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INTERNATIONAL CAPITAL FLOWS:
AN EVALUATION OF TURKISH CAPITAL FLIGHT

by

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A dissertation submitted to the Graduate Faculty in Economics in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Abstract

INTERNATIONAL CAPITAL FLOWS:
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by

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Capital flight was a major economic concern during the early eighties. More recently, events in South America, Asia, and elsewhere have shown that it remains an important issue for individual countries and the entire world. Given the issue's importance, there is an extensive amount of literature on capital flight on the subject but there is still not a common definition of capital flight. The study reviews the major definitions and estimates the determinants of capital flight in Turkey from 1971-1995.

In early studies, the major reasons for capital flight were high inflation, overvaluation of currencies and interest rate differences between the country under study and the United States. Using the five major capital flight measures with Turkish economic data reveals that four definitions (World Bank, Morgan Guaranty, Cline, and Dooley) yield similar results while the Cuddington method differs significantly.

In this study, capital controls in the country, deficit to GNP ratio, overvaluation of the Turkish Lira and real and nominal interest rate differentials between Turkey and Germany are revealed to be the key determinants for capital flight from Turkey. The results show that capital control, overvaluation of the currency, high deficit-GNP ratio and nominal interest rate differences enter the equation significantly with the expected signs. Real interest rate differentials do not appear to be a significant factor in determining capital flight from Turkey. The study also looks at the effect of political instability on capital flight, the results are insignificant.

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CHAPTER 1

INTRODUCTION

Capital flight is a concept that attracted widespread attention in the early eighties, particularly in the context of the Latin American economies. It remains important to individual countries and the entire world, both to understand the impact of capital outflows on countries suffering such losses and to perceive what it means to increasingly intertwined global capital markets and the overall world economic structure. Capital flight is a symptom of other underlying fundamental issues. The concept must be studied because it's often the symptoms that kill the patient or allow us to identify and possibly cure the underlying disease. In and outside of affected countries it is an important concern. As Lessard and Williamson note, capital flight "has intensified the foreign-exchange constraint on those countries to a degree that has been damaging to the prosperity of the world as a whole, and even to the collective interest of the wealthy class that has bought foreign assets" (1987).

In Latin America during the early 1980s capital flight reached high levels. Economic downturns and overvaluation of currencies were the main causes. Economic analysis of the earlier problems produced a wealth of literature dedicated to capital flight. I have reviewed this body of work and relevant later efforts and applied this research to a case study of capital flight from Turkey from 1971 to 1995. I analyzed data on the Turkish economy, determined the relevancy of the current literature, and identified a revised model and some motivations to account for such activity in this new area and timeframe. Finally, I discuss the general, worldwide implications of my findings and the specific risks and opportunities the situation presents to Turkey, its trading partners, and individual or corporate investors in and outside of the country. The results are significant in a number of areas, and could prove especially relevant to the current hot topic of emerging markets investing. The issue certainly remains relevant, as I write, the recent wave of capital flight from Asia, Russia, and Brazil is worrying the entire world.

CHAPTER 2

LITERATURE on CAPITAL FLIGHT

A vital starting point for measuring capital flight is developing a definition. The concept undeniably goes back to the most ancient times. Since mankind first possessed portable valuables, some have struggled to protect their capital by moving it out of harm's way or simply to gain better returns on their investments--often to the detriment of the general utility of their community or nation. Carthaginian merchants certainly searched to find safe havens for their capital as their government struggled to pay for and survive its ultimately unsuccessful conflict with Rome. The same is true for ancient Egyptians, Lydians, and Greeks, later Byzantines, French, Nazi Germans and countless others. In 1937 Kindleberger defined capital flight as: "Abnormal flows propelled from a country.... by.... any one or more of a complex list of fears and suspicions" (1937). Exactly what constitutes capital flight still varies according to ones perspective. Brazilian economist Stephen Charles Kanitz (1984 Renegotiating the Brazilian Debt. Wall Street Journal, Sept 21 1984) asked:

> Why is it that when an American puts money abroad it is called "Foreign Investment" and when an Argentinean does the same it is called "Capital Flight?" Why is it that when an American company puts 30 percent of its equity abroad it is called "Strategic Diversification" and when a Bolivian businessman puts only 4 percent abroad it is called "Lack of Confidence?"

In actuality, capital flight is a form of diversification with people, corporations and even governments balancing risk and return and deciding the risk out weighs the potential return in a given country. The United States does indeed face significant capital outflows, but fortunately for it, foreign investment inflows; driven to seek perceived safety, diversification or better risk-adjusted returns; counterbalance the loss. If capital outflow is unbalanced by inflows, it becomes a serious problem. This outflow is generally

considered capital flight. Kindleberger's definition holds that money running away from some combination of economic and political risk is capital flight. Money simply going elsewhere to look for better economic opportunities is portfolio choice. But the two are really heads and tails of the same coin, with the sum of the overall inflows and outflows being critical.

In terms of modern economies and financial systems, the most important works date from the 1970s or later and address capital flows based on economic and security concerns something short of life and death struggles. The current literature reflects four major methods of measuring and defining capital flight. Detailed below, these include: a residual method based on measuring capital outflows (World Bank), measuring the stock of unreported foreign assets (Dooley), hot money measures (Cuddington), and figures based on trade misinvoicing.

World Bank Residual Approach: The World Bank takes the broadest definition and therefore measure of capital flight, attempting to account for all outflows that exceed inflows. It uses balance of payments data and calculates capital flight as a residual. The World Development Report (1985) defines capital flight as "the sum of gross capital inflows and the current account deficit, less increases in official foreign reserves". (Page 64, line 17). Capital inflows include the sum of changes in the gross foreign debt (public and private), and net foreign direct investment in the country. If the summation of the capital inflows (increase in debt and net foreign direct investment) is larger than the summation of capital outflows (current account deficit and increase in official reserves), the extra capital inflow is considered capital flight. The residual balance of money that entered the country but whose use can not be accounted for within the country is presumed to have left it as capital flight. This change in foreign claims by the private sector is the World Bank measurement of capital flight. The method includes "normal" portfolio investments abroad as capital flight as well as illegal transactions. The original World Bank study examined eight countries: Venezuela, Argentina, Mexico, Uruguay, Portugal, Brazil, Turkey and Korea. It found overvalued currencies, high and variable

inflation, and repressive financial policies were the primary reasons for capital flight from these countries.

Morgan Guaranty (1986), Cline (1986) and Claessens (1993) use the World Bank residual approach with some modifications. Morgan Guaranty subtracts the change in the short-term foreign assets held by banks from the World Bank capital flight figures. It defines capital flight as "the reported and unreported acquisition of foreign assets by the non-bank private sector and some elements of the public sector." It doesn't consider the short-term assets held by the banks as capital flight. As a result, Morgan Guaranty results generally show a lower magnitude of capital flight than World Bank figures.

Cline's (1986) method of measuring capital flight is also very similar to the World Bank and Morgan measurements. He takes Morgan Guaranty's figures but also subtracts travel (credit), re-invested FDI income (abroad and domestically) and other investment income (credit). He believes these items should not be included in the calculations of capital flight because they are not under the control of foreign exchange authorities. His focus is the marginal propensity of capital to leave the country.

Susan Erbe (1985) also uses the residual method, but uses OECD balance of payments statistics instead of World Bank figures. She sees both legal and illegal capital export as a major problem for developing countries. Erbe explains capital flight motives in terms of exchange rate incentives: the overvaluation of the domestic currency, interest rate and tax differences in countries, inflation rates in domestic country, and risk and security. She examined the scale of capital flight on 34 Less Developed Countries and found Mexico, Argentina, Venezuela and Indonesia experienced the largest flight of capital. She concludes that "mistaken economic policies led sooner or later to capital flight." But she also believes that the export of capital leaves open the possibility that the capital will return home when the economic climate improves and it can then be invested efficiently.

Zedillo (1987) and Eggerstedt and Hall (1995) took the World Bank approach but also modified its capital flight figures, subtracting assets held by the public sector. They consider assets held by the public sector outside the country an "official use of funds," firmly under government control. The authors believe such assets should not be considered capital flight. They believe capital flight is over-estimated if these assets are not subtracted. Zedillo said curing the capital flight "disease" required liberalization of the domestic banking system with respect to the determination of deposit interest rates, easing the taxing system at least temporarily, and reducing the inflation rate well below current levels when capital flight occurred. He showed that a primary cause of the negative flows from Mexico during its massive capital flight years were the highly negative real domestic interest rates and the perceived overvaluation of the Peso. This was the result of high inflation and artificially repressed nominal interest rates. (1987) Zedillo also blamed part of the capital flight from Mexico on the expansion of international financial markets, which eased government borrowing and also made it much easier for residents to invest in an attractive menu of foreign currency denominated financial assets that were often even tax-free. He believes "successful controls require total control of current account transactions, together with efficient repression of parallel (or black) foreign exchange markets, both within and outside the territory of the country implementing the controls."

Dooley (1986) developed the second major method. He believes capital flight is best measured by extrapolating it from income residents receive from unreported investments held overseas. He defines capital flight as: "The stock of claims on non-residents held by the private sector that don't generate investment income receipts in the creditor country's balance of payments accounts." According to him these figures reflect the unreported capital outflows, hidden from the country's domestic authorities, that are true capital flight.

He considers reported earnings as "normal" flows because of the portfolio diversification

availability. He explains capital flight results from the different economic advantages and disadvantages non-resident and resident investors face in a country. He finds that residents and non-residents face different risks. Nonresidents may be allowed to invest in foreign currency denominated claims, while residents are often subject to higher domestic taxes and the "inflation tax" ravages of domestic inflation and exchange rate depreciation. Foreigners are attracted by the fall in prices (increase in yields), especially when they can buy domestic financial assets denominated in foreign currency. Such actions create "round trip" capital flows until the opportunities for arbitrage are reduced for non-residents. Because of such different tax treatment to each investor group, residents might invest abroad to avoid the tax burden they face in their own country.

He believes domestic inflation (through money creation), financial repression (difference between interest rates paid on short term assets denominated in US dollars and time deposits denominated in the subject countries' domestic currency and adjusted for actual exchange rate changes) are key capital flight causes. A positive value for financial repression would create high capital flight, as would a significant risk premium. He found that risk differentials, inflation, and financial repression had a high correlation on the degree of capital flight from the country.

Cumby and Levich (1987) note a significant problem with Dooley's approach:

> Dooley's definition of capital flight implies that if all capital outflows and the investment income on them were reported, then there would be zero capital flight. This suggests that the loss of national utility from capital flight comes not from the diversion of domestic capital to offshore investments, but rather from the loss of foreign-exchange receipts upon repatriation of offshore earnings and the loss of taxing power over these offshore earnings."

Stijn Claessens and David Naude (1993) examined the alternative methodologies used to determine capital flight using data from 84 developing countries. They found the

identities used in balance of payments data make capital flight figures calculated using the World Bank and Dooley methods very similar. They also show capital flight is not merely a Latin American phenomenon.

P.H. Kevin Chang, Stijn Claessens, and Robert E. Cumby (1997) repeated Claessens' and Naude's 1993 study, re-affirming the original findings that the results obtained by the World Bank and Dooley methods are closely related and also found that capital flight varied in close correlation with GDP across their entire sample of 58 countries.

Cuddington's definition is the third major approach. It is a more narrow interpretation of capital flight than the Dooley and World Bank variations. He focuses on short-term capital flows rather than all external claims held by the private sector. He excludes banking sector outflows from his calculations. The result is generally smaller figures for capital flight than the World Bank and Dooley numbers. He defines capital flight as short-term speculative capital outflows. "It involves 'hot money' that responds to political or financial crisis, heavier taxes, a prospective tightening of capital controls, or actual or incipient hyperinflation." (1986) He explains capital flight with the standard three-asset portfolio adjustment model. "Domestic households allocate their wealth among domestic financial assets (D_t), domestic inflation hedges such as land (H_t), and foreign financial assets (F_t)." (1986). He shows overvalued exchange rates and high domestic inflation rates are the most important determinants of capital flight into the foreign financial assets component of that portfolio.

Conesa (1987) also studied capital flight with this approach, considering the short-term capital movements and errors and omissions in the balance of payments accounts. He believes the errors and omissions figures arise "... primarily because of a failure to measure many movements of private short-term capital." He said the lack of economic growth in the source country, an overvalued exchange rate, a high US interest rate (nominal), local inflation, an excessive fiscal deficit, and the real local interest rate were important determinates of capital flight.

Cumby and Levich (1987) criticized the method adapted by Cuddington and Conesa, noting that the unreported short-term capital is not the only item in errors and omissions figures. They also recognized that investors reacting to unfavorable conditions in a country, such as hyperinflation and anticipated devaluation, don't move capital out of the nation solely via investments in short-term financial assets, they also move into and out of longer term financial assets

Heather Gibson and Euclid Tsakalotos (1993) examined the problem of capital flight in Western Europe. They used Cuddington's method to measure capital flight because they desired to focus on short-term capital flows. They found expectations of domestic currency depreciation and political uncertainty were significant factors in capital flight from selected European countries. They also noted that economic policies favoring development also tend to favor capital flight, placing economic decision-makers in a difficult position. Lending to a country might create a double burden if private or public agents in the country ultimately place big chunks of this debt into foreign assets rather than to productive use at home.

A forth method for measuring capital flight comes from examining trade misinvoicing figures. When traders fake invoices, the balance of payments data don't accurately reflect the flow of goods, services and money. Exporters sometimes underinvoice their exports' value and surrender only that amount to the domestic monetary system, leaving the rest in the importing country. Importers can also overinvoice the value of imports. After paying their actual value to the exporter, the difference would be kept in the exporting country as capital flight. In 1974, Bhagwati, Krueger, Wibulswasdi studied capital flight in 28 less developed countries, comparing declared exports of LDC's and recorded imports of their trading partners. They found at least 19 of them experienced the underinvoicing of exports and explained it as capital transferred illegally out of the country. They found no significant overinvoicing of imports. Claessens (1993), Erbe (1985), and others also found such trade misinvoicing could be a significant factor in capital flight.

Gulati (1985) also used partner country trade data to estimate capital flight. Gulati believed the definition of capital flight should be limited to illegal capital outflows. He found that contrary to previous works, trade misinvoicing often reduces capital flight. Gulati showed many developing countries were underinvoicing exports, but they were also simultaneously underinvoicing imports due to the opposing incentives caused by tariffs, quotas and other trade restrictions. "In most cases, the increased supply of foreign exchange is more than made up for by the increased demand caused by those traders' underinvoicing imports to escape high tariffs or quantitative restrictions." As a result, he believes misinvoicing actually produces overestimation of capital flight, since under-invoicing of imports outweighs the underinvoicing of exports current account. As we will see, his argument is even more valid in the case of countries such as Turkey that heavily promote exports, giving businesses strong incentives to overinvoice exports to qualify for large subsidies, tax rebates and other benefits.

Other Aspects of Capital Flight

Walter (1987) discusses capital flight's motivations, process, and implications without modeling or measuring it for any countries. He believes capital flight occurs when transfers conflict with political objectives. He defines capital flight as "...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 objective of asset holders and governments. It may or may not violate the law. It is always considered by the authorities to violate an implied social contract." Walter attempts to differentiate between normal international flows in terms of portfolio adjustment and the flows that occur during the existence of political conflict between the asset holders and the government. He sees the first as a normal flow but considers the second category to be capital flight.

Rodriguez (1987) explained capital flight as a perverse expectation of domestic savings and foreign exchange that, given the shortage of both in low-income countries, has consequences that may severely hinder their potential for growth. He studied the consequences of capital flight from Latin American debtor countries and noted the first consequence was "...intensification of the shortage of foreign exchange and savings to finance investment in development projects. This weakens the growth of GNP, national income, and employment, and creates an inflationary bias if the counties that suffer from this export of national savings fail to scale back their investment efforts accordingly." His determinates of capital flight include overvaluation of the exchange rate, financial repression translating into negative real interest rates, fiscal deficits, tax evasion, risk factors, and external incentives provided by foreign banks and governments. He noted that capital flight exacerbates domestic income distribution inequalities because often only the rich have access to foreign markets, and this fact also weakens the internal market. He also notes another significant problem. Some countries allocate borrowed funds to productive investments, but many used them to actually finance additional capital flight, promoting "...a mechanism of regressive income redistribution, a structural disequilibrium in the public sector, and a process of transnationalization of domestic capital that dangerously hinder their development prospects."(1987)

Ketkar and Ketkar (1989) used a portfolio adjustment model to explain the factors influencing capital flight. They categorized the factors as push (related to characteristics of the so-called source countries for capital flight) including interest and inflation rates, the degree of currency overvaluation, and the environmental risks and pull factors such as differences between interest and inflation rates in the host country and the United States. They found push factors were significant in explaining capital flight from Argentina and Brazil. They found currency overvaluation and an inflation variable to be significant determinants of hot-money capital outflows from several Latin American countries. They concluded by saying: "maintaining positive real interest rates, low inflation rates, and competitive exchange rates would go a long way toward stemming or reversing capital

flight. Furthermore, mitigating other environmental uncertainties- those caused by frequent regime changes, for example-would help."

