) (Appendix 2) and *Morgan Guaranty Trust Company* (1986) (Appendix 3).

2. *Capital Flight from other Countries*

Besides the countries analysed at length above, studies by *Duwendag* (1986), *Erbe* (1985), and *Morgan Guaranty Trust Company* (1986) reveal that the phenomenon of capital flight has been observed in several other countries. (See Appendix 4, 5, and 6)

Duwendag's study reveals there are other prominent cases of capital flight. The countries from which capital flight magnitude ranged from 40 percent and above to total external debt in his study are, India (40.2%), Malaysia (53.8%), Romania (42.5%), Portugal (52.2%), Egypt (63.1%), and South Africa (45.7%). Estimates of the scale of capital flight by Erbe (1985) does not consist of the name sample of countries. Where the same countries are present in both the samples, the occurrence of the phenomenon is confirmed, but estimates vary in magnitude. The variation can be explained by the different time periods covered and different sources of data used in both the studies.

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Appendix 1: **Capital Flight Estimates and Adjustments for Over- und Underinvoicing**
(million dollars)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	Total 1974 - 82	Total adjusted for misinvoicing 1974 - 82
Argentina											
D-H-T-U	800	0	– 200	900	3 000	1 700	6 700	7 700	– 400	20 200	15 585
Cuddington	36	– 163	266	– 618	1 497	–1 693	2 301	8 680	4 978	15 285	10 970
Misinvoicing	– 204	417	94	272	– 414	–2 367	–1 890	– 349	126	– 4 315	—
Brazil											
D-H-T-U	300	3 000	–1 600	2 400	4 400	1 100	1 800	– 200	200	11 400	12 824
Cuddington	64	427	– 496	618	– 299	–1 227	351	390	379	206	1 630
Misinvoicing	– 518	1 340	– 514	– 543	– 713	856	1 319	324	– 127	1 424	—
Chile											
D-H-T-U	200	800	– 400	– 700	– 800	600	– 200	– 500	500	– 500	– 6 184
Cuddington	47	– 25	– 252	– 503	– 250	– 416	– 482	– 899	792	– 1 988	– 7 672
Misinvoicing	– 926	– 677	– 397	– 494	– 126	– 470	– 949	– 830	– 815	– 5 684	—
Korea											
D-H-T-U	– 300	300	300	1 100	2 600	300	– 600	–3 100	6 400	7 000	668
Cuddington	– 69	– 453	– 112	12	1 524	– 516	–1 607	494	1 285	558	– 5 774
Misinvoicing	– 467	– 262	– 160	–1 083	–1 973	– 551	– 772	630	–1 694	– 6 332	—
Mexico											
D-H-T-U	1 600	1 100	3 500	4 300	800	2 800	7 300	8 200	6 700	36 300	29 968
Cuddington	1 272	1 285	3 331	917	517	1 147	4 826	11 510	7 558	32 662	26 504
Misinvoicing	623	166	– 58	619	– 585	– 852	–3 025	–2 407	– 639	– 6 158	—

Appendix 1 (Fortsetzung)

Peru											
D-H-T-U	− 100	1 400	300	− 100	500	300	200	200	100	2 800	− 1 104
Cuddington	72	826	328	112	− 51	13	187	− 468	148	1 167	− 2 707
Misinvoicing	− 329	− 260	54	67	− 100	−1 022	−1 119	−1 102	− 93	− 3 904	—
Philippines											
D-H-T-U	200	300	500	1 000	700	300	− 300	700	500	3 900	na
Cuddington	na	na	na	na	na	na	na	na	na	na	na
Misinvoicing	na	na	na	na	na	na	na	na	na	na	na
Uruguay											
D-H-T-U	na	na	na	na	na	na	na	na	na	na	na
Cuddington	82	38	13	− 42	− 159	5	− 90	184	1 161	1 193	− 348
Misinvoicing	− 98	2	− 43	− 42	− 229	− 265	− 339	− 31	200	− 845	—
Venezuela											
D-H-T-U	− 100	700	− 300	− 900	900	4 800	4 700	7 400	8 300	25 500	25 557
Cuddington	522	− 155	− 401	−1 736	− 943	−2 354	3 366	5 013	7 464	10 776	11 293
Misinvoicing	− 352	603	− 123	− 208	1 133	−1 031	− 20	677	− 162	517	—

Minus sign indicates a net inflow of capital.
na Not available
— Not applicable

Estimates in table may not total to those above because of rounding.
Source: D-H-T-U and Cuddington figures are from Dooley, Helkie, Tryon and Underwood (1983) and Cuddington, cited here from Cumby and Lewich (1987).

