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Do credit markets have faith in IMF imprimatur?

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Abstract

This paper examines the effect of the IMF imprimatur on the cost of borrowing in the international capital markets by investigating over 2600 loan contracts issued to public and private sector borrowers located in countries experiencing balance of payments problems between 1993 and 2001. The data are grouped into two samples. Both the samples comprise countries characterised by similar balance of payments problems, but only one of them comprise countries that have availed of IMF assistance. The IMF assisted countries paid more for short term loans and had obtained fewer long term loans compared to their non-IMF peers for the financing of similar purpose projects.

JEL classification: C1, G2, F3

Keywords: IMF, syndicated loans, emerging markets

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I. Introduction

The International Monetary Fund (IMF) has come under increasing criticism in recent years for internal contradictions in policy. For example, it is maintained by Stiglitz (2002a, p.107) that policies that are prescribed by the Fund to improve economic performance often have just the opposite effect on the economy. According to Edwards (1998), the world needs a major redesign of the international monetary system by abolishing the IMF -- which is viewed as reactive rather than proactive -- and create new institutions with the mandate and ability to help prevent major, generalized and costly financial crises. There is also concern that the Fund's policies may not be sufficiently alert to problems of increases in poverty, leading to avoidable political problems in economic restructuring.[1] For example, the head count ratio of poverty increased by 140 per cent in Indonesia between "mid-1997 and early 1999", when the country was under IMF supervision following a major financial crisis affecting much of East Asia (Chand 2003).[2] Another criticism is that the Fund may contribute to moral hazard in borrowing and lending, because it is perceived as being able to arrange lending at the last resort, and encourage risky behaviour by borrowers and private creditors in advance of crises (Joyce, 2002).

The weight of the arguments underlying above criticisms is that long term dependence on IMF prescriptions is harmful for the economic prospects of client states. The purpose of this paper is not to evaluate the arguments, but to examine whether the financial markets also take a pessimistic view of the efficacy of IMF prescriptions. We approach this question by examining the effect of IMF imprimatur on the cost of borrowing in the international capital markets by private and public sector entities located in client states, and comparing the costs for borrowers from countries that have not approached the IMF for assistance, despite the fact that they are also experiencing financial difficulties similar to those of the above client states.

[1] Even the policymakers in the IMF have began to realise the need to address the political economy of income distribution, if re-structuring is to be successful in ameliorating balance of payments constraints on growth. However, the level of understanding of these issues within the IMF may not be adequate, as observed in a report by the Independent Evaluation Unit of the IMF (IMF, 2002)

[2] The distributional effects of IMF programmes appear to depend on an indebted country's level of per capita income at the time of entry under the IMF umbrella. The poor in countries which have lower per capita income become poorer faster than their counterparts in countries with higher per capita income after imbibing IMF prescriptions (Grauda, 2000). Another interesting feature of income distribution is that the labour's share of income is lower in countries under IMF programmes than in other countries with similar per capita income (Vreeland, 2002).

It is indeed the case that countries which have a history of debt re-scheduling find it more expensive to borrow money in the capital markets (Eichengreen and Mody 2000; Ozler 1993). Some of these countries may approach the IMF for assistance following a period of financial difficulty. Any assistance that is provided is conditional on an agreement from the recipient country to revise economic policies to obtain a seal of approval from the IMF. An expectation is that the financial markets would respond by making more credit available, and on terms that are more favourable, than would otherwise be the case. The literature does not provide systematic empirical evidence as to whether the above expectation is fulfilled. The literature simply suggests that a country in receipt of assistance from the IMF finds it more expensive to borrow in the private markets than developing countries in general (Altunbas and Gadanecz 2003).

Presumably the decision to seek assistance from the IMF is perceived as a harbinger of "potential problems in the economy" (Altunbas and Gadanecz 2003). It may also be the case that private lenders may be engaging in riskier projects in counties under the IMF's umbrella in the expectation of a bailout by the Fund in case of default. However, these are not the only plausible explanations. It may also be the case that there is reluctance on the part of private lenders to put faith in the efficacy of IMF prescriptions. This particular line of investigation entails a comparison of IMF-assisted developing countries with a subset of other developing countries that are also faced with similar balance of payments problems but with one difference. They have eschewed IMF assistance. The object of this paper is to carry out an investigation using a large dataset of lending contracts of the effect of the IMF stamp of approval on the price of loans.