Khan and UL Haque (1985 and 1987) look at capital flight in terms of risk adjustment. They note that developing countries will borrow until risk-adjusted marginal returns are equalized. This activity creates a round trip cycle of capital going to and from developing countries. In their 1987 study, they conclude that capital flight primarily results from economic and political uncertainties in the home country.

Tanzi and Blejer (1982) looked at currency substitution and its impact on capital flight. They note an important fact that is somewhat basic but worth emphasis as a major contributor to capital flight. "When the expectation of domestic exchange rate devaluation increases, people will reduce their holdings of assets denominated in domestic currency, and will shift into assets denominated in foreign currency."

Ramirez-Rojas (1986) said currency substitution arises from "domestic macroeconomic imbalances which have resulted in high and variable inflation rates; and in the technological advances in communication and financial management, which make it possible to transfer funds at low costs." Such factors are undeniably a concern for Turkey.

Alesina and Tabellini (1989) say country risk is a primary reason for the over-accumulation of public debt and private capital flight. Using a general equilibrium model that alternates two government types with conflicting distributional goals, they find uncertainty over the fiscal policies of future governments generates capital flight and limits domestic investment. "The uncertainty about which group will be in control in the future generates the 'political risk' which in turn influences the current economic decisions of private agents and of the government."

CHAPTER 3

THE TURKISH ECONOMIC SETTING

Over the past 30 years, the Turkish economy has seen major changes, moving away from a system that emphasized state intervention and controls toward a more open economy with increasingly free flows of capital. But the country is by no means an entirely open market. Government controls and government-owed State Economic Enterprises retain a huge role in the economy. Still, the many changes make the period 1970-1995 an extremely interesting and relevant timeframe to look for evidence and the determinants of capital flows and more specifically, capital flight.

Ataturk created the modern Turkish nation in the1920's and 30s. As in many other fields, he and his advisors broke from the country's economic past. They developed a system of centralized economic planning called Etatism to advance the economy in the face of the collapse of the Ottoman Empire, the tremendous economic and social upheaval resulting from the implementation of the treaties ending World War One and the subsequent Turkish-Greek Conflict, Turkey's internal problems, and a global depression. A key element of Etatism is the notion that the public sector assumes leadership in economic life until or unless the private sector is able to do so. (Uyar, 1996) At its 1931 Congress, the ruling Republican People's Party adopted Etatism as its official economic policy. In practice Etatism entailed state industrial planning, creation of public industries, and comprehensive tariff barriers to force import-substitution. Etatism had a key, though gradually shrinking role in Turkey's development strategy until the late 70s. And it continues to have a significant impact to this day, particularly through the major impact of SEE deficits. (Mohamedi, 1996).

Successive governments of the late 50's and 60's flirted with other economic policies but fundamentally continued pursuing Etatism principles. Government controls and the very nature of the somewhat self-sufficient import-substitution economy kept private capital

flows relatively small. The result was an unsustainable rising burden of inflation, import shortages, public debt, balance of payments problems, high inflation, high unemployment, increasing disparity in the distributions of income and wealth, and chronic budget deficits. Repressive political measures were directed against the political opposition that developed in response to the economic turmoil and other concerns. In the late fifties, the ruling Democratic Party even increased economic intervention through price and exchange rate controls and regulatory measures. But this approach threatened the interests of key economic groups. The resulting power struggle fractured the political base of the Democratic Party and paralyzed the government. Political demonstrations and violence also increased. In May 1960 the Democratic Party government was overthrown by the military and the party was eventually forced to disband entirely. The military government devalued the Turkish Lira, abolished export premiums and embarked on an even stronger policy of import substitution-driven industrialization. The regime further increased the importance of central economic planning through establishment of a State Planning Organization and five-year economic plans. In the mid 1960's, import substitution was entrenched as an official state policy. A tariff wall protected domestic industry from competition. Cheap state credit, limited export subsidies and the overvalued lira spurred strong growth in domestic industries, but only at the expense of large public sector losses and constrained deficit financing. (Balazs, 1990) Economic performance did improve significantly from the previous decade—albeit in conjunction with, and certainly helped by huge improvements in the world and neighboring European economies. Turkish emigration to those surging economies and the resulting worker's foreign currency remittances back to their homeland certainly helped the national economy advance.

The outlook for the Turkish economy in the early 70's was optimistic. The Justice Party won a majority of seats in the 1969 parliamentary elections—the only time between 1961 and 1983 that a single Turkish party held a parliamentary majority. During the summer of 1970 the Justice Party attempted to use its strength to push through a relatively ambitious stabilization package (Uyar, 1996) It devalued the TL 66% to 14 per dollar and

attempted to give the Central Bank more autonomy (Onis, 1993). The latter effort, like all too many Turkish reforms, had little long-term result. Taxes, the discount rate, deposit interest rates and bank finance charges rose. (Uyar, 1996) But government fiscal policy moved the wrong direction. In 1970 the government granted huge pay-raises to civil servants and SEE's saw a dramatic rise in deficits due to increasing wages and a rise in investment expenditures (Onis, 1993). Until then, Government revenues had kept pace with expenditures—keeping the government budget deficit in a fairly stable proportion to GDP--averaging 5.3 per cent from 1963-69. The inflation rate as measured by the CPI rose from 7 % in 1970 to 16 % in 1971, primarily due to the dramatic increase in personal income coming at the same time currency devaluation spurred foreign demand for Turkish exports. Eventually devaluation helped boost Turkey's foreign currency reserves through increased remittances and exports. (Uyar, 1996). These increased reserves enabled the coalition governments to meet the first international oil crisis of 1973-74 without an immediate significant impact on the general economy. But the stabilization package also threatened some members of ruling party, shaking government unity. The governing Justice Party started backing away from key aspects of its program almost immediately, street violence continued, and the military stepped in to force the government's resignation. (Uyar, 1996) The fuel crisis did cause Turkey to increase borrowing and deplete its foreign currency reserves since the government shied away from the alternative: spending cuts and lower economic growth. The Cyprus crisis peaked in 1974 and the heavy expenditures required support military operations and weapons procurement increased government difficulties. As another complicating factor, there were five elected civilian governments during the 1973-79 period. All were relatively weak coalitions. None had the strength or the tenure in office required for structural transformation of the economy through institutional, fiscal and monetary measures. (Uyar, 1996)

The major debt problems of the late seventies resulted in a debt payment crisis. It took several years of intricate negotiations with creditors and a long series of rescheduling agreements to even marginally resolve. (Celasun and Rodrik, 1989). Growth suffered

heavily, with two years of real contraction at the end of the decade. Income distribution began to turn against urban and rural workers. The early years of the decade had been a time of great optimism, as the perennial debt/foreign exchange shortfall appeared to have relaxed thanks largely to a rapid rise in workers' remittances. But there were two major problems. The first was an explosive rise in world oil prices. Second, the government succumbed to all of the usual policy pitfalls: price distortions including overvalued exchange rates, large public sector deficits, and an accommodating monetary stance. These helped to swing the current account sharply into deficit, moving it from a surplus of the Lira equivalent of 660 million dollars to a deficit of 3140 million dollars. By 1977, foreign currency reserves had been severely depleted and the Lira once again was overvalued. The current deficits were financed by short-term external borrowing.
In May 1975, the Turkish Government allowed non-residents as well as residents to have accounts in Turkish Banks, earning a rate 1.75% higher than the equivalent Euromarket rates. The Central Bank also guaranteed the principal and interest payments against exchange rate changes. This naturally drew foreign money into in the country. Between '75 and '77 Turkey relied on this intrinsically destabilizing form of foreign borrowing. Called the convertible Turkish Lira deposit (CTLD) scheme, its exchange guarantee acted as a subsidy on foreign borrowing by the private sector, as the domestic currency was already perceived to be overvalued by the beginning of '75. More important, it rendered the implicit subsidy an increasing function of the expected depreciation of the Turkish lira. The resulting borrowing was heavily biased toward to 'strong' currencies (predominantly the Deutsche Mark and the Swiss Franc) with low nominal interest rates. As borrowing increased and the current account deteriorated there was increased anticipation of further depreciation of the domestic currency. That in turn raised the implicit subsidy on foreign borrowing, given rise to even greater incentives to borrow. Hence the CTLD scheme produced an ever-expanding spiral of over-borrowing by the private sector.

The second oil price increase in 78-80 also hit Turkey very hard. Her exports and foreign exchange earnings declined because of the impact of the oil crisis on Turkey's Western

trading partners. At the same time, her import bill rose as prices of imported finished and semi-finished products increased. (Uyar, 1996). Other factors contributed to inflationary pressures: union demands for higher wages to keep up with inflation; credit expansion encouraged by an interest rate policy which by the end of the decade resulted in a negative real rate of 35-40%; overspending by the government; and the monetization of the deficit.

After 1977 there was also a significant increase in government expenditures. Defense spending rose drastically as a result of the continuing military operations in Cyprus, a potential larger conflict with Greece, Kurdish separatism, and other security concerns. SEE deficits continued to rise and more pay raises were given to public employees. Political instability was heightened by the simultaneous and inter-related rise of the severe economic and financial crisis resulting from rampant inflation, declining terms of trade, economic stagnation and Turkey's deepening debt to inter-governmental organizations and foreign banks (Sayari, 1992) The government tried to keep prices in line through a price-control board and maintaining an artificially high value for the Turkish Lira—but the result was a growing black market for goods and currency while shop shelves grew increasingly bare. (Zurcher, 1994)

The high inflation and other economic failures caused the population to lose confidence in the government and also contributed to increasingly wide disparities in income. The overwhelming sense of frustration and despair associated with these conditions was reflected in continued street violence and conditions approaching anarchy. Starting around 1977, foreign creditors became increasingly concerned about Turkey's high external debt and the amount of foreign funds flowing to Turkey steadily decreased. Also output growth in industrial sectors fell, and GDP growth slowed down. The reduction in external funding also contributed to the foreign exchange shortage and forced the government to reduce its expenditures and resulting deficit. The government still had a need to borrow to cover the currency shortage and in the absence of other signed a stand-by agreement with IMF in March 78 for US$45M. (Onis & Riedel, 1993) However the

IMF was not satisfied with Turkey's economic policies and didn't release the second and third traunches. In 1979 Turkey signed a second agreement for US$300M. But that was also blocked until a new government came to power in January 1980.

By 1980 unemployment surpassed 15 %, inflation was running above 100 percent, industrial capacity utilization was below 50 % and the Turkish government was unable to meet foreign interest payments. No party won a majority in the 1979 elections. But the Justice Party, led by Suleyman Demirel, eventually formed a government with the help of two smaller parties. The deteriorating situation essentially forced the government to produce a radical stabilization package. Unemployment was rising, shortages were common, and labor unrest had reached crisis proportions. Even worse, political violence was rampant and spreading throughout the country. Six years of external shocks, macroeconomic mismanagement and severe political/social instability resulted in this crisis situation. (Baysan, 1990).

The government response was a comprehensive stabilization package in January 1980, aimed at massively restructuring the economy. The main thrust of the program was the implementation of export oriented growth strategies. The proposed measures aimed at controlling inflation, improving the distribution of income, opening the economy to international competition, and replacing the import substitution approach to growth and development with an export oriented policy. It also aimed to end the shortages of goods especially basic consumer goods, increase employment, increase foreign exchange reserves, and improve the efficiency of SEEs.

The specific policy objectives in the stabilization package were:
-Adoption of a realistic, flexible exchange rate policy, including a major TL devaluation
-More effective export promotion measures to encourage rapid export-growth
-Gradual import liberalization, including the dismantling of quantitative restrictions and rationalization of the tariff structure
-Improved external debt management and information systems

-Tight monetary control policy and discipline to fight inflation
-Deregulation of interest rates to encourage private savings
-Rationalization of the public investment program
-A greater role for the private sector by encouraging privatization and limiting the sectors dominated by public enterprises
-Reforming SEE structure and pricing to reduce their burden on the budget and improve efficiency
-Steps to improve institutional efficiency in key sectors. (Baysan, 1990)
-Increasing tax rates to reduce public sector borrowing and the government deficit

But with Turkey's economy already in bad shape, conditions continued to worsen as the Demirel government implemented the stabilization package. A lack of foreign reserves and a basic slow-down in economic activity resulted in shortages of consumer and industrial goods, though the economic program did reduce the deficit. Prolonged strikes, continuing violence, widespread anarchy, general public discontent with the economy, and a fear of Islamic revivalism (Iran's Islamic revolution occurred in 1979) paved the way for the military coup of September 1980. (Uyar, 1996) The Military endorsed the stabilization package and economic liberalization indirectly while also restructuring the political system, claiming it was "saving democracy" from the politicians. (Zurcher, 1994).

The US government and international finance organizations like the IMF and World Bank supported these measures and the subsequent political order achieved by the armed forces. The military delegated the running of the new economic strategy to Turgut Ozal, the Under Secretary of the State Planning Organization. In this role, and later as Prime Minister, Ozal had a mission to thoroughly integrate Turkey into the world capitalist market. As a result, the entire decade of the eighties was a period of economic restructuring. (Eralp, 1993). After 1980 interest rates came up and in 1981 they were above the inflation rate. As seen in table 3-3 the interest rates jumped from 8% in 1980 to 26.5% in 1981. This helped to reduce the circulation of money in the economy during

81-82 and inflation came down significantly dropping from 110% to 36% from 1980 to 1981. This confirms the negative capital flight numbers during these years.

In May 1981, the military dominated government allowed market forces to increasingly determine the price of the Lira with its value adjusted daily. The government eliminated interest rate limits and deregulated the financial markets. But the market deregulation was not orderly. Speculative frenzy and greed over-rode caution and discretion and the fledgling security markets crashed in mid-1982 (Uyar, 1996). One would expect this collapse and resulting disintegration of investor confidence would favor capital flight in 1982. Contributing to Turkey's problems was the early 1980s recession in the United States. As Wijnbergen and his co-authors note, this slump and the ensuing rise of interest rates and collapse of commodity prices triggered the debt crisis that has dominated macroeconomics in Turkey and other developing countries ever since. The international financial and academic communities initially focused on their effects on Latin America, but other regions have not escaped the problems caused by these adverse shifts in the world economy.

Buffeted by allegations of scandal and other pressures, Ozal resigned in 1982, established a new political organization called The Motherland Party (MP), and led it to victory in November 1983's parliamentary elections. Ozal became Prime Minister and resumed his earlier economic reforms. He opened up the county to foreign investors by allowing them to buy real estate, invest in the stock market, open accounts in Turkish commercial banks, and establish branches of foreign companies in Turkey. Restrictions on the repatriation of profits, dividends and the proceeds of sales by foreigners doing business in Turkey were abolished. The bureaucratic formalities regarding exports were simplified; exports were encouraged by subsidizing investment in export oriented endeavors. Such measures were present before 1980, but their smaller scale and the overvaluation of the Turkish lira limited their impact. From 1983-87 exports grew substantially, increasing Turkey's economic growth rate. Export incentives begun or expanded in the 80's include export tax rebates, export credits, exemptions from taxes and duties, foreign exchange retention,

foreign exchange allocation, duty-free importation of inputs, exemption from fund charges, corporate tax reductions for exports, and direct subsidies through the Support and Price Stabilization Fund (SPSF). During 1986 and 1987, abuses of the SPSF became evident with overinvoicing of exports and reporting of non-existent exports. (Aktan, 1996) During 80-87 total exports grew at an average annual rate of 22.3 percent, while industrial exports increased in current dollars at an average annual rate of 38.2 percent. The internal factors important for this growth of exports include increased export incentives, depressed domestic demand, exchange rate policy, and the Government's strong commitment to exports. Turkish contractors won large bids in Middle East, reaching contract volumes of over twenty billion dollars by the mid-80s. (Balkir, 1993)

The improvement of Turkish macroeconomic performance lasted until the end of 1985, but public sector deficits helped cause inflation to resume its rise in 1983 and it stayed at about an annual 40% rate during 1982-1987. Starting in 1986, a number of factors including budget deficits, expansionary monetary policy, and SEE price increases caused the rate of inflation to increase again, reaching 73 percent in late 88. As this acceleration of prices became evident in late 1987, a series of demand-tightening measures were taken. Ozal's party won the national elections again in November 1987, but its parliamentary majority shrank, costing it much of the dominance and power to push through policy changes it enjoyed earlier in the 1980s. Ozal's government had relaxed its financial discipline in the run-up to the elections. And by late 1987 negative real interest rates and other factors caused new expectations of currency devaluation. The premium over the official rate of exchange in the parallel market had increased to about 25 percent. The result was an increasing incentive to flee the Lira and hold foreign currency. Bank deposits of foreign currency rose to almost a quarter of overall bank deposits from under 9 per cent in 1984. (Onis, 1993) Inflationary expectations accelerated the shift out of local currency and real assets. As seen on table 4 capital flight numbers are high during 1985-86 and 1987.