Appendix 2

Morgan Guaranty Estimates of Capital Flight and Adjustments for Trade Misinvoicing, 1983 - 85

(billion dollars)

	Morgan Guaranty	Misinvoicing	Adjusted total
Argentina	− 1	− 1	− 2
Brazil	7	− 1	6
Chile	− 1	− 3	− 4
Korea	6	− 7	− 1
Mexico	17	−14	3
Peru	1	0	1
Uruguay	0	1	1
Venezuela	6	0	6

Minus sign indicates a net inflow of capital.
Source: Morgan Guaranty Trust Company (1986).

Appendix 3

Dooley's Estimates of Capital Flight and Adjustments for Trade Misinvoicing 1978 - 84

(billion dollars)

	Dooley	Misinvoicing	Adjusted total
Argentina	21.4	− 5.8	15.6
Brazil	5.0	− 1.0	− 4.0
Chile	− 1.5	− 5.3	− 6.8
Korea	3.6	− 9.6	− 6.0
Mexico	31.6	−19.0	12.6
Peru	− 1.0	− 3.6	− 4.6
Venezuela	25.1	0.3	25.4

Minus sign indicates a net inflow of capital.
Source: Dooley (1986).

Erbe

Appendix 4: **Estimates of the Flight of Capital from Selected Countries, 1976 - 1982**
(in millions of US dollars and percentages)

Continent/ country	Increase in external indebtedness based on OECD data – in millions of US dollars – (1)	Increase in short-term indebtedness (2)	Net capital inflow based on balance of payments statistics (3)	Unrecorded capital exports taking into consideration: Medium & long-term indebtedness US$m[a] (4)	Medium & long-term indebtedness %[b] (5)	Total indebtedness US$m[c] (6)	Total indebtedness %[d] (7)
Latin America							
Argentina	22 787	6 070	5 636.9	17 150.1	(75.3)	23 220.1	(80.5)
Bolivia	1 850	–	1 158.3	691.7	(37.4)	–	–
Brazil	49 857	11 219	53 271.0	– 3 414.0	(0.0)	7 805.0	(12.8)
Colombia	4 560	2 068	6 376.6	– 1 816.6	(0.0)	251.4	(3.8)
Costa Rica	2 237	–	1 392.0	845.0	(37.8)	–	–
Ecuador	3 404	–	4 085.2	– 681.2	(0.0)	–	–
El Salvador	678	–	432.2	245.8	(36.3)	–	–
Guatemala	1 135	–	884.4	250.2	(22.0)	–	–
Honduras	1 049	–	1 296.4	– 247.4	(0.0)	–	–
Jamaica	1 102	–	804.3	297.7	(27.0)	–	–
Paraguay	1 023	–	1 912.6	– 889.6	(0.0)	–	–
Peru	5 132	765	4 991.7	140.3	(2.7)	905.3	(15.4)
Mexico	43 824	22 087	30 336.2	13 487.8	(30.8)	35 574.8	(54.0)
Venezuela	14 281	2 557	5 827.4	8 453.6	(59.2)	11 010.6	(65.4)

Appendix 4 (Fortsetzung)