The paper is organised as follows. Section II briefly reviews the literature on the increasing involvement of the IMF in the emerging markets when these markets run into financial difficulties. Section III outlines the salient features of the dataset used in our study, and explains our methodology. In Section IV the results are discussed and Section V concludes by summarising the findings.

II. IMF Policies: The Background

The International Monetary Fund was originally set up with a mandate to provide assistance to member countries facing short-term problems in the foreign exchange markets

(Goldsbrough et al, 2002). Help was available to both developing and industrialised nations alike. But in recent years the Fund has become increasingly active in long term development policies. During 1971-2000, 29 countries out of 128 borrowers were prolonged users[3] and another 15 were very prolonged users (IMF 2002)[4]. Stiglitz (2002b) argues that the mandate of the IMF, to provide liquidity to countries facing temporary economic downturn, is at variance with the task into which the Fund has allowed itself to be drawn. In consequence, the Fund's prescriptions, based on its traditional approach to short term problems with currencies, are often ill-advised. Short term problems in the balance of payments can sometimes be addressed through contractionary fiscal policies, but the response to structural imbalance in an economy requires an understanding of development policy. Critics argue that the Fund does not have that understanding and thus it resorts to prescriptions that may, at best, work to smooth out short term difficulties in the balance of payments. The consequence is that these policies are counter-productive for making the economic adjustments needed for economic growth (Stiglitz 2002a). For example, a study by Prezeworski and Vreeland (2000) reveals that participation to IMF programs lowers growth rates for these countries as long as they remain under a program.

The critics can be grouped into three categories. The first group argues that the Fund does not appreciate the need to reconcile conflicting political tensions in the design of economic policy. Thus the policies that are prescribed are not always feasible to implement properly. The second group argues that the Fund's policies lead to greater financial instability. Finally, there are those who focus on the moral hazard entailed in borrowing under the aegis of the Fund. All the three groups of critics conclude that the embrace of the IMF is not conducive to long term prosperity. These arguments are outlined below, but without critical evaluation of their relative merit. Our objective is simply to examine if the financial markets, in their loan pricing decisions, place faith in the critics or in the IMF.

i. Political economy

Easterly (2003) investigated the impact of various structural adjustment programs and reported that such programs lower the impact of economic fluctuations on poverty, i.e., economic expansions following these adjustments benefits the poor less but contractions

[3] Prolonged users are defined as countries engaged in IMF-supported programs for at least 7 years out of any 10.
[4] Very prolonged users are defined as countries engaged in IMF-supported programs for 15 or more years.

resulting from structural adjustment also hurt the poor less. According to Goldsbrough et al (2002), one possible explanation as to why these policies fail to deliver growth is the linkage of aid to the acceptance of IMF supported programmes. The linkage raises the stakes at program negotiations to the point of putting strong pressure on both the country authorities and the IMF to reach an agreement, even though both parties may have doubts about the program's feasibility. The quality of the seal of approval is thus compromised by the pressure to reach an agreement.

Another aspect of the above idea, that the quality of IMF programs is diluted due to political exigencies of the process of reaching decisions, is examined by Gould (2003). The Fund itself provides only a fraction of the amount of money that a country needs to bring its external account into balance, and also to implement the economic policies recommended by the Fund. The IMF relies on supplementary external financing to ensure the success of its programmes. This gives the supplementary financiers leverage over the design of the Fund's programmes. Too many contradictory pressures are faced in the design of policy, and the result is less coherent than it might be otherwise.

ii. Financial instability

Another argument made by critics is that IMF programmes often entail the type of financial liberalisation that causes greater fluctuations in short-term capital inflows and outflows, thereby leading to greater volatility in the financial markets in the developing countries (Kas 2003, Rodrik 1998, Stiglitz 2000 and 2003). Kohler (2003) at IMF categorizes the volume and complexity of these flows and explains why they raise concern about, what he calls, crises vulnerability.