This difficult situation pushed the government to announce a major package of economic measures on February 4th, 1988. As part of the measures, the Government adjusted tax rebates and the support and price stabilization fund subsidy systems to encourage faster repatriation of export earnings and tighten the money supply. The economic program was designed to reduce both external and internal imbalances and rising debt. (Onis, 1993) The government adopted restrictive monetary and fiscal policies, raising bank reserve and liquidity ratios specifically to prevent capital flight. These measures produced the expected results and the demand for Turkish Lira deposits increased. Also, the spread between official and black market exchange rates was almost eliminated by April 1988. But as the economy moved into 1989, inflation remained high and exports declined in volume. Interest rates on Lira deposits significantly increased, interest earnings on foreign deposits were made subject to a 5 percent withholding tax, and interest paid to banks on foreign exchange reserve requirements was reduced. Inflation reached 70 per cent in 1988 and 1989 but exports still increased--helped in large part to extensive Turkish exports to both Iran and Iraq during their protracted war.

The real return on risk free Government bonds (deflated by the consumer price index), which was negative for all maturities during most of 1990, turned out extraordinarily high in 1992 and 1993. For a maturity of one year, real bond rates were above 13 percent during the first half of 1993, suggesting the prevalence of very tight monetary conditions.

Turkey's adherence to international sanctions against Iraq after Baghdad invaded Kuwait cost Ankara billions of dollars, losses that were only partially made up by Japan, Saudi Arabia and other grateful allies. In 1994 the economy again hit a crisis level as the government paid for earlier large public sector wages and transfers to SEE's by drastically increasing foreign borrowing. The pay increases also raised domestic consumer demand helping inflation reach 73 percent in mid 1993. Government austerity packages intended to resolve the crisis and meet IMF requirements in turn contributed to the ruling party's election losses in nation-wide local elections (that and widespread disgust with government corruption in the face of such general economic problems). In

1994, Turkey faced a new balance of payments crisis in large part due to the decline of exports to Iran and Iraq. Mounting concern in economic policy was reflected in an accelerated "dollarization" of the economy as residents switched domestic assets into foreign currency deposits to protect their investments. Following the underlying instability and drastic fluctuations in the financial markets since the beginning of 1994, the government's April 5 Economic Measures Implementation Plan aimed at restoring confidence in the Turkish Lira. Commercial Banks increased their deposit interest rates to unprecedented levels in order to attract Lira deposits. By the end of 1994 about 50 percent of the total deposit base was held in the form of foreign-currency deposits, up from one percent in 1993. In December 1995 the Islamic Refah party won 21.5 percent of the vote in general elections, enough to cut a deal with Ciller's DYP and make their own chief, Erbakan the new Prime Minister. But the result brought forward a full new range of Islamist versus secularist tensions to distract the government from meaningful economic moves.

Government policy shifts and a huge growth in exports has not prevented an ever-growing burden of debt from remaining a primary concern for every Turkish government. The impact of this mounting problem is an important concern for anyone involved with any aspect of the Turkish economy. Macroeconomic policy in Turkey has not been aimed, as it is in developed countries, at the traditional macroeconomic targets of price stability and full employment. Instead monetary and fiscal policies have followed the dictates of the government's overriding goals with regard to growth and industrialization. But in pursuing these goals, government revenues have invariably fallen short of expenditures. Successive governments were therefore forced to borrow either from abroad or from the Central Bank. The outcome has been a continuing accumulation of external debt and rising inflation. (Onis, 1993)

A strategy to deal with external debt and the formulation of internal policies that allow sustainable output growth within the limits of creditworthiness and macroeconomic stability are at the forefront of policymaking in most developing countries. (Wijnbergen,

1992) It's certainly the case for Turkey. But to accomplish these reasonable goals, Onis (1993) notes: "Economic crises have been the force for change in Turkey." Import substitution was formally adopted in the early 1960s in response to earlier economic failures. When this strategy failed in turn, the country confronted another major economic and political crisis in the late 70s, the import-substitution policies were replaced by a new plan which (at least on paper) advocated free trade, flexible prices, and privatization of state enterprises. The transition from an essentially fixed price regime to a flexible price regime theoretically reduced the government's role as a manager of private economic activity. (Onis, 1993). But the government actually retained a dominant role. What did change was the old policy of fixing key relative prices. In place of fixed nominal exchange rates and interest rate ceilings, the government set real exchange rate and real interest rate targets so as to maintain international competitiveness, stimulate private savings, and prevent a flight from domestic currency. The outcome, given the persistently continuing high levels of government spending and public sector borrowing, was high and variable inflation, large movements in nominal exchange rates and interest rates and volatility in real exchange rates. Private investment was discouraged through both direct crowding out and economic uncertainty. (Onis, 1993) Such concerns with the results of government policy remain valid to this day despite changes and advances on numerous fronts.

The defining economic event during the 1971-95 period was the implementation of the early 80's economic reforms. The growth in export-oriented industry and loosening of monetary controls resulted in an influx of foreign capital. But increasing imports and negative real domestic interest rates had a countervailing effect, pushing residents to convert Lira holdings into foreign currency-denominated assets. During the entire period, worker's remittances continued to be a major capital inflow, though their total amount varied considerably according to the economic health of their host nations and Turkey. Based on a review of the Turkish economic record, I would expect to see some evidence of capital flight in the 1977-80 period of economic and social unrest, a reversal of the flows in 1981 through 1984, some slight emergence of flight in the late 80's and

increasing flows into the country during the most recent periods (1995-96) as equity markets become more significant. The following chapters will analyze what actually happened from an econometric perspective.

CHAPTER 4

DATA and MEASUREMENTS of CAPITAL FLIGHT

As we saw in Chapter Two, there are many different approaches to defining and measuring capital flight. In order to examine the ramifications and utility of the various possible choices, I have calculated capital flight for Turkey during the period 1971 to 1995 using nine different methods: the basic World Bank approach; the variations of the World Bank approach favored by Claessens, Morgan Guaranty, and Cline; the Dooley method, three variations of the Hot Money approach closely associated with Cuddington, and figures developed from apparent trade misinvoicing. The results are at Table 4.

Method I: World Bank Residual Approach

The World Bank method (1985) consists of the following equation using numbers from the World Bank's World Debt Tables: Table 4-1.

Capital Flight = Change in External Debt + Net Foreign Direct Investment
+ Current Account Balance + Change in Reserves

Capital Flight is accounted for the difference of inflows and the outflows. Inflows are increase in debt and net foreign direct investment in the country. Outflows are current account deficit and increase in reserves. (The World Development Report, 1985, page 64, line 17).

Claessens

Claessens, et al. (1993,1997) uses the World Bank method but adjusts for exchange rate impacts on the debt stocks and adds corporate equities investments.

Adjusted Debt Stock = Total External Debt – Exchange Rate Impact

One difficulty in the using change in debt stock data instead of using flow data is that it will include changes in the dollar value of the non-dollar figures rising from exchange rate changes. Claessens eliminates this difficulty by subtracting the exchange rate valuation effect computed by the World Bank from the change in stock data from the capital flight measure. Otherwise when the dollar depreciates versus other currencies it results in a higher non-dollar denominated debt when expressed in dollars.

Claessens Capital Flight = Change in Adjusted Debt Stock + Net Foreign Direct Investment + Current Account Balance + Change in Reserves + Corporate Equity Investments

Claessens also included net acquisition of corporate equities because he notes flows of corporate equities represent a claim on a country's resources similar to foreign direct investment (1993). To account for this figure, I use the equity securities line of portfolio investment assets in the Balance of Payments Statistics Yearbook. It is a part of foreign direct investment and represents a claim on a country's resources. As we see in the data there is a big jump from 1994 to 1995 which indicated increased investment in the Turkish stock market, in a period that saw a massive upswing in foreign investment in emerging markets throughout the globe.

The Claessens method varies from the basic World Bank approach only by adjusting for the effects of cross currency exchange rate fluctuations and corporate equity investment transactions. As a result, capital flight figures produced for Turkey by the two methods

are similar during the 1970s but diverge somewhat during the rest of the period studied. Review of the exchange rate impact column in Table 4-2A shows changes in the dollar's value against currencies other than the Lira do have a significant effect on Turkish debt stock figures, a logical but important reminder that Turkish debt is denominated in a range of foreign currencies and can't be considered only in the vacuum of the Lira-Dollar relationship. The impact of foreign purchases of Turkish equities has also apparently become an important recent source of foreign currency. The growth of US international mutual funds chasing opportunities in emerging markets seems to have funded a sizable chunk of capital flight in 1995. As later years' figures become available this potential trend is worth future analysis even though emerging markets are currently a much smaller part of U.S. foreign equity investments given recent poor returns.

Morgan Guaranty

Capital Flight Morgan = Claessens' Capital Flight +
Change in Foreign Assets held by the Banks.

Morgan Guaranty uses the same formula as the World Bank and Claessens but subtracts the change in foreign assets held by the banking system from the their results. Change in foreign assets held by the banks has a negative sign in Balance of Payments Yearbook, it is subtracted from the capital flight figures by Claessens.

It believes that such assets remaining under the control of the banking system are not part of capital flight. As a result, its numbers are consistently smaller than the World Bank's and Claessens' capital flight figures. Since the banking system foreign assets figures include those held by both public and private banks the process would seem to underestimate capital flight. The effect in figures for Turkey is not significant until 1984 and becomes an even bigger factor after 1991. The significant changes in such foreign assets in the late 1980s and 1990s came at a time Turkish banking and currency

regulations were increasingly allowing residents to freely convert Lira and to hold foreign currency accounts.

Cline

Cline Capital Flight = Capital Flight (Morgan) – Travel (Credit) –
Reinvested FDI Income (Abroad and Domestically) –
Other Investment Income (Credit)

Cline takes Morgan's results but also subtracts travel income, reinvested earnings on foreign direct investments (abroad and domestically), and other investment income; not considering them part of capital flight. Most significant in Turkey's case is his feeling tourism revenues should be eliminated. Tourism has grown to be a major source of foreign currency for Turkey and not considering where it ends up means Cline ends up with drastically smaller figures for capital flight in the late 1980s and 1990s than the other residual procedures. He argues that these figures are beyond the reach of monetary authorities. A claim that is not necessarily true but in any event it would seem tourism is still a business with capital investment requirements and important revenue flows. Some resident capital outflow is certainly financed by this tourism foreign currency inflow and it definitely has to go somewhere. I see no reason not to account for it.

Method II - Dooley's method

Dooley (1986,1988) measures the stock of external claims by summing identified capital flows in the balance of payments accounts and making two adjustments to capture unreported capital flows. He adds the errors and omission line from balance of payments figures and also a figure for the unrecorded stock of external claims. The resulting equation is:

Capital Flight = Change in Debt - Capital Account - Net Errors and Omissions + Increase in Reserves + Net Foreign Direct Investment + Equity Investments – Change in stock of reported assets (Derived from investment income/US T-bill rate. Table 4-5A).

Claessens, et al (1993,1997) demonstrate Dooley's method and the World Bank residual method differ in terms of underlying economic approach but in practice are linked closely together because they are based on opposite sides of the balance of payments equation. The Dooley method does make the additional adjustment of subtracting the capitalized value of reported earnings from the stock of capital flight." (Claessens, 1997) Any real difference between the figures for the two methods must arise from this component. This number is developed by comparing World Bank data on the stock of external debt and external borrowing reported in the balance of payments accounts. The World Bank data are generally larger than the BOPY data, suggesting that some of the increase in external debt goes unrecorded in the balance of payments accounts. In the cases where a discrepancy arises, the unrecorded increase in external liabilities must correspond to an underestimate of balancing transactions, such as an unrecorded increase in external assets. Dooley assumes that all of the underestimated balancing transactions consist of private sector acquisition of foreign assets. He then computes a market interest rate for each country's assets and calculates the stock of external assets that would give rise to the level of investment income recorded in the balance of payments accounts at this market interest rate. The difference between the two measures of external assets is his measure of capital flight.

Dooley's subtraction of the capitalized value of reported earnings from the stock of capital flight is based on his definition of capital flight as only those capital outflows designed to place assets beyond the control of domestic authorities. As would be expected, results using his method generally produce significantly lower figures for capital flight. Of course it is often impossible to truly differentiate between proper and improper flows. Dooley's use of capitalized reported earnings is a valiant effort, but the

figures produced are suspect and the result of an almost arbitrarily selected and fluctuating interest rate—US T-bills, when investors from Turkey would send their funds a host of different directions at a myriad of widely different yields.

Method III - Cuddington's Method

Hot Money 1 CF= -[Errors and Omissions]

Hot Money 2 CF= -[Errors and Omissions + Outflow of Other Short Term Capital of Other Sectors]

Hot Money 3 CF= -[Errors and Omissions + Outflow of Other Short Term Capital of Other Sectors + Outflow of Equity Securities] (1986, Page 7, line 17 through 24).

Cuddington only considers the short-term flows (which he calls "hot money") by the non-bank private sector. He developed three different capital flight measures depending on the country he is studying. As one measure he uses the negative of the errors and omissions line in the IMF Balance of Payments Yearbook. For the second measure, Cuddington adds selected short-term capital movements depending on the specific country he is considering. The Cuddington Hot Money alternatives for Turkey present significantly lower figures for capital flight than other methods for almost the entire period. The primary exception is 1981-1983. Those years coincided with an increased Turkish reliance on short-term debt. Cuddington focuses on short-term capital flows, considering them as speculative outflows. But with increasingly mobile global markets and the aforementioned difficulty of separating "good" and "bad" capital flows, a focus on short-term movements illustrates the activity in this portion of the issue but doesn't provide the whole picture.

Method IV - Trade Misinvoicing Results

I use partner country international trade figures to produce results for capital flight arising from misinvoicing. In an approach used by Claessens, et al (1997) IMF Direction of Trade (IMF-DOT) data for the country concerned is compared with industrial countries' reported trade figures. To put imports as reported by the country and imports as reported by the world (exports by the country) on a comparable basis, it is necessary to employ the same accounting practice. Consequently free on board-basis (FOB) is used in place of cost-insurance-freight (CIF).

X_w ; Imports of the world from one particular country such as Turkey in my paper, as a partner country. (IMF Direction of Trade (DOT) line IMP-c.i.f.)

X_c; Exports as reported by the country FOB (IMF DOT-exports of country with world as a partner, line EXP-fob)

M_c; Imports as reported by the country CIF (IMF DOT-Imports of country with world as a partner, line IMP-c.i.f.)

M_w; Exports of the world as reported by the world FOB, (IMF DOT-imports of world with that country as partner, line EXP-fob)

CIFFOB factor: CIF to FOB ratio (IFS line..v..z.)

Export Misinvoicing = $(X_w / \text{CIFFOB factor}) - X_c$
Import Misinvoicing = $(M_c / \text{CIFFOB factor}) - M_w$

The positive sign will mean there is underinvoicing of exports and overinvoicing of imports. This indicates capital flight. Addition of import and export discrepancies will give the trade misinvoicing contribution to capital flight.

Using the trade misinvoicing method, we see that there was apparently overinvoicing of exports throughout the whole period. As noted earlier, several authors have mentioned misinvoicing, specifically the underinvoicing of exports, as a key indicator and measure of capital flight. The measure isn't very useful in Turkey's case because importers had tariff-related reasons to under-report their imports, especially in the seventies, and exporters had big incentives to over-report their exports throughout much of the period due to the prospect of government subsidies and tax breaks. This author has personal experience with trading firms, documenting and reporting imaginary exports to benefit from the large government subsidies. A share of the reported increase in exports after 1980 appears to have been the result of a statistical fiction as exporters claimed generous export subsidies. With the 1980 shift in government policy from import substitution to export promotion, domestic entrepreneurs appear to have changed their invoicing practices from mild underinvoicing of imports to substantial overinvoicing of exports.