Africa & Middle East							
Cameroon	1 789	–	1 422.5	366.5	(20.5)	–	–
Egypt	11 535	–	7 591.4	3 943.6	(34.2)	–	–
Jordan	1 860	–	1 204.4	619.6	(33.3)	–	–
Kenya	1 834	–	2 706.9	– 872.9	(0.0)	–	–
Lesotho	139	–	177.3	– 38.3	(0.0)	–	–
Liberia	466	–	463.1	+ 2.9	(0.6)	–	–
Morocco	7 825	–	9 821.3	– 1 996.3	(0.0)	–	–
Nigeria	6 490	–	3 747.4	2 742.6	(42.3)	–	–
Syria	1 968	–	78.9	1 889.1	(96.0)	–	–
Tunisia	2 676	–	2 293.3	382.7	(14.3)	–	–
Yemen	1 158	–	1 657.8	– 499.6	(0.0)	–	–
Zambia	1 470	–	1 041.5	428.5	(29.1)	–	–
Zimbabwe[e)]	1 024	–	1 743.5	– 719.5	(0.0)	–	–
Asia							
India	6 403	–	4 271.3	2 131.7	(33.3)	–	–
Indonesia	11 669	–	6 504.6	5 164.4	(44.3)	–	–
Korea	16 223	–	22 259.8	– 6 036.8	(0.0)	–	–
Papua-New Guinea	523	–	894.6	371.6	(0.0)	–	–
Philippines	9 221	–	12 294.0	– 3 073.0	(0.0)	–	–
Thailand	6 308	–	9 371.0	– 3 063.0	(0.0)	–	–
Turkey	11 373	–	11 721.3	– 348.3	(0.0)	–	–

a) (1) - (3) b) $\frac{(1) - (3)}{(1)} \times 100$ c) (1) + (2) − (3) d) $\frac{(1) + (2) - (3)}{(1) + (2)} \times 100$. e) 1977 - 82. f) 1976 - 81.

Sources: OECD External Debt of Developing Countries. 1983 Survey, IMF, Balance of Payments Statistics. Vol. 35, Yearbook Part 1, 1964; IDB, External Debt and Economic in Latin America, Background and Prospects, Washinton, D.C., January 1984.

Duwendag

Appendix 5

25 Großschuldner: Private Kapitalabflüsse ins Ausland (KA), Stand der Auslandsverschuldung (VAB) Ende 1983 und Nettoauslandskredite (VA) von 1970 - 1983
(in Mrd. $)

	VAB	VA	KA[a]	$\frac{KA}{VA}$ (%)
	Ende 1983	1970 - 1983	1970 - 1983	
1. Argentinien	44,4	43,1	33,2	77,0
2. Brasilien	88,0	85,7	8,6	10,0
3. Chile	14,1	12,6	− 2,6	−19,0
4. Kolumbien	10,7	9,5	1,9	20,0
5. Mexiko	89,4	86,6	24,4	28,2
6. Peru	12,4	11,7	3,4	29,1
7. Venezuela	35,1	34,5	30,7	89,0
Lateinamerika	294,1	283,7	99,8	35,3
1. Indien[b]	22,5	11,7	4,7	40,2
2. Indonesien	30,4	27,9	7,3	26,2
3. Korea	38,9	37,5	3,6	9,6
4. Malaysia	15,9	15,6	8,4	53,8
5. Pakistan	9,7	7,0	− 2,0	−28,6
6. Philippinen	24,0	23,5	7,3	31,1
7. Thailand	14,2	14,0	0,7	5,0
Asien	165,6	137,2	30,0	21,9
1. Jugoslawien	16,9	16,0	4,1	25,6
2. Rumänien	8,0	8,0	3,4	42,5
3. Ungarn	7,7	7,7	3,0	39,0
4. Portugal	14,4	13,8	7,2	52,2
5. Türkei	17,5	15,6	− 0,5	− 3,2
Europa	64,5	61,1	17,2	28,2
1. Ägypten	24,0	22,5	14,2	63,1
2. Israel	22,6	22,3	5,2	23,3
3. Algerien	13,6	13,0	1,7	13,1
4. Marokko	12,1	11,4	0,2	1,8
5. Nigeria	17,8	17,6	5,1	29,0
6. Südafrika	22,0	21,0	9,6	45,7
Afrika/Nahost	112,1	107,8	36,0	33,4
25 Großschuldner	626,3	589,8	183,0	31,0

a) −: Repatriierung von privaten Kapitalanlagen aus dem Ausland.
b) Angaben nur für 1970 - 1981.
Quellen: Vgl. Anmerkungen zu Tab. 1. – Eigene Berechnungen.