A more favourable view of these short term flows is taken by those who believe that the IMF's seal of approval encourages the flow of capital into activities that enhance the allocative efficiency of finance capital. An IMF-approved loan programme, according to this view, serves as a good housekeeping seal of approval, increasing the creditworthiness of debtor countries and provoking an automatic inflow of outside financing. Marchesi and Thomas (2000) finds evidence that the presence of an IMF program serves as a signalling device of a country’s willingness and ability to undertake substantive reform. Private creditors are then more willing to reschedule the country's external debt. However, this alleged

catalytic effect on private capital inflow is not observed. It is reported in the literature that there is surprisingly little evidence that IMF lending to a country was followed by an increase in private credit flows (Bird and Rowlands 1997, Ergin 1999, Edwards 2000, Rowlands 2001, Joyce 2002). The literature in the above genre seldom considers the cost of credit, an omission that is addressed in our paper, when monies are raised in the international capital markets, and instead focuses on the size of the private capital inflow.

iii. Moral Hazard

Finally, there is concern about moral hazard when private institutions are brought under the umbrella of the IMF to design and implement economic reform. According to Ann Krueger, the deputy managing director of the IMF (Krueger 2001), private institutions may be encouraged to lend and invest more recklessly due to belief that the Fund will ensure that debtors can repay the loans.

The literature analyzes the concept of moral hazard from two perspectives, moral hazard by creditors and moral hazard by debtors. Suppose that creditors refuse to roll over maturing debt in a debt-distressed country working with the IMF. The Fund, fearing that the creditors' action could spark off a financial crisis and impose additional cost on the country and also on the credibility of the IMF, may provide extra resources that can be used to finance creditors' exit. Creditors may anticipate such a response, that the Fund would bail them out in case the borrower defaults. Therefore, creditors may allocate resources with less concern about project risk, thus increasing the possibility of the emergence of future crises in borrowing countries (Dreher 2004). Recent studies have focused on Mexican, East Asian and Russian crises to find evidence of moral hazard (Zhang 1999, Eichengreen and Mody 2000, Tillmann 2001, Evrensel 2002, Dell'Arricia, Schnabel and Zettelmeyer 2002, Kamin 2002). The literature is not unanimous about the precise impact of IMF policies on the moral hazard in lending and borrowing.

III. Data and Methodology

i. Data

We have a sample of over 10 thousand syndicated credit facilities granted to public and private sector borrowers in developing countries between 1993 and 2001. There are in excess of 6800 single deals in this dataset. From this data, a total number of 2,665 loan contracts are extracted for the study. These contracts are identified as pertaining to countries that are facing serious balance of payments problems. These 2,665 contracts are then broken down into two sub-samples. The first sub-sample of 1,580 credit facilities pertain to countries which have availed of IMF assistance by operating the General Resources Account (GRA). The second sub-sample containing 1,085 loan accounts pertain to countries that have also experienced similar intensity of balance of payments problems as the first group of countries, but there is a difference. Unlike the first group of debt-distressed countries, this second sub-sample comprise countries that have not sought to operate the General Resources Account. They have not called upon the IMF for assistance.[5] The above two groups of emerging countries selected for the study are described in Appendix 1. A comparison of the debt intensity indicators of the two sample groups can be found below in the section entitled Descriptive Statistics on Country Basis.

Each of the above loan contracts identifies the microeconomic variables and the country from which the loan application originates. For example, above data tell us what the loans were for, whether they were for the construction of infra-structure, for general corporate purposes or for specific project finance. Some of the state borrowers are identified as such, but the contracts are not clearly demarcated between borrowing by state and private sector entities. The full set of codes listing the purposes of the loans is given in Appendix 1. Macroeconomic data for periods relevant for the contracts are mostly obtained from the International Financial Statistics and World Economic Outlook, which are both published by the IMF. Some of the data are gathered from the BIS-IMF-OECD-World Bank Joint Statistics on external debt.

The price of loans in the literature is defined as the spread charged over LIBOR, EURIBOR or similar pricing references used by international lenders (Cantor and Packer 1996, Kamin and von Kleist 1999, Kleimeier and Megginson 2000). We use a more inclusive concept of

[5] In subsequent pages, we talk about two samples to denote the two sub-samples described above.

loan price, the Drawn Return, which is based on the full economic cost of borrowing. It is the annual return that will accrue to a senior fund provider if the facility is drawn for the entire period of its existence. It includes the spread as above, but it also counts the fees payable for utilisation, participation, provision of facility and underwriting.

ii. Descriptive Statistics on Country Basis

The two groups of countries that are compared here, one that is under the aegis of the IMF and the other that has not sought assistance from the IMF, have similar levels of debt-to-GDP and Short-term debt to total debt. Table 1 below provides a more formal comparison, employing a T-test on the differences of the mean values.