Prior to 1980 heavy tariffs and regulations severely limited imports—as would be expected in an import-substitution economy. After 1980, tariffs and regulations were relaxed, generally making imports more feasible—though government policy continues to fluctuate wildly and favors raw material and intermediate good imports while maintaining major barriers to finished consumer and other goods. (Baysan, 1990). With increases in imports, came increased opportunities to over-invoice imports to support capital flight, but with significant tariffs and governmental policies still in place to discourage imports and loosening currency controls, such actions were probably insignificant. In any event, these factors indicate misinvoicing is not a meaningful method to measure capital flight for Turkey.

Significance of Capital Flight Measures

As seen in Table 4, the figures for capital flight vary significantly from method to method even within the related residual-based procedures. I believe the Claessens' method

provides the most accurate measurement of capital flight. However, my analysis below also examines the performance of the model I develop against the other major methods.

DATA SOURCES

The data I used for all the calculations are from the International Financial Statistics (IFS) and the Balance of Payments Statistics Yearbook of IMF. External Debt Statistics are from World Bank, World Debt Tables. These include total debt stock; public and publicly guaranteed debt, short term, long term and use of IMF credit. World Debt Tables changed the name to Global Development Finance after 1996.

BMI stands for Black Market Incentives and the data is obtained from the World Currency Yearbook. It is the difference between Black Market Rate at the end of the year and official exchange rates.

The data from International Financial Statistics are (IFS):
Short-term foreign assets held by the banks, line 7a.d.
Interest rates for Turkey (INT) line 601.
Consumer Price Index (CPI Base Year is 1990=100) line 64.
Government Deficit line 80,TL value divided by rf exchange rate found US$ value.
US Treasury Bill Rate, line 60c.
Exchange rates (ae= end of period value, rf= period average).
Change in deposit money banks foreign assets, line 7a.d. (Morgan calculations).
FOB-CIF Conversion Factor, ..V..Z. These rage between 5 to 18 percent for different countries.

IMF, Balance of Payments Statistics Yearbook (BOPY) Data:
Travel & Tourism line 9,
Reinvested Earnings (Credit and Debit) line 11 and 12,
Investment Income private line 19,

Other Short Term Capital of Other Sectors line 93-97,

Increase in Reserves (98-111),

Foreign Direct Investment,

Workers Remittances,

Current Account, Capital Account and Net Errors and Omissions.

Trade data are from the IMF Direction of Trade Statistics.

CHAPTER 5

EMPRICAL ANALYSIS OF CAPITAL FLIGHT

As summarized in Chapter 2, the body of literature points to a number of economic variables being significant determinants of capital flight. These include high inflation, overvalued exchange rates, domestic interest rates, interest rates elsewhere in the world such as the US Treasury Bill Rate, the differential between such domestic and foreign rates, the existence and structure of capital controls, and excessive fiscal deficit. These basic variables have been represented through a wide variety of figures in the relevant studies.

In the course of my analysis I looked at the significance of domestic inflation measured on a percentage change in the Consumer Price Index (CPI), annual change in CPI, and lagged effects. For exchange rate fluctuations I considered the difference between black market rates and official rates, a percentage weighting of this difference, the cumulative change in official rates, the annual change in official rates and lagged effects. To look at overvalued exchange rates, I took the ratio of difference between the Black Market Rate and the official exchange rate to the official exchange rate for dollars. I called that Black Market Incentives. In looking at the effect of domestic returns I looked at overall interest rates, real interest rates and lagged effects. For foreign returns, I used USTB rates, German government bond yields, and lagged effects in a number of regressions. Political risk was modeled as a dummy variable measuring annual risk as a 0 or a 1.

With the existing literature to guide me and an initial econometric evaluation of numerous potential models and variables, I developed the following hypothetical model for capital flight from Turkey: CF=F (capital controls, interest rate differentials, deficit to GNP ratio, black market incentives).

The dependent variable is capital flight. As shown in Chapter 4 there are number of different measures of capital flight. I strongly prefer economic rationale behind the Claessens' method but I compare the econometric results across the World Bank, Claessens, Morgan, Cline, Dooley and Cuddington measurements to examine their relationships and value.

Capital controls is my first explanatory variable. Such controls significantly affect monetary movements in and out of a country. Capital controls is taken as a dummy variable with 0 and 1 values. In the case of Turkey from 1970 through the early 1980s there were firm capital controls in place and I gave each year in that period a 1. As capital controls were increasingly relaxed in the eighties, I gave 1984 and every year after it a 0. I expect to see a negative relationship between capital flight and capital controls.

A risk averse investor will diversify his/her portfolio depending on the returns and risk. Turkish investors had to hedge themselves against inflation by buying foreign currency throughout the time period I am studying. The overvaluation of the domestic currency is one of the most significant variables in almost all studies of capital. Black market rates in Turkey are a signal of overvaluation and expected depreciation. There were significant black market differentials present even after the relaxing of financial controls, indicating that some barriers to totally free exchange still existed. As a measure of exchange rate overvaluation I use (Black Market Rate (BMR)-Official Exchange Rate (OER))/OER. I expect a positive relationship with flight.

A large government deficit is an indicator of current and potential future fiscal problems. The Turkish Government runs deficits every year, leading investors to fear future devaluations, creating more incentives to buy foreign currency. As a result, I chose Deficit/GNP ratio (DFGNP) as an explanatory variable. The expected relationship is positive.

Many studies have used the differential in domestic and foreign interest rates and took the US T-Bill rate as a proxy for foreign returns that might draw capital out of a country. Most studies are dedicated or heavily weighted toward Latin American Capital flight—a region that would be naturally most heavily influenced by US interest rates. It is important to remember other regions. Countries can and are more heavily influenced by other rates, even in the face of an increasing globalization of capital markets. In the Turkish case I expect German government bond rates to be a bigger factor, given the large Turkish guest worker presence in Germany and Turkey's geographic proximity to European markets. RINTD is the differential in the Turkish real interest rates (Interest rates-inflation = RINT) and the German government real bond rate (Bond rate-inflation = RINTG) which is adjusted with the inflation by taking the real interest rates in Turkey and Germany. I expect a negative relationship between this interest rate differential and the dependent variable, capital flight.

The regression equation is:
CF/GNP=F (CC, RINTD, DFGNP, BMIR)
CC= Capital Controls
RINTD= Real Interest rate differential
DFGNP= Deficit/GNP
BMIR= Black Market Incentives; Overvaluation of Exchange Rate

As detailed in Chapter 4, the definitions for capital flight that I used a dependent variable are as follows:

Claessens' Capital Flight

Capital Flight = Change in Adjusted Debt Stock + Net Foreign Direct Investment
+ Current Account Balance + Increase in Reserves
+ Corporate Equity Investments

Capital Flight is accounted for the difference of inflows and the outflows. Inflows are increase in debt and net foreign direct investment in the country and inflow of foreign

money into the equity securities. Outflows are current account deficit and increase in reserves.

Morgan Guaranty

Capital Flight = Claessens' Capital Flight + Change in Foreign Assets held by the banks.

Morgan Guaranty uses the same formula as the World Bank and Claessens but subtracts the change in foreign assets held by the banking system from their results.

Cline

Capital Flight = Capital Flight (Morgan) - Travel (Credit) -
Reinvested FDI Income - Other Investment Income (Credit)

Cline takes Morgan's results but also subtracts travel income, reinvested earnings on foreign direct investments, and other investment income.

Dooley

Capital Flight = Change in Debt - Capital Account - Net Errors and Omissions +
Increase in Reserves + Net Foreign Direct Investment + Equity
Investments - Change in stock of reported assets

The difference of Dooley method from Claessens and other methods, he takes Capital Account and Net Errors and Omissions instead of Current Account. And also subtracts the reported earnings from his capital flight calculations.

Cuddington

Capital Flight = -[Net Errors and Omissions]

Cuddington only considers the short-term capital flows and he uses the negative of the errors and omissions line in the IMF Balance of Payments Yearbook.

Results:

1. ADF test statistics indicates that all equations except for the Cuddington one are cointegrated at the 5% level. This suggests that the statistical inferences are valid.
2. All variables CC, RINTD, DFGNP and BMIR enter the regression equations with the expected signs.
3. All variables except for the Real Interest Rates Differential (RINTD) are significant in every model except for Cuddington. The results for the other four models are very similar.

Table 1: CF/GNP=F (CC, RINTD, DFGNP, BMIR)
RINTD= (Turkish interest rates-Inflation) - German Bond Rates

Table 2: CF/GNP=F (CC, INTD, DFGNP, BMIR)
INTD= Turkish interest rates-German Bond Rates

Capital controls and the interest rate differential prove to have a significant negative correlation with capital flight. DFGNP is significant in both sets of equation (Table 1 and Table 2) but not as strong as in the first set of equations (Table 1). The significance of BMIR has improved in the second set of regressions and significant at 1% level in the both regressions.

For the Modified Claessens Model, the negative correlation of capital controls and capital flight shows that the presence of the capital control decreases the CF/GNP ratio by 0.06 units. A similar correlation occurs across the other models except for Cuddington where it has less effect and appears to be insignificant. When we replaced the nominal interest rates differentials with the real interest rate differentials (Table 2) the significance of capital controls improves across the board.

Indeed, the results of regressions run on these models show that real interest rate differentials do not appear to be a significant factor in determining capital flight from Turkey in any of the models except Cuddington with a t statistic of 4.58 (Table 1). Inserting nominal interest rate differentials into the models instead produces models that does a much better job of explaining Turkish flight (Table 2). Both the explanatory power of the models and their ADF statistics improve in this second set of models, again with the exception of Cuddington. The poor t statistic of 0.14 for RINTD in Morgan improves to 2.63 for INTD. 0.33 improves to 2.74 in Claessens, 0.15 improves to 3.40 in Cline and 1.32 improves to 2.98 in Dooley. In Claessens a one unit decrease in nominal interest rate differentials will decrease the capital flight by 0.0005 unit. The amount of decrease on capital flight is very similar across the other models.

DFGNP has a significant relationship with the dependent variable in both Table 1 and Table 2, except in Cuddington model in either Tables. In Table 1 DFGNP appears to have a stronger effect on CF/GNP than Table 2. In Morgan, a one unit increase in DFGNP (deficit/GNP ratio) raises CF/GNP ratio by 0.66 units. In Table 2 a one unit increase in DFGNP raises CF/GNP ratio by 0.53 units. The results are very similar across the other models with the DFGNP variable.

The significance of BMIR has also improved in the second set of equations and is significant at 1% level in both tables. In Claessens a one-unit increase in BMIR will increase the CF/GNP ratio by 0.12 units. The results are very similar across the other models as well.

I looked for the significance of a time trend variable and found it to be insignificant. I also looked at the impact of country risk using a dummy variable Political Instability (PINS) where the periods of highest political instability in Turkey were given a one (1970,71,78-80) and all other periods a zero. This is admittedly a rough method of modeling country risk. But is likely adequate for Turkey, especially when the economic component of country risk is captured in the other variables in my model. A regression

run on the model CF/GNP=(CC, PINS, INTD, DFGNP, BMIR) shows that the political risk dummy variable is not significant. Data for more detailed measures of capital flight from such sources as the Institutional Investor and the International Country Risk Guide are not available in a consistent format for Turkey over the time span of my analysis. Such detail should not be any more significant. Unlike many other countries, governmental instability in Turkey has often resulted in public or behind-the-scenes military intervention, dampening country risk at times when other indicators point to peaks in such risk.

Given the major change in Turkish capital controls in the early 1980s, I also looked for the existence of a structural break. Looking at the 1970-1983 period (capital controls in place) separately from 1984-1995 (capital controls relaxed) did yield evidence of such a break (Table 4). With my first regression my variables are the Interest Rate Differential (INTD), Deficit-GNP ratio (DFGNP) and Black Market Incentives (BMIR). Interest rate differentials change from a significant negative correlation in the earlier period to an insignificant positive correlation in the latter. An over-valued currency as measured by BMIR was a much more important factor in the second period. Replacing the interest differential with the real interest rate differential in the second regressions yields results showing that the Real Interest Rate Differential, Deficit-GNP ratio and Overvaluation of the Currency all had a significant relationship with the dependent variable CF/GNP in both of the sub-samples. However RINTD has a significant negative correlation in the first period and an even more significant positive relationship in the 1984-93 period. BMIR again becomes a more significant factor in the second period. Such results validate other evidence that changes in capital controls and/or other concurrent changes effecting the Turkish economic system occurred in the 1983-84 timeframe.

I also conducted a series of regressions examining the significance of inflows to outflows in Turkey. Outflow is capital flight numbers as determined by the Claessens definition as calculated in chapter 4 and inflows were Change in Debt Stock (CADS), Foreign Direct Investment (FDI), and Workers Remittances (WR). As expected, the results show that all

three variables had a significant relationship to capital flight. (Table 3) The change in debt stocks was the most significant as would be expected since it is a component used by Claessens to calculate capital flight, as is FDI. The results help illustrate that external debt and foreign investment often funds capital flight rather than achieving desired improvements in the subject country's economy. Workers remittances have a somewhat unique role in the Turkish economy. Turkey has a large number of citizens working mainly in Europe and Middle Eastern countries. A high negative correlation of capital flight with workers remittances makes sense. Foreign workers are likely to respond to the same stimuli as capital flight, reducing their remittances to their native land when conditions are less favorable and increasing the flow when perceived opportunities improve.

Conclusion

Using the five key capital flight measures discussed in Chapter 2 and 4 reveals an important point. Four definitions are based on a common residual approach. Their relatively small differences result in similar results for my model no matter which is used. This is true for Turkey but may be less valid for other countries where the components of the four methods vary differently. Cuddington's use of net errors and omissions as a full measure of capital flight without considering other contributing factors results in the model not working with his figures as the determinant variable—more a reflection on the problems with his approach than the model itself.

Numerous studies have addressed the utility of capital controls, whether they are "good" or "bad." Controls may indeed keep a country's economy from developing in the best possible directions and scope, but the evidence from our simple proxy does indicate capital controls do inhibit capital flight. Erbe noted that controls on capital transactions could stem capital flight. That seems to be the case here. As Turkey relaxed capital controls, capital flight generally increased. Of course one could argue some of this was a result of pent-up demand pressure for capital flight. As another possible factor, at the

same time capital flight was increasing, the Turkish economy was growing and transforming itself from an import-substitution system to one favoring export promotion, with more opportunities for flight.

The experience of the Southern Cone countries and Turkey has revealed that exchange rate management plays a critical role in the success or failure of stabilization-liberalization programs. (Asikoglu, 1992). With its import substitution economic policies, Turkey was a relatively closed economy during the 1970s. To support such a program, Turkey maintained a fixed exchange rate system and multiple currency practices with strict exchange controls until the early eighties. Such policies obviously inhibited international capital flows. Despite the relaxation of capital controls, the continued significance of black market incentives in the model validates evidence that some controls on exchange rates remained in place and contributed to capital flight.

The results show the deficit-GNP ratio has a positive, significant relationship with capital flight. Growth in this ratio indicates a decreasing Turkish ability to repay its debts and other current and potential economic problems. Domestic confidence in the national currency is a heavy factor in fighting capital flight and increasing debt damages both domestic and international confidence, especially when the new debt is not balanced by new national productivity. The burden of growing debt stocks places brake on economic growth, particularly when the original debt goes to fund the host of things people and even government leaders find more attractive than economic development: consumer imports, corruption, uneconomic prestige projects, and, of course, capital flight. Turkey, like most debtor countries, has found ways to send its borrowed funds all of these directions.

Interest rate differentials are also a reflection of declining confidence from political and/or economic risk. One might initially think a higher interest rate differential would draw capital into Turkey. But remembering that the differential reflects a loss of

confidence and expectations of high inflation results in the negative correlation making more sense.

The results of the structural break analysis show that the determinants for capital flight can and do change over time. The significant change in Turkish capital controls is a relatively easy flag identifying at least the potential for a structural break. But analysts must remember that more subtle changes in the domestic economic structure or external system could also prove important in some situations.

Regarding the relationship between outflows and inflows the change in debt stocks is a key factor, with the most significance of any factor in our study. As with many developing countries, much of Turkey's increasing external debt apparently goes to finance capital flight. And the debt's growth and very existence contributes to a downward spiral of conditions that produce more capital flight as income needed for self sustained growth goes instead to debt servicing. An increase in a county's debt is the biggest determinant of capital flight, both because it can directly fund the capital flows.