Appendix 6: **Estimated Net Capital Flight**
cumulative flows during 1976 - 85, billions of dollars, minus sign indicates outflows

	Net direct investment inflows	Change in gross external debt	Current account balance*	Change in selected gross foreign assets**	Capital flight***		
					Total	1976 - 82	1983 - 85
Argentina	4	42	−15	− 4	−26	−27	1
Bolivia	0	3	− 2	− 0	− 1	− 1	0
Brazil	20	80	−77	−13	−10	− 3	− 7
Chile	2	16	−16	− 3	1	0	1
Colombia	2	10	−11	− 2	0	0	0
Ecuador	1	7	− 5	− 1	− 2	− 1	− 1
Mexico	11	75	−29	− 3	−53	−36	−17
Peru	0	8	− 6	− 2	− 0	1	− 1
Uruguay	1	4	− 3	− 1	− 1	− 1	− 0
Venezuela	− 0	26	10	− 5	−30	−25	− 6
Subtotal	40	270	−154	−33	−123	−93	−30
India	0	22	− 8	− 5	−10	− 6	− 4
Indonesia	2	27	−15	− 9	− 5	− 6	1
Korea	0	40	−22	− 6	−12	− 6	− 6
Malaysia	9	19	−12	− 4	−12	− 8	− 4
Nigeria	2	18	−15	4	−10	− 7	− 3
Philippines	1	23	−16	1	− 9	− 7	− 2
South Africa	− 2	16	2	2	−17	−13	− 4
Thailand	2	17	−17	− 1	− 0	1	− 1
Subtotal	14	181	−102	−18	−75	−52	−23
Total for 18 countries	54	451	−256	−51	−198	−145	−53

* Minus sign indicates deficit. – ** Official reserve assets and other foreign assets of official monetary authorities plus foreign assets of commercial banks and certain other banking institutions. Minus sign indicates increase in foreign assets. – *** Apparent change in other foreign assets (minus sign indicates increase) through residual capital flows measured as the counterpart of the sum of net direct investment inflows, change in gross external debt, current account balance, and change in selected gross foreign assets. Direct investment and current account data are taken from the reported balance of payments. Debt and asset changes are derived from estimated year-end outstandings in dollar terms.
Note: Due to rounding columns and rows may not add. – Morgan Guaranty Trust Company, World Financial Markets (March 1985).

Zusammenfassung

Einige Bemerkungen zur Definition und Bedeutung der neueren Kapitalflucht aus Entwicklungsländern

Das Ausmaß der Kapitalflucht läßt darauf schließen, daß es sich um eine Reaktion auf asymmetrische Risiken handelt. Dabei haben viele unter Kapitalflucht leidende Länder erfahren, daß Kapitalströme sich im Kreis bewegen. Sofern diese Ströme als realer Transfer aufgefaßt werden, müßten sie über einen wesentlich längeren Zeitraum aufgetreten sein. Das Argument, Kapitalflucht führe zu einem (Investitions-) Verlust für die Volkswirtschaft, ist wenig überzeugend, weil Kapitalabflüsse durch den Zustrom ausländischer Kredite ausgeglichen werden.

Allerdings nahm internationale Bankkreditvergabe in den letzten Jahren ab. Es muß noch untersucht werden, welche Auswirkungen dies auf die Art und Weise hat, in der Kapitalflucht vor sich geht. Ein adäquates Schätzmodell muß entwickelt werden, um den mit dem Versiegen der Kapitaleinfuhr möglicherweise verbundenen Transfer von Ressourcen zu messen. Falls Methode I angewendet werden soll, müßte ein Verfahren entwickelt werden, um Handelskredite und durch normale Portfoliodiversifikation induzierte Kapitalströme von der zu schätzenden Kapitalflucht zu unterscheiden.