Workers Remittances are an important, almost unique, component of Turkish capital flows. Other countries such as Thailand, Egypt and India do have significant numbers of foreign workers, but Turkey is essentially in a class by itself with a large, well paid mass of its citizens remaining in Europe and large numbers of more transient workers laboring in the Middle East and elsewhere. The high negative correlation of capital flight with workers remittances makes sense. The inflow of remittances can pay for capital flight, but most of the very factors that encourage remittances serve to discourage capital flight and visa versa. Country risk factors that cause remittances to shrink will also contribute to capital flight increases.

Foreign Investment also made a significant contribution, apparently helping fund a portion of Turkey's capital flight. Increases and decreases in FDI should prove inversely proportional to capital flight. In most situations, residents will likely want to keep money

in the country for investment at the same time the economy is favorable for foreign investment. And resident capital will usually want to flee at the same time foreigners consider investment unattractive.

To fight capital flight, a country must allow its currency to find a fair value, letting it float or setting it at a realistic level and then making sure that the real exchange rate is not ravaged by domestic inflation. After abandoning fixed rates in the 80s, Turkey attempted to do this but still left in place some policies and procedures that left a black market incentive, and therefore a capital flight incentive, in place. At least some capital controls do apparently have an impact on capital flight, but only at the expense of economic development. The issue is simple; the solutions are basic yet difficult to implement in the real world, especially by the weak coalition governments that are Turkey's recent fate. Debt must be reduced and when debt is incurred it must result in investments that contribute to notional output. Anything less results in a situation where government capabilities are overwhelmed by international economic realities. In an increasingly inter-linked world system, government policies that fail to address such fundamentals cannot succeed.

Table 1

Different Measurements and Determinants of Capital Flight with RINTD

	C	CC	RINTD	DFGNP	BMIR	R2	DW	ADF
Modified Claessens	0.05 (2.83)	-0.06 (-3.59)**	-0.00005 (-0.33)	0.60 (2.63)**	0.12 (2.97)**	0.40	1.77	-3.08*
Morgan	0.05 (2.91)	-0.05 (-3.62)**	-0.00002 (-0.14)	0.66 (3.27)**	0.12 (3.23)**	0.38	1.69	-3.07*
Cline	0.02 (1.19)	-0.03 (-1.99)*	-0.00002 (-0.15)	0.59 (2.77)**	0.12 (3.06)**	0.20	1.55	-3.07*
Dooley	0.03 (1.69)	-0.04 (-2.33)*	-0.00017 (-1.32)	0.70 (2.35)*	0.12 (3.01)**	0.20	1.84	-3.35*
Cuddington	0.007 (1.68)	-0.004 (-0.83)	0.00026 (4.58)**	0.09 (0.87)	0.02 (1.31)	0.10	1.92	-2.42

t statistics are in parentheses.
*t statistics are significant at 5% level.
**t statistics are significant at 1% level.
R2=Adjusted R square.

*Regressions are run with Newey-West hetrskty. test.
*ADF at 1% is=-3.78**
ADF at 5% is=-3.01

*CC= Capital Controls
*RINTD= Real Int.Rate Differentials
*DFGNP= Deficit to GNP Ratio
*BMIR= Black Market Incentives

Table 2

Different Measurements and Determinants of Capital Flight with INTD

	C	CC	INTD	DFGNP	BMIR	R2	DW	ADF
Modified Claessens	0.07 (3.69)	-0.07 (-4.55)**	-0.0005 (-2.74)**	0.48 (2.15)*	0.11 (3.43)**	0.47	2.06	-3.79**
Morgan	0.07 (3.85)	-0.07 (-4.56)**	-0.0006 (-2.63)**	0.53 (2.41)*	0.11 (3.66)**	0.48	2.09	-4.03**
Cline	0.05 (2.51)	-0.05 (-3.41)**	-0.00081 (-3.40)**	0.43 (1.95)*	0.10 (3.44)**	0.38	1.98	-4.06**
Dooley	0.06 (2.81)	-0.06 (-3.46)**	-0.00072 (-2.98)**	0.57 (2.07)*	0.12 (3.19)**	0.28	2.12	-4.27**
Cuddington	0.008 (1.48)	-0.007 (-1.39)	-0.00009 (-0.65)	0.05 (0.39)	0.03 (0.13)	-0.16	1.63	-2.89

t statistics are in parentheses.
*t statistics are significant at 5% level.
**t statistics are significant at 1% level.
R2=Adjusted R square.

*Regressions are run with Newey-West heterosk. test.
*ADF at 1% is=-3.78**
ADF at 5% is=-3.01

*BMIR= Black Market Incentives
*CC= Capital Controls
*INTD= Int. Rate Differentials
*DFGNP= Deficit to GNP Ratio

Table 3

Capital Outflow versus Capital Inflow

CADS	0.60
	(4.83)**
FDI	4.06
	(2.55)**
WR	-1.23
	(-2.58)**
C	1074.4
	(1.49)
R2	0.76
DW	1.72
ADF	-4.17

t statistics are in parentheses.
*t statistics are significant at 5% level.
**t statistics are significant at 1% level.
R2=Adjusted R square.

CADS= Change in Adjusted Debt Stock
FDI= Foreign Direct Investment
WR= Workers Remittances

Table 4

Structural Break Analysis

Sample	1971-1983	1984-1993
INTD	-0.0006	0.000007
	(2.97)**	(0.02)
DFGNP	0.37	0.07
	(0.80)	(0.33)
BMIR	0.09	0.93
	(1.81)	(7.72)**
Sample	1971-1983	1984-1993
RINTD	-0.000168	0.001
	(2.37)**	(5.76)**
DFGNP	0.77	0.28
	(2.54)**	(1.74)*
BMIR	0.11	0.93
	(2.74)**	(6.48)**

t statistics are in parentheses.
*t statistics are significant at 5% level.
**t statistics are significant at 1% level.
R2=Adjusted R square.

Table 3-1. Deficit, GNP and DFGNP 1970-1995.

Year	Deficit	GNP	DFGNP= DEF/GNP
1970	-315	18,071.0	-0.017419
1971	-433	16,338.0	-0.026489
1972	-361	17,018.0	-0.021200
1973	-389	30,667.0	-0.012672
1974	-535	42,048.0	-0.012721
1975	-485	48,489.0	-0.009995
1976	-825	53,155.0	-0.015513
1977	-2,936	70,776.0	-0.041476
1978	-2,265	58,329.0	-0.038836
1979	-4,408	59,021.0	-0.074685
1980	-2,117	55,801.0	-0.037944
1981	-1,052	56,240.0	-0.018705
1982	-1,846	51,543.0	-0.035807
1983	-2,142	49,683.0	-0.043119
1984	-4,950	48,228.0	-0.102634
1985	-3,927	51,445.0	-0.076341
1986	-1,867	56,503.0	-0.033034
1987	-2,737	85,301.0	-0.032084
1988	-2,713	90,818.0	-0.029874
1989	-3,536	108,579.0	-0.032565
1990	-4,516	152,255.0	-0.029662
1991	-7,986	152,066.0	-0.052518
1992	-6,887	160,585.0	-0.042885
1993	-12,117	181,829.0	-0.066642
1994	-5,094	131,313.0	-0.038796
1995	-6,870	166,740.0	-0.041200

Table 3-2. Consumer Price Index

CPI, 1969-1995. Base Year 1990=100

Year	CPI	Percentage Change in CPI
1969	0.1457	-
1970	0.1557	6.9
1971	0.1802	15.7
1972	0.2013	11.7
1973	0.2323	15.4
1974	0.2690	15.8
1975	0.3206	19.2
1976	0.3764	17.4
1977	0.4784	27.1
1978	0.6966	45.6
1979	1.1060	58.8
1980	2.3240	110.1
1981	3.1700	36.4
1982	4.1520	31.0
1983	5.4600	31.5
1984	8.0960	48.3
1985	11.7400	45.0
1986	15.8000	34.6
1987	22.0000	39.2
1988	38.2000	73.6
1989	62.4000	63.4
1990	100.0000	60.3
1991	166.0000	66.0
1992	282.3000	70.1
1993	468.8000	66.1
1994	967.0000	106.3
1995	1819.1000	88.1

Source: International Financial Statistics,1997 Yearbook, line:64.

Table 3-3 Interest Rates in Turkey 1970-1995

Year	Interest Deposit Rates	Percent Change in CPI	Real Rate of Return
1970	4.0	6.9	-2.9
1971	4.0	15.7	-11.7
1972	4.0	11.7	-7.7
1973	4.0	15.4	-11.4
1974	6.0	15.8	-9.8
1975	6.0	19.2	-13.2
1976	6.0	17.4	-11.4
1977	6.0	27.1	-21.1
1978	6.0	45.6	-39.6
1979	7.3	58.8	-51.4
1980	8.0	110.1	-102.1
1981	26.5	36.4	-9.9
1982	45.0	31.0	14.0
1983	45.3	31.5	13.8
1984	51.4	48.3	3.1
1985	49.3	45.0	4.2
1986	40.6	34.6	6.0
1987	35.0	39.2	-4.2
1988	49.1	73.6	-24.6
1989	53.5	63.4	-9.9
1990	47.6	60.3	-12.7
1991	62.9	66.0	-3.1
1992	68.7	70.1	-1.3
1993	64.6	66.1	-1.5
1994	87.8	106.3	-18.5
1995	76.1	88.1	-12.0

Table 3-4 Black Market and Official Exchange Rates

BMI in Turkey, 1970-1993

Year	Black Market Rate	Official Exchange Rate	bmr/o	BMI	BMIR= BMI/OER
1970	15.90	15.00	1.06	0.90	0.060000
1971	15.35	14.00	1.10	1.35	0.096429
1972	14.60	14.00	1.04	0.60	0.042857
1973	14.70	14.00	1.05	0.70	0.050000
1974	14.85	13.99	1.06	0.86	0.061472
1975	16.85	15.15	1.11	1.70	0.112211
1976	18.10	16.67	1.09	1.43	0.085783
1977	26.25	19.44	1.35	6.81	0.350309
1978	37.90	25.25	1.50	12.65	0.500990
1979	54.00	35.35	1.53	18.65	0.527581
1980	104.55	90.15	1.16	14.40	0.159734
1981	159.00	132.62	1.20	26.38	0.198914
1982	215.00	186.75	1.15	28.25	0.151272
1983	315.00	282.80	1.11	32.20	0.113861
1984	450.00	444.74	1.01	5.26	0.011827
1985	592.85	577.00	1.03	15.85	0.027470
1986	812.00	758.00	1.07	54.00	0.071240
1987	1,100.00	1,021.00	1.08	79.00	0.077375
1988	1,980.00	1,815.00	1.09	165.00	0.090909
1989	2,350.00	2,311.00	1.02	39.00	0.016876
1990	3,000.00	2,977.00	1.01	23.00	0.007726
1991	5,275.00	5,107.00	1.03	168.00	0.032896
1992	8,825.00	8,564.00	1.03	261.00	0.030476
1993	14,990.00	14,473.00	1.04	517.00	0.035722

Table 3-5 FDI in Turkey, 1970-1995

Foreign Direct Investment (FDI)

Year	Foreign Direct Investment in Turkey	Percent change from the year before
1970	58	-
1971	45	-22.4
1972	43	-4.4
1973	79	83.7
1974	64	-19.0
1975	114	78.1
1976	10	-91.2
1977	27	170.0
1978	34	25.9
1979	75	120.6
1980	18	-76.0
1981	95	427.8
1982	55	-42.1
1983	46	-16.4
1984	113	145.7
1985	99	-12.4
1986	125	26.3
1987	115	-8.0
1988	354	207.8
1989	663	87.3
1990	684	3.2
1991	810	18.4
1992	844	4.2
1993	636	-24.6
1994	608	-4.4
1995	885	45.6

Source: 1997, International Financial Statistics Yearbook, line:78ebd.

Table 3-6. Workers Remittances 1970-1995

Year	Worker's Remittances	Change in Workers Remittances	GNP	Worker's Remittances to GNP
1970	273.0	-	18,071.0	0.02
1971	470.0	72.2	16,338.0	0.03
1972	682.0	45.1	17,018.0	0.04
1973	993.0	45.6	30,667.0	0.03
1974	1,186.0	19.4	42,048.0	0.03
1975	1,312.4	10.7	48,489.0	0.03
1976	982.7	-25.1	53,155.0	0.02
1977	981.9	-0.1	70,776.0	0.01
1978	983.1	0.1	58,329.0	0.02
1979	1,696.4	72.6	59,021.0	0.03
1980	2,070.9	22.1	55,801.0	0.04
1981	2,490.0	20.2	56,240.0	0.04
1982	2,140.0	-14.1	51,543.0	0.04
1983	1,513.0	-29.3	49,683.0	0.03
1984	1,807.0	19.4	48,228.0	0.04
1985	1,714.0	-5.1	51,445.0	0.03
1986	1,614.0	-5.8	56,503.0	0.03
1987	2,021.0	25.2	85,301.0	0.02
1988	1,776.0	-12.1	90,818.0	0.02
1989	3,040.0	71.2	108,579.0	0.03
1990	3,246.0	6.8	152,255.0	0.02
1991	2,819.0	-13.2	152,066.0	0.02
1992	3,008.0	6.7	160,585.0	0.02
1993	2,919.0	-3.0	181,829.0	0.02
1994	2,627.0	-10.0	131,313.0	0.02
1995	3,327.0	26.6	166,740.0	0.02

Balance of Payments Statistics Yearbook, Different Issues.
Figures are in Millions of Dollars

Table 3-7. Exchange Rates in Turkey, TL/$, 1970-1995

Year	Exchange Rates, line rf	Percent Change	Exchange Rates, line ae	Percent Change
1970	12		15	
1971	15	30	14	-5
1972	14	-5	14	0
1973	14	0	14	0
1974	14	-2	14	-1
1975	14	4	15	9
1976	16	11	17	10
1977	18	12	19	16
1978	24	35	25	30
1979	31	28	35	40
1980	76	145	90	155
1981	111	46	134	48
1982	163	46	187	40
1983	225	39	283	51
1984	367	63	445	57
1985	522	42	577	30
1986	675	29	758	31
1987	857	27	1,021	35
1988	1,422	66	1,815	78
1989	2,122	49	2,314	27
1990	2,609	23	2,930	27
1991	4,172	60	5,080	73
1992	6,872	65	8,564	69
1993	10,985	60	14,473	69
1994	29,609	170	38,726	168
1995	45,845	55	59,650	54
1996	81,405	78	107,775	81

Source: International Financial Statistics Yearbook, 1997.
Line rf is the peiod average, ae is the value at the end of period.

Table 3-8. Exports, Imports, trade of balance. 1970-1995.