Die politischen Maßnahmen zur Kontrolle und Beseitigung dieses Problems setzen eine genaue Kenntnis der Art des transferierten Fluchtkapitals voraus. Von vornherein eine Definition festzulegen würde die Übersichtlichkeit beeinträchtigen. Die Wahl der Definition sollte vom jeweils überprüften Zeitraum und Land abhängig gemacht werden. In einem Land könnte sich ein einseitiger Kapitalstrom oder es könnten sich gegenläufige Kapitalströme vollziehen. Im ersteren Falle würde sich aufgrund makroökonomischer Anpassung ein verbessertes gesamtwirtschaftliches Investitionsklima ergeben. Die im Zusammenhang mit der Kapitalflucht analysierten zweiseitigen Kapitalströme würden Maßnahmen erforderlich machen, die die Ursachen der Diskriminierung einheimischen Kapitals beseitigen. Die Lösung dieses Problems könnte durch Verständnis des Phänomens wesentlich verbessert werden.

Summary

Some Remarks on the Definition and Magnitude of Recent Capital Flight from Developing Countries

The magnitude of capital flight flows suggest that they are a response to asymmetric risk. What many capital flight afflicted countries have really experienced is "round tripping" of flows. If these flows are being interpreted as a real transfer then the outflows should have occured over a considerably longer period of time. The argument that capital flight results in a loss to the economy in terms of investment is weak since outflows were matched by inflows of foreign borrowing.

Recent years, however, witnessed a decline in international bank lending. Further research is needed to investigate the consequences of this on the type of capital flight taking place. An adequate estimating model needs to be developed to measure a

resource transfer which might occur when inflows of capital taper down. If Method I is to be adopted then we have to develop a technique to separate commercial credits and normal portfolio diversification induced flows from the capital flight estimate.

Policies to control and eradicate the problem need a clear understanding of the type of capital flight being transacted. An a priori choice of definition would cloud our understanding. The choice should depend upon the particular historical episode and country under investigation. A country could experience a one-way flow or two-way flows. The first entails an improvement in the overall investment climate brought about by macroeconomic adjustment. Bi-directional flows as analysed in the capital flight context require policies that root out the causes leading to discriminatory treatment of domestic capital. Solution to the problem will be greatly enhanced by an understanding of the phenomenon.

Résumé

Quelques remarques sur la définition et l'amplitude de la fuite récente de capitaux en provenance des pays en voie de développement

L'importance des mouvements de fuite de capitaux suggère qu'ils répondent à un risque assymétrique. Ce que de multiples fuites de capitaux affligeant les pays ont réellement expérimenté, c'est une véritable „croisière" des courants. Si ces mouvements sont interprétés comme un transfert réel, les sorties auraient dû se produire au cours d'une période nettement plus longue. L'argument, soutenant que l'évasion de capitaux se solde en perte pour l'économie en termes d'investissements est une thèse faible. En effect, les sorties de capitaux ont été compensées par des affluences d'emprunts étrangers.

Les dernières années toutefois témoignent d'un déclin des prêts bancaires internationaux. Des recherches supplémentaires sont nécessaires pour investiguer les conséquences de cette situation sur le type d'évasion de capitaux survenant. Il faut développer un modèle d'estimation adéquat capable de mesurer comment les ressources pourraient être transférées lorsque les entrées de capitaux diminuent. Si la méthode I doit être adoptée, nous devons développer une technique pour distinguer les crédits commerciaux et la diversification normale des portefeuilles, entraînant des mouvements de capitaux, de la fuite de capitaux estimée.

Les politiques visant à contrôler et à extirper le problème doivent comprendre clairement le type de fuite de capitaux en cours. Un choix à priori de définition embrouillerait notre compréhension. Le choix devrait dépendre du contexte historique particulier et du pays examiné. Il se peut qu'un pays connaisse des mouvements de capitaux dans un sens ou dans les deux directions. Dans le premier cas, le climat d'investissement général s'améliore à cause de l'ajustement macroéconomique. Des mouvements dans les deux directions, comme ceux analysés dans le contexte de la fuite de capitaux requièrent des politiques qui déracinent les causes faisant traiter de façon discriminatoire le capital national. Le problème pourra être beaucoup mieux résolu si on comprend le phénomène.