Year	Exports, line 78aad	Imports, line 78abd	Balance of Trade	Percentage Change in Exports	Percentage Change in Imports
1970	588	844	-256		
1971	677	1,042	-365	15.1	23.5
1972	885	1,391	-506	30.7	33.5
1973	1,317	1,857	-540	48.8	33.5
1974	1,532	3,589	-2,057	16.3	93.3
1975	1,401	4,502	-3,101	-8.6	25.4
1976	1,960	4,872	-2,912	39.9	8.2
1977	1,753	5,506	-3,753	-10.6	13.0
1978	2,288	4,369	-2,081	30.5	-20.7
1979	2,261	4,815	-2,554	-1.2	10.2
1980	2,910	7,513	-4,603	28.7	56.0
1981	4,703	8,567	-3,864	61.6	14.0
1982	5,890	8,518	-2,628	25.2	-0.6
1983	5,905	8,895	-2,990	0.3	4.4
1984	7,389	10,331	-2,942	25.1	16.1
1985	8,255	11,230	-2,975	11.7	8.7
1986	7,583	10,664	-3,081	-8.1	-5.0
1987	10,322	13,551	-3,229	36.1	27.1
1988	11,929	13,706	-1,777	15.6	1.1
1989	11,780	15,999	-4,219	-1.2	16.7
1990	13,026	22,581	-9,555	10.6	41.1
1991	13,667	21,007	-7,340	4.9	-7.0
1992	14,891	23,081	-8,190	9.0	9.9
1993	15,611	29,771	-14,160	4.8	29.0
1994	18,390	22,606	-4,216	17.8	-24.1
1995	21,975	35,187	-13,212	19.5	55.7

Source: International Financial Statistics Yearbook, 1997

Table 4. Summary of Capital Flight figures

Capital Flight from Turkey, 1971-1995

Year	WB CF	Claessens	MORGAN	CLINE	DOOLEY	Cuddington	TRADE
1970	-	-	-	-	-	111	-330
1971	141.6	129.4	117	54	-2	-21	-278
1972	-242	-233.8	-246	-350	-368	261	-294
1973	507.2	422.9	399	227	580	-440	-428
1974	360.2	364.2	380	186	551	170	-6
1975	562.1	737.9	488	287	738	351	604
1976	-1118	-1224.4	-1,106	-1,287	-1,224	831	279
1977	3263.5	3133.3	3,187	2,982	3,133	635	1,248
1978	2193.5	2080.9	2,003	1,769	2,081	874	497
1979	-141.1	17.4	-25	-306	17	-651	613
1980	-231.5	347.8	59	-267	348	-1,435	1,398
1981	-1718.8	-1304.1	-1,551	-1,931	-1,304	-650	-69
1982	-555.2	-850.3	-1,006	-1,489	-1,878	76	-292
1983	-1254.9	-1133.9	-1,176	-1,677	-1,048	-408	-244
1984	-121.5	-66.2	-1,150	-1,844	-645	-318	-1,062
1985	3604.5	880.5	963	-429	-1,572	837	-1,535
1986	4929	4496.6	3,762	2,469	2,753	121	-413
1987	6745.4	5793.9	5,447	3,589	4,924	505	-1,177
1988	810.7	5896.5	4,080	1,351	6,901	-515	-855
1989	-455.4	-1798.3	-1,128	-4,369	-4,661	-915	2,415
1990	4907.1	2065.1	1,314	-2,828	-1,717	469	1,101
1991	3789.7	5709.7	5,197	1,608	622	-926	-218
1992	4120.9	5419.9	2,366	-2,044	706	1,221	-493
1993	6244	4531	2,363	-2,293	3,326	2,222	
1994	627	-2238	-185	-5,197	4,926	-1,766	
1995	1087	5063	3,767	-2,348	-831	-2,277	

Table 4-1. World Bank, Capital Flight

Capital Flight from Turkey, 1971-1995

Year	Total External Debt Short+Long+Imf	Change in Debt Stock	Net Foreign Direct Investment	Current Account Balance	Change in Official Reserves	**World Bank, Capital Flight**
1970	1,962.4	-	58.0	-44.0	-143.8	-
1971	2,347.6	385.2	45.0	43.1	-331.7	141.6
1972	2,539.6	192.0	43.0	211.7	-688.7	-242.0
1973	3,003.2	463.6	79.0	660.4	-695.8	507.2
1974	3,309.8	306.6	64.0	-561.0	550.6	360.2
1975	4,768.8	1,459.0	114.0	-1,648.0	637.1	562.1
1976	5,442.3	673.5	10.0	-2,029.0	227.5	-1,118.0
1977	11,452.3	6,010.0	27.0	-3,140.0	366.5	3,263.5
1978	14,855.0	3,402.7	34.0	-1,265.0	21.8	2,193.5
1979	15,900.1	1,045.1	75.0	-1,413.0	151.8	-141.1
1980	19,131.0	3,230.9	18.0	-3,408.0	-72.4	-231.5
1981	19,181.0	50.0	95.0	-1,936.0	72.2	-1,718.8
1982	19,677.0	496.0	55.0	-952.0	-154.2	-555.2
1983	20,289.0	612.0	46.0	-1,923.0	10.1	-1,254.9
1984	21,567.0	1,278.0	113.0	-1,407.0	-105.5	-121.5
1985	25,977.0	4,410.0	99.0	-1,013.0	108.5	3,604.5
1986	32,784.0	6,807.0	125.0	-1,463.0	-540.0	4,929.0
1987	40,800.0	8,016.0	115.0	-806.0	-579.6	6,745.4
1988	40,814.0	14.0	354.0	1,596.0	-1,153.3	810.7
1989	41,447.0	633.0	663.0	961.0	-2,712.4	-455.4
1990	49,238.0	7,791.0	684.0	-2,625.0	-942.9	4,907.1
1991	50,747.0	1,509.0	810.0	272.0	1,198.7	3,789.7
1992	56,451.0	5,704.0	844.0	-943.0	-1,484.1	4,120.9
1993	68,800.0	12,349.0	636.0	-6,433.0	-308.0	6,244.0
1994	66,391.0	-2,409.0	608.0	2,631.0	-203.0	627.0
1995	73,592.0	7,201.0	885.0	-2,339.0	-4,660.0	1,087.0

Increase in reserves has a "-" sign in the Balance of Payments Yearbook.

Table 4-2A. Change in Adjusted Debt Stock

Capital Flight from Turkey, 1971-1995

Year	Total External Debt Short+Long+Imf	Exchange Rate Impact	Adjusted Debt Stock	**Change in Adjusted Debt Stock**
1970	1,962.4	0.0	1,962.4	0.0
1971	2,347.6	12.2	2,335.4	373.0
1972	2,539.6	4.0	2,535.6	200.2
1973	3,003.2	88.3	2,914.9	379.3
1974	3,309.8	84.3	3,225.5	310.6
1975	4,768.8	-91.5	4,860.3	1,634.8
1976	5,442.3	14.9	5,427.4	567.1
1977	11,452.3	145.1	11,307.2	5,879.8
1978	14,855.0	257.7	14,597.3	3,290.1
1979	15,900.1	99.2	15,800.9	1,203.6
1980	19,131.0	-480.1	19,611.1	3,810.2
1981	19,181.0	-894.8	20,075.8	464.7
1982	19,677.0	-599.7	20,276.7	200.9
1983	20,289.0	-720.7	21,009.7	733.0
1984	21,567.0	-776.0	22,343.0	1,333.3
1985	25,977.0	1,948.0	24,029.0	1,686.0
1986	32,784.0	2,380.4	30,403.6	6,374.6
1987	40,800.0	3,331.9	37,468.1	7,064.5
1988	40,814.0	-1,759.9	42,573.9	5,105.8
1989	41,447.0	-476.0	41,923.0	-650.9
1990	49,238.0	2,232.0	47,006.0	5,083.0
1991	50,747.0	221.0	50,526.0	3,520.0
1992	56,451.0	-1,128.0	57,579.0	7,053.0
1993	68,800.0	446.0	68,354.0	10,775.0
1994	66,391.0	3,316.0	63,075.0	-5,279.0
1995	73,592.0	752.0	72,840.0	9,765.0

Table 4-2B. Claessens' Capital Flight

Capital Flight from Turkey, 1971-1995

Year	Change in Adjusted Debt Stock	Net Foreign Direct Investment	Current Account Balance	Change in Reserves	Corporate Equity Investments	**Claessens' Capital Flight**
1970	-	58.0	-44.0	-143.8	0.0	-
1971	373.0	45.0	43.1	-331.7	0.0	129.4
1972	200.2	43.0	211.7	-688.7	0.0	-233.8
1973	379.3	79.0	660.4	-695.8	0.0	422.9
1974	310.6	64.0	-561.0	550.6	0.0	364.2
1975	1,634.8	114.0	-1,648.0	637.1	0.0	737.9
1976	567.1	10.0	-2,029.0	227.5	0.0	-1,224.4
1977	5,879.8	27.0	-3,140.0	366.5	0.0	3,133.3
1978	3,290.1	34.0	-1,265.0	21.8	0.0	2,080.9
1979	1,203.6	75.0	-1,413.0	151.8	0.0	17.4
1980	3,810.2	18.0	-3,408.0	-72.4	0.0	347.8
1981	464.7	95.0	-1,936.0	72.2	0.0	-1,304.1
1982	200.9	55.0	-952.0	-154.2	0.0	-850.3
1983	733.0	46.0	-1,923.0	10.1	0.0	-1,133.9
1984	1,333.3	113.0	-1,407.0	-105.5	0.0	-66.2
1985	1,686.0	99.0	-1,013.0	108.5	0.0	880.5
1986	6,374.6	125.0	-1,463.0	-540.0	0.0	4,496.6
1987	7,064.5	115.0	-806.0	-579.6	0.0	5,793.9
1988	5,105.8	354.0	1,596.0	-1,153.3	-6.0	5,896.5
1989	-650.9	663.0	961.0	-2,712.4	-59.0	-1,798.3
1990	5,083.0	684.0	-2,625.0	-942.9	-134.0	2,065.1
1991	3,520.0	810.0	272.0	1,198.7	-91.0	5,709.7
1992	7,053.0	844.0	-943.0	-1,484.1	-50.0	5,419.9
1993	10,775.0	636.0	-6,433.0	-308.0	-139.0	4,531.0
1994	-5,279.0	608.0	2,631.0	-203.0	5.0	-2,238.0
1995	9,765.0	885.0	-2,339.0	-4,660.0	1,412.0	5,063.0

Table 4-3. MORGAN, Capital Flight

Capital Flight, Turkey 1971-1995.

Year	Claessens' Capital Flight	Deposit Money Banks, Assets	Change in Deposit Money Banks, Assets	**Capital Flight, MORGAN**
1970	-	25.1	-	-
1971	129.4	37.8	12.7	116.7
1972	-233.8	50.0	12.2	-246.0
1973	422.9	74.1	24.1	398.8
1974	364.2	58.3	-15.8	380.0
1975	737.9	308.7	250.4	487.5
1976	-1,224.4	190.5	-118.2	-1,106.2
1977	3,133.3	137.2	-53.3	3,186.6
1978	2,080.9	215.1	77.9	2,003.0
1979	17.4	257.8	42.7	-25.3
1980	347.8	547.0	289.2	58.6
1981	-1,304.1	793.9	246.9	-1,551.0
1982	-850.3	949.9	156.0	-1,006.3
1983	-1,133.9	991.9	42.0	-1,175.9
1984	-66.2	2,076.1	1,084.2	-1,150.4
1985	880.5	1,993.6	-82.5	963.0
1986	4,496.6	2,728.0	734.4	3,762.2
1987	5,793.9	3,075.0	347.0	5,446.9
1988	5,896.5	4,892.0	1,817.0	4,079.5
1989	-1,798.3	4,222.0	-670.0	-1,128.3
1990	2,065.1	4,973.0	751.0	1,314.1
1991	5,709.7	5,486.0	513.0	5,196.7
1992	5,419.9	8,540.0	3,054.0	2,365.9
1993	4,531.0	10,708.0	2,168.0	2,363.0
1994	-2,238.0	8,655.0	-2,053.0	-185.0
1995	5,063.0	9,951.0	1,296.0	3,767.0

Source:IMF International Financial Statistics, 1997.
Deposit Money Banks, Assets;line 7 a.d.

Table 4-4. Cline's Capital Flight

Capital Flight from Turkey, 1971-1995

Year	Capital Flight, MORGAN	Travel & Tourism Credit	Reinvested FDI Income	Other Investment Income, Credit	**Cline, Capital Flight**
1970	-	51.0	0.0	0.0	-
1971	116.7	63.2	0.0	0.0	53.5
1972	-246.0	104.2	0.0	0.0	-350.2
1973	398.8	171.7	0.0	0.0	227.1
1974	380.0	194.0	0.0	0.0	186.0
1975	487.5	201.0	0.0	0.0	286.5
1976	-1,106.2	181.0	0.0	0.0	-1,287.2
1977	3,186.6	205.0	0.0	0.0	2,981.6
1978	2,003.0	234.0	0.0	0.0	1,769.0
1979	-25.3	281.0	0.0	0.0	-306.3
1980	58.6	326.0	0.0	0.0	-267.4
1981	-1,551.0	380.0	0.0	0.0	-1,931.0
1982	-1,006.3	373.0	0.0	110.0	-1,489.3
1983	-1,175.9	420.0	0.0	81.0	-1,676.9
1984	-1,150.4	548.0	0.0	146.0	-1,844.4
1985	963.0	1,094.0	0.0	298.0	-429.0
1986	3,762.2	950.0	0.0	343.0	2,469.2
1987	5,446.9	1,476.0	0.0	382.0	3,588.9
1988	4,079.5	2,355.0	0.0	374.0	1,350.5
1989	-1,128.3	2,557.0	0.0	684.0	-4,369.3
1990	1,314.1	3,225.0	0.0	917.0	-2,827.9
1991	5,196.7	2,654.0	0.0	935.0	1,607.7
1992	2,365.9	3,639.0	0.0	771.0	-2,044.1
1993	2,363.0	3,959.0	0.0	697.0	-2,293.0
1994	-185.0	4,321.0	0.0	691.0	-5,197.0
1995	3,767.0	4,957.0	-50.0	1,208.0	-2,348.0

Source: Travel&Tourism:BOP, 1996;line, 2-236.
Reinvested FDI Income, line 2-333,3-333.
Other investment income,credit;line 2-370.

Table 4-5. Dooley's Capital Flight

Capital Flight from Turkey, 1971-1995

Year	Change in Adjusted Debt Stock	Capital Account	Net Errors & Omissions	Increase in Reserves	Foreign Direct Investment	Corporate Equity Investments	Change in Stock of Assets	**Dooley, Capital Flight**
1970	-	155.3	-111.3	-143.8	58.0	0.0	-	-
1971	373.0	-63.9	20.8	-331.7	45.0	0.0	131.2	-1.8
1972	200.2	49.6	-261.3	-688.7	43.0	0.0	134.6	-368.4
1973	379.3	-1,099.9	439.5	-695.8	79.0	0.0	-156.8	579.7
1974	310.6	730.6	-169.6	550.6	64.0	0.0	-187.1	551.3
1975	1,634.8	1,999.1	-351.1	637.1	114.0	0.0	0.0	737.9
1976	567.1	2,859.5	-830.5	227.5	10.0	0.0	0.0	-1,224.4
1977	5,879.8	3,774.5	-634.5	366.5	27.0	0.0	0.0	3,133.3
1978	3,290.1	2,138.8	-873.8	21.8	34.0	0.0	0.0	2,080.9
1979	1,203.6	761.8	651.2	151.8	75.0	0.0	0.0	17.4
1980	3,810.2	1,972.6	1,435.4	-72.4	18.0	0.0	0.0	347.8
1981	464.7	1,286.2	649.8	72.2	95.0	0.0	0.0	-1,304.1
1982	200.9	1,027.9	-75.8	-154.2	55.0	0.0	1,028.0	-1,878.4
1983	733.0	1,515.1	407.9	10.1	46.0	0.0	-86.2	-1,047.7
1984	1,333.3	1,089.5	317.5	-105.5	113.0	0.0	579.0	-645.2
1985	1,686.0	1,849.5	-836.5	108.5	99.0	0.0	2,452.5	-1,572.0
1986	6,374.6	1,584.0	-121.0	-540.0	125.0	0.0	1,743.3	2,753.3
1987	7,064.5	1,311.4	-505.4	-579.6	115.0	0.0	869.5	4,924.4
1988	5,105.8	-2,111.3	515.3	-1,153.3	354.0	-6.0	-1,004.1	6,900.6
1989	-650.9	-1,876.4	915.4	-2,712.4	663.0	-59.0	2,862.4	-4,660.7
1990	5,083.0	3,094.1	-469.1	-942.9	684.0	-134.0	3,782.2	-1,717.1
1991	3,520.0	-1,198.3	926.3	1,198.7	810.0	-91.0	5,088.1	621.6
1992	7,053.0	2,163.9	-1,220.9	-1,484.1	844.0	-50.0	4,713.8	706.1
1993	10,775.0	8,655.0	-2,222.0	-308.0	636.0	-139.0	1,204.8	3,326.2
1994	-5,279.0	-4,397.0	1,766.0	-203.0	608.0	5.0	-7,163.6	4,925.6
1995	9,765.0	62.0	2,277.0	-4,660.0	885.0	1,412.0	5,893.9	-830.9

Table 4-5A. Dooley's Capital Flight

Capital Flight from Turkey, 1971-1995

Year	+Investment Income	/US Treasury Bill Rate	Stock of Reported Assets	Change in Stock of Assets	**Dooley, Capital Flight**
1970	5.0	6.4	78.1	-	-
1971	9.0	4.3	209.3	131.2	-1.8
1972	14.1	4.1	343.9	134.6	-368.4
1973	13.1	7.0	187.1	-156.8	579.7
1974	0.0	7.9	0.0	-187.1	551.3
1975	0.0	5.8	0.0	0.0	737.9
1976	0.0	5.0	0.0	0.0	-1,224.4
1977	0.0	5.3	0.0	0.0	3,133.3
1978	0.0	7.2	0.0	0.0	2,080.9
1979	0.0	10.0	0.0	0.0	17.4
1980	0.0	11.6	0.0	0.0	347.8
1981	0.0	14.1	0.0	0.0	-1,304.1
1982	110.0	10.7	1,028.0	1,028.0	-1,878.4
1983	81.0	8.6	941.9	-86.2	-1,047.7
1984	146.0	9.6	1,520.8	579.0	-645.2
1985	298.0	7.5	3,973.3	2,452.5	-1,572.0
1986	343.0	6.0	5,716.7	1,743.3	2,753.3
1987	382.0	5.8	6,586.2	869.5	4,924.4
1988	374.0	6.7	5,582.1	-1,004.1	6,900.6
1989	684.0	8.1	8,444.4	2,862.4	-4,660.7
1990	917.0	7.5	12,226.7	3,782.2	-1,717.1
1991	935.0	5.4	17,314.8	5,088.1	621.6
1992	771.0	3.5	22,028.6	4,713.8	706.1
1993	697.0	3.0	23,233.3	1,204.8	3,326.2
1994	691.0	4.3	16,069.8	-7,163.6	4,925.6
1995	1,208.0	5.5	21,963.6	5,893.9	-830.9

Table 4-6. Cuddington's Capital Flight

Capital Flight from Turkey, 1970-1995

Year	Net Errors & Omissions= G	**Hot Money 1= -(G)**	Other Short-Term Capital of Other Sectors=C	**Hot Money 2= -(G+C)**
1970	-111.3	111.3	20	91.3
1971	20.8	-20.8	62.2	-83.0
1972	-261.3	261.3	36.9	224.4
1973	439.5	-439.5	-765.3	325.8
1974	-169.6	169.6	0	169.6
1975	-351.1	351.1	0	351.1
1976	-830.5	830.5	0	830.5
1977	-634.5	634.5	1983	-1,348.5
1978	-873.8	873.8	585	288.8
1979	651.2	-651.2	-379	-272.2
1980	1,435.4	-1,435.4	-1030	-405.4
1981	649.8	-649.8	-347	-302.8
1982	-75.8	75.8	14	61.8
1983	407.9	-407.9	96	-503.9
1984	317.5	-317.5	159	-476.5
1985	-836.5	836.5	463	373.5
1986	-121.0	121.0	447	-326.0
1987	-505.4	505.4	-349	854.4
1988	515.3	-515.3	-351	-164.3
1989	915.4	-915.4	-4	-911.4
1990	-469.1	469.1	1362	-892.9
1991	926.3	-926.3	37	-963.3
1992	-1,220.9	1,220.9	1641	-420.1
1993	-2,222.0	2,222.0	1850	372.0
1994	1,766.0	-1,766.0	-947	-819.0
1995	2,277.0	-2,277.0	2117	-4,394.0

Source: IMF, Balance of Payments Yearbook, (BoPY) Various Issues
G=IMF, BoPY, line 112. After 1993 changed to line 4-998.
C=IMF, BoPY, line 93...97;Other short term capital of other sectors, lines 4-748,762,777.
E=IMF, BoPY, line 4-610;Equity Securities.

Table 4-6A. Cuddington's Capital Flight

Capital Flight from Turkey, 1970-1995

Year	Net Errors & Omissions=G	Other Short-Term Capital of Other Sectors=C	Equity Securities=E	**Hot Money 3= -(G+C+E)**
1970	-111.3	20	0.0	91.3
1971	20.8	62.2	0.0	-83.0
1972	-261.3	36.9	0.0	224.4
1973	439.5	-765.3	0.0	325.8
1974	-169.6	0	0.0	169.6
1975	-351.1	0	0.0	351.1
1976	-830.5	0	0.0	830.5
1977	-634.5	1983	0.0	-1,348.5
1978	-873.8	585	0.0	288.8
1979	651.2	-379	0.0	-272.2
1980	1,435.4	-1030	0.0	-405.4
1981	649.8	-347	0.0	-302.8
1982	-75.8	14	0.0	61.8
1983	407.9	96	0.0	-503.9
1984	317.5	159	0.0	-476.5
1985	-836.5	463	0.0	373.5
1986	-121.0	447	0.0	-326.0
1987	-505.4	-349	0.0	854.4
1988	515.3	-351	-6.0	-158.3
1989	915.4	-4	-59.0	-852.4
1990	-469.1	1362	-134.0	-758.9
1991	926.3	37	-91.0	-872.3
1992	-1,220.9	1641	-50.0	-370.1
1993	-2,222.0	1850	-139.0	511.0
1994	1,766.0	-947	5.0	-824.0
1995	2,277.0	2117	1,412.0	-5,806.0

Table 4-7. Capital Flight, Trade Misinvoicing

Total Trade Misinvoicing from Turkey, 1970-1992.

Year	Exports Underinvoicing	Import Overinvoicing	Trade Misinvoicing Total
1970	-64.8	-265.2	-330.0
1971	-100.1	-178.1	-278.2
1972	-149.3	-145.0	-294.3
1973	-179.1	-249.2	-428.3
1974	-210.6	204.4	-6.2
1975	-24.4	628.2	603.8
1976	-139.8	419.0	279.2
1977	-13.5	1,261.1	1,247.6
1978	-177.7	674.7	497.0
1979	104.3	509.1	613.4
1980	-259.8	1,657.8	1,398.0
1981	-362.0	293.2	-68.8
1982	-401.0	108.8	-292.2
1983	-373.0	129.2	-243.8
1984	-996.7	-65.2	-1,061.9
1985	-850.7	-684.4	-1,535.1
1986	-135.5	-277.7	-413.2
1987	-748.6	-428.7	-1,177.3
1988	-548.3	-306.9	-855.2
1989	897.0	1,518.2	2,415.2
1990	-477.5	1,578.3	1,100.8
1991	168.1	-386.1	-218.0
1992	-113.6	-379.8	-493.4

Table 4-7A Capital Flight, Trade Misinvoicing

Export Misinvoicing from Turkey, 1970-1992.

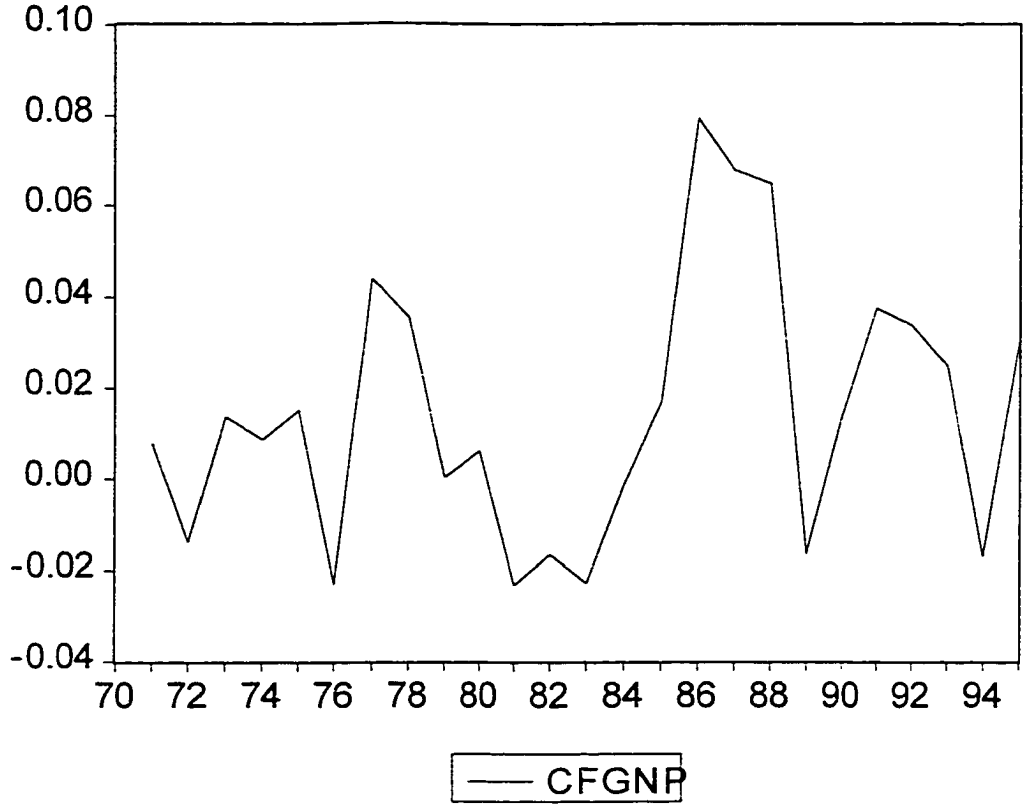
Year	Imports of World Flow from Turkey,CIF	Imports of World Flow from Turkey, FOB	Exports of Turkey FOB	**Exports Misinvoicing**
1970	588.2	523.7	588.5	-64.8
1971	647.7	576.5	676.6	-100.1
1972	834.7	743.1	892.4	-149.3
1973	1278.2	1,137.4	1,316.5	-179.1
1974	1391	1,321.4	1,532.0	-210.6
1975	1449	1,376.5	1,400.9	-24.4
1976	1916.5	1,820.4	1,960.2	-139.8
1977	1830.8	1,739.2	1,752.7	-13.5
1978	2221.7	2,110.6	2,288.3	-177.7
1979	2487.8	2,363.1	2,258.8	104.3
1980	2793.9	2,654.0	2,913.8	-259.8
1981	4518.7	4,333.6	4,695.6	-362.0
1982	5623.4	5,345.5	5,746.5	-401.0
1983	5649.1	5,359.1	5,732.1	-373.0
1984	6511.6	6,136.3	7,133.0	-996.7
1985	7512	7,107.2	7,957.9	-850.7
1986	7737.7	7,320.4	7,455.9	-135.5
1987	10029.9	9,489.0	10,237.6	-748.6
1988	11843.4	11,204.7	11,753.0	-548.3
1989	13445.5	12,720.4	11,823.4	897.0
1990	14001.3	13,246.3	13,723.8	-477.5
1991	14600	13,812.7	13,644.6	168.1
1992	15463.3	14,629.4	14,743.0	-113.6

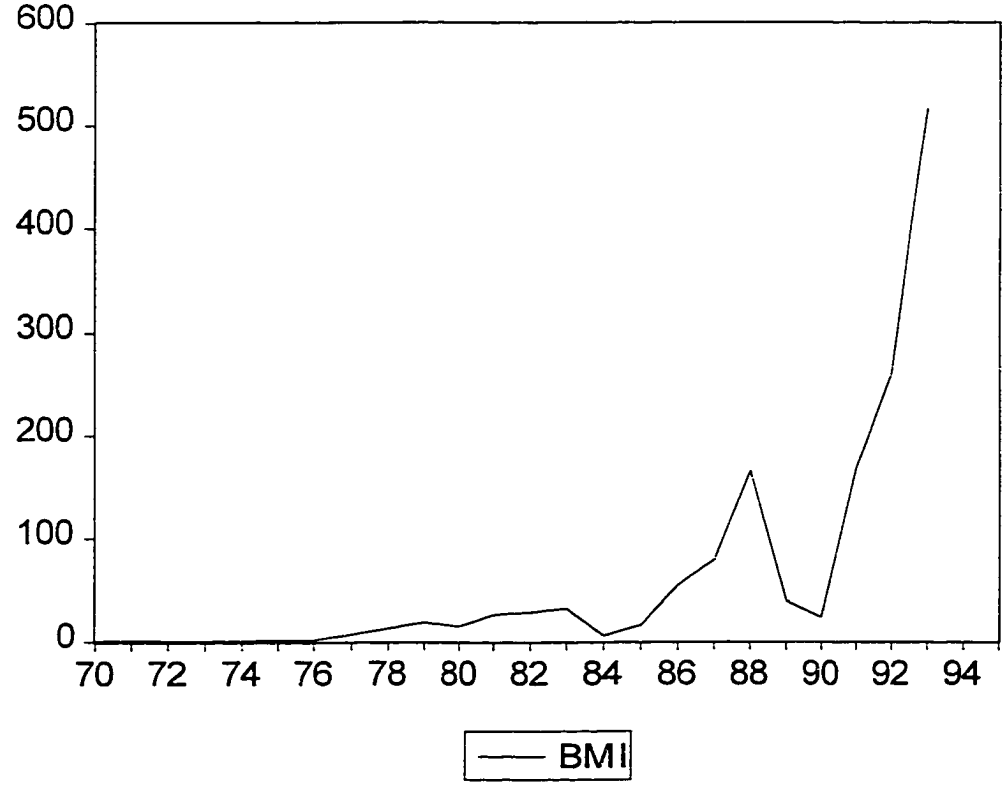
Table 4-7B Capital Flight, Trade Misinvoicing

Import Misinvoicing from Turkey, 1970-1992.

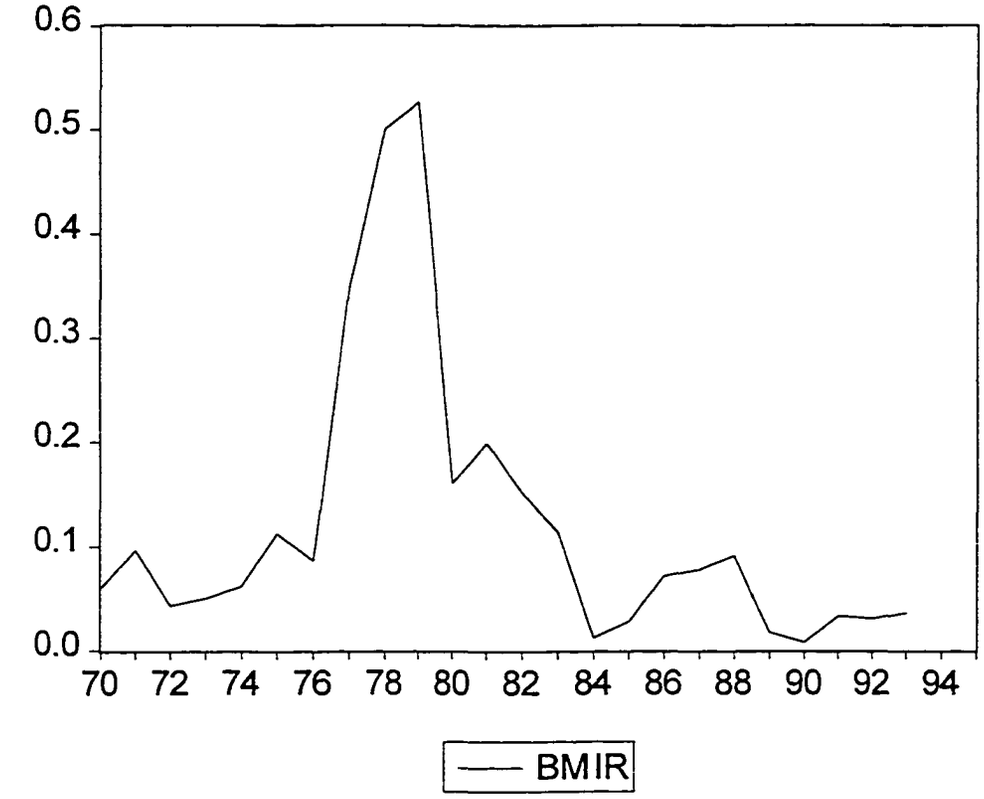
Year	Imports of Turkey from the World, CIF	Imports of Turkey from the World, FOB	Exports of World FOB	**Import Misinvoicing**
1970	888.6	791.1	1,056.3	-265.2
1971	1085.9	966.6	1,144.7	-178.1
1972	1511.8	1,345.8	1,490.8	-145.0
1973	2095.6	1,864.9	2,114.1	-249.2
1974	3776.8	3,587.8	3,383.4	204.4
1975	4737.8	4,500.9	3,872.7	628.2
1976	5129.9	4,872.8	4,453.8	419.0
1977	5796.9	5,506.8	4,245.7	1,261.1
1978	4600.4	4,370.3	3,695.6	674.7
1979	5066.1	4,812.2	4,303.1	509.1
1980	7667.5	7,283.6	5,625.8	1,657.8
1981	8931.5	8,565.6	8,272.4	293.2
1982	8800.4	8,365.5	8,256.7	108.8
1983	9187.2	8,715.7	8,586.5	129.2
1984	10671.3	10,056.4	10,121.6	-65.2
1985	11274.6	10,667.1	11,351.5	-684.4
1986	11027	10,432.4	10,710.1	-277.7
1987	14654.9	13,864.6	14,293.3	-428.7
1988	14694.7	13,902.3	14,209.2	-306.9
1989	17050.7	16,131.2	14,613.0	1,518.2
1990	24486.3	23,165.9	21,587.6	1,578.3
1991	21045	19,910.1	20,296.2	-386.1
1992	22969	21,730.4	22,110.2	-379.8

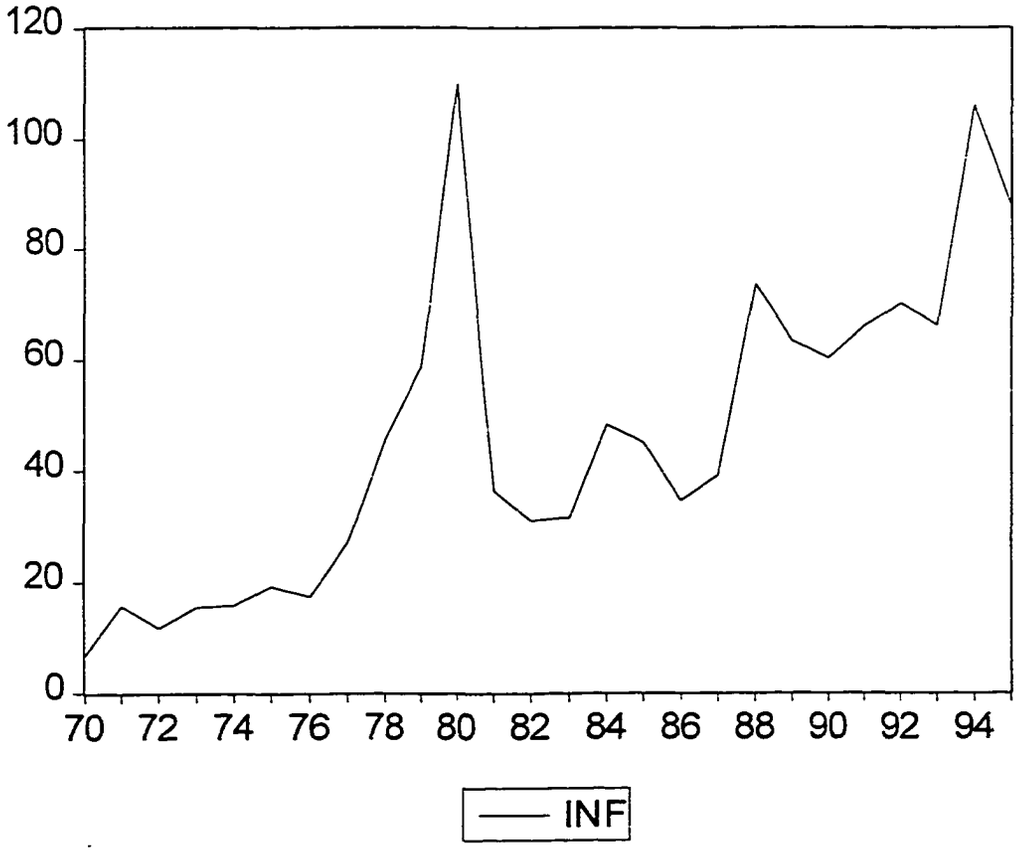
* CF/GNP from Turkey



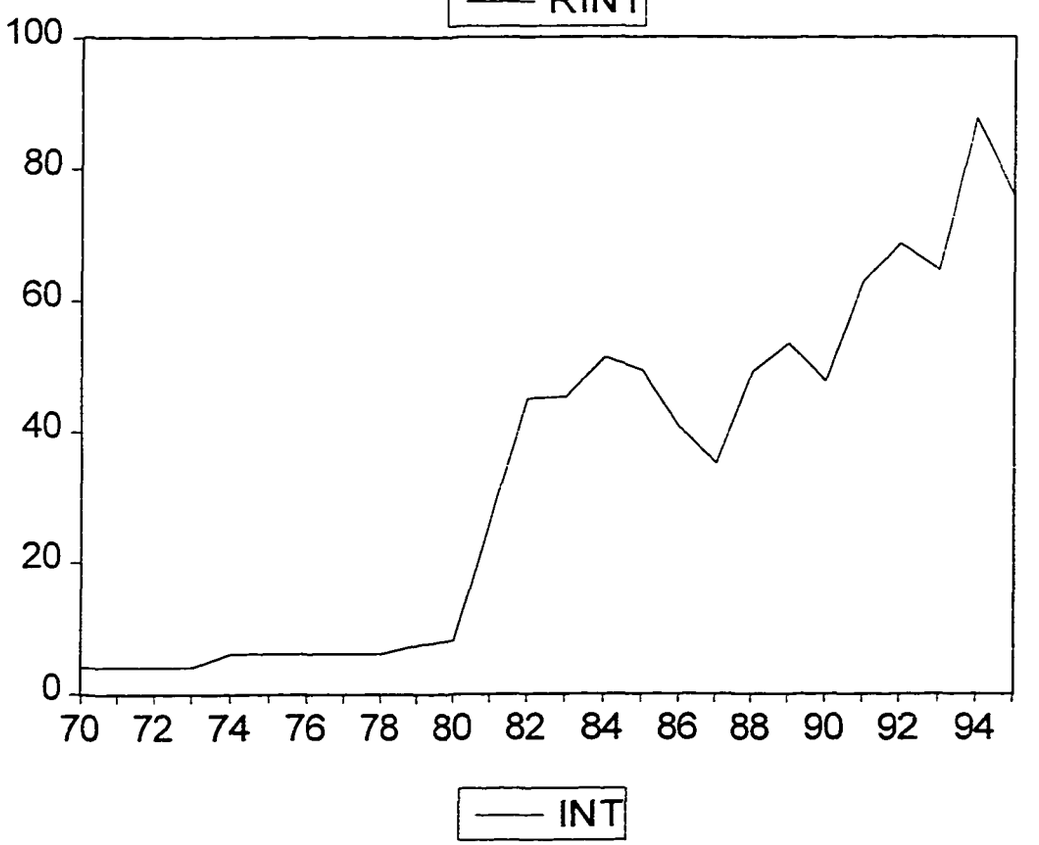


* Black Market Incentives

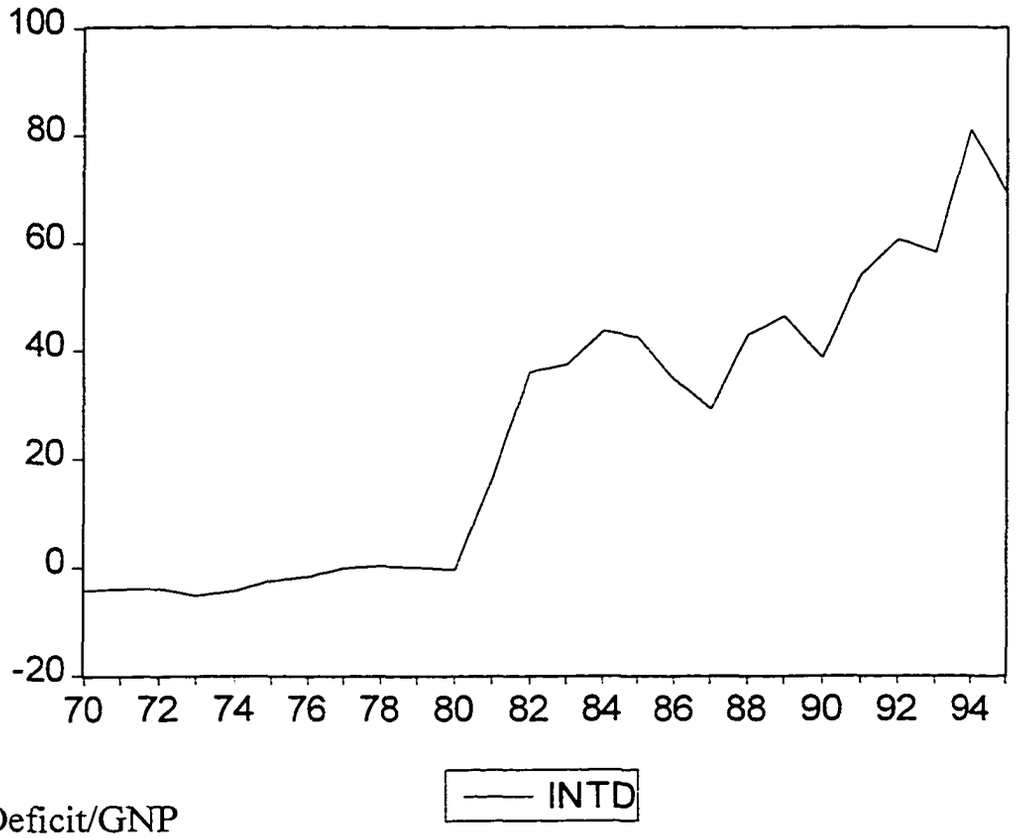




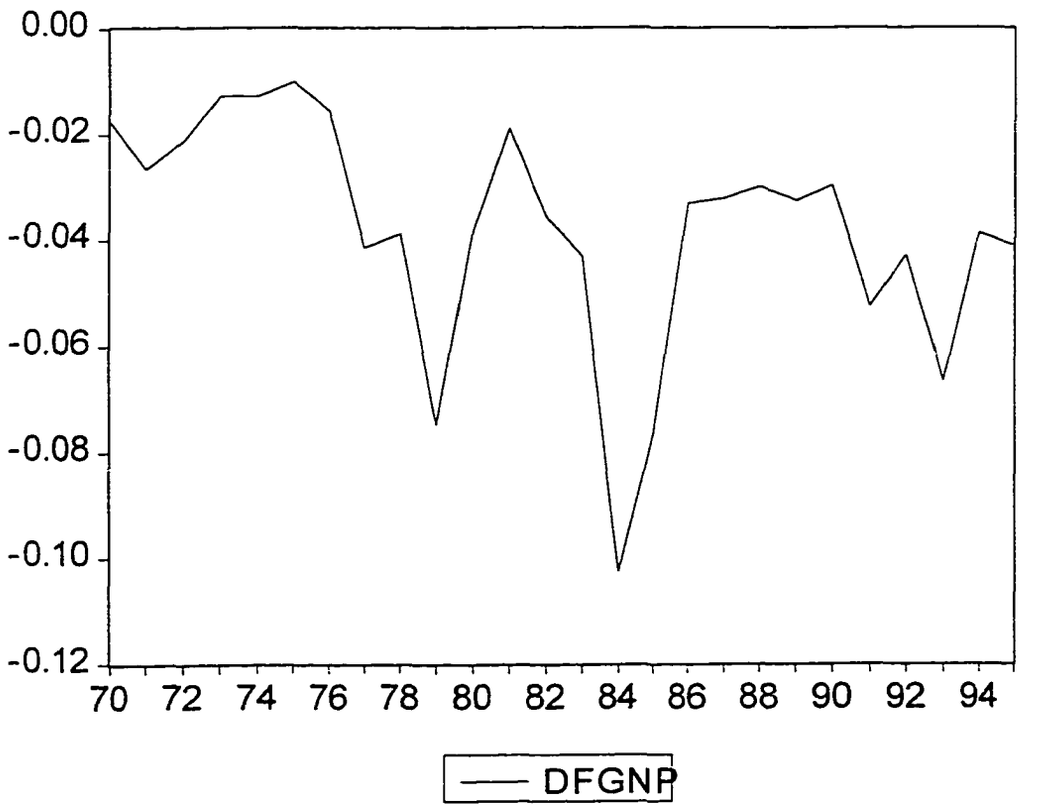
*Real Interest Rates



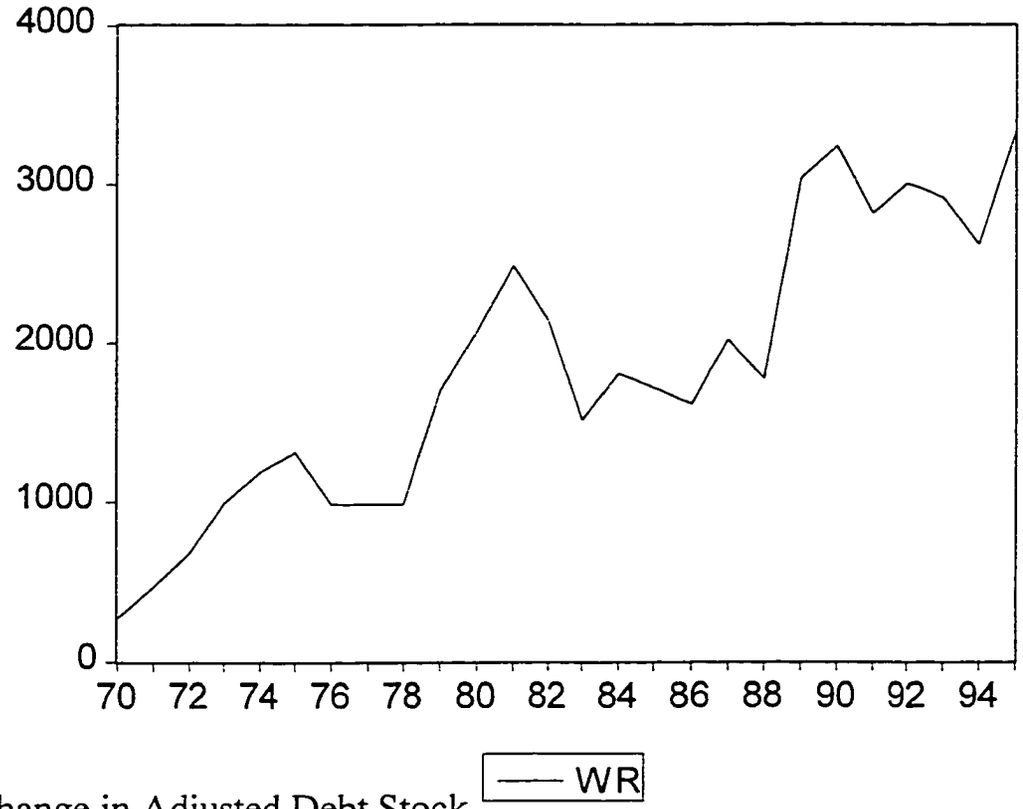
* Interest Rate Differential



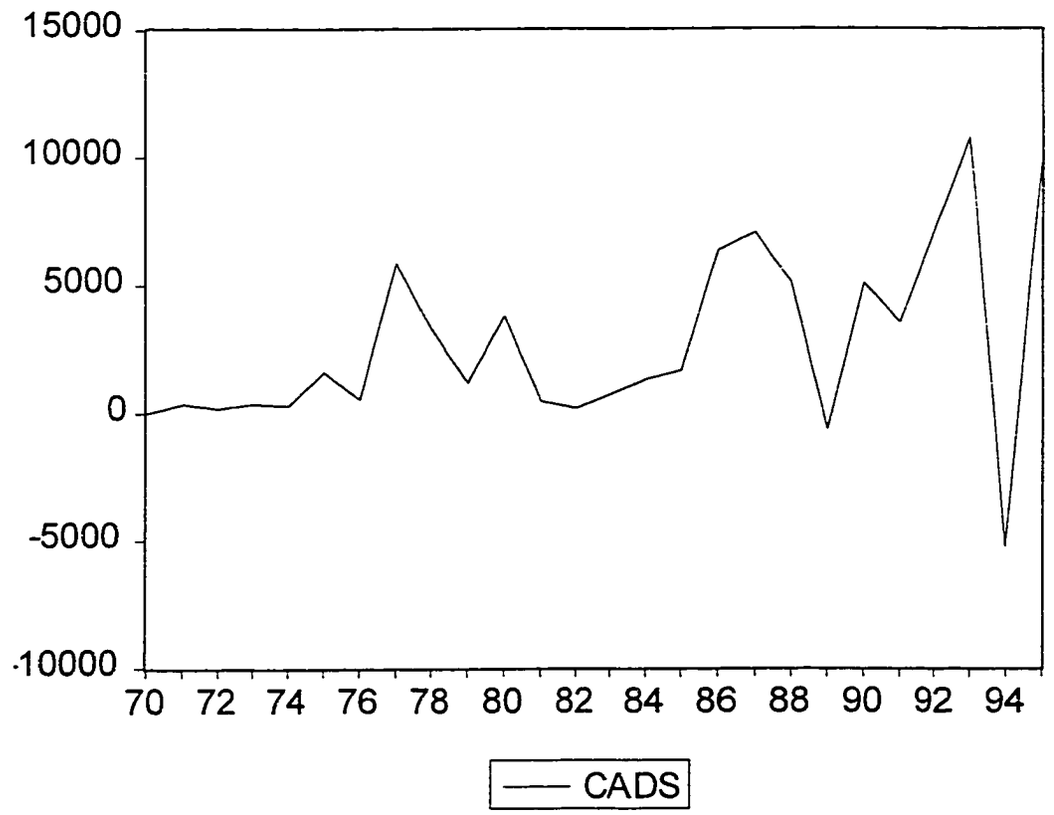
* Deficit/GNP



* Workers Remittances



* Change in Adjusted Debt Stock



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