Table 1

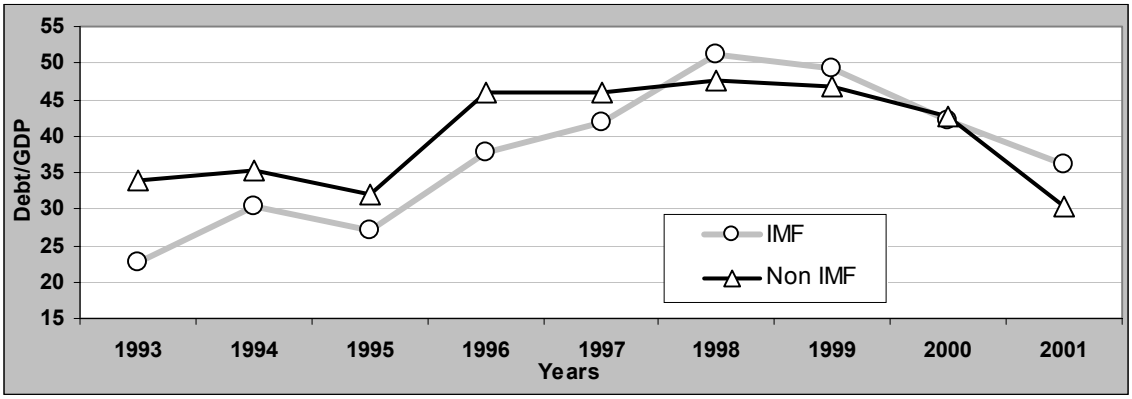
Mean debt intensity indicators of emerging countries with and without IMF assistance between 1993-2001*

	IMF assistance	Non-IMF assistance
Debt to GDP	38.95	41.05
Short-term debt to total debt	48.06	45.52
T-Test for mean difference	P-Value	Significance
Debt to GDP	0.742	Not significant
Short-term debt to total debt	0.425	Not significant

Source: Authors' calculations from data

A more detailed comparison between the two sets of countries can be made by reference to the charts below. Trends in the debt-to-GDP ratios are compared in Chart 1. In 1993, this ratio for countries seeking IMF assistance was around 17%, but the corresponding figure for the second group of countries was around 25%. By the end of the data period, in 2001, the position is reversed. The IMF-assisted countries are in a worse position.

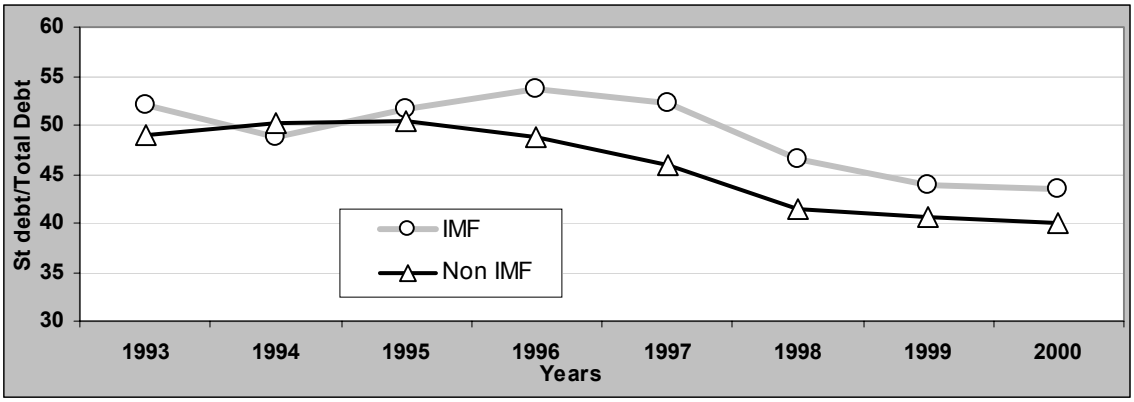
Chart 1: Debt to GDP ratios of the two samples, with and without IMF assistance, between 1993 and 2001



Source: Authors' calculations from data

A similar pattern can also be observed in Chart 2 for the ratio of short term debt to total debt. The two groups had similar short term to debt levels, around 51%, in 1993. At the end of the period in 2001, although both groups had been successful in reducing the ratio, the countries that were assisted by the IMF were less successful in reducing the ratio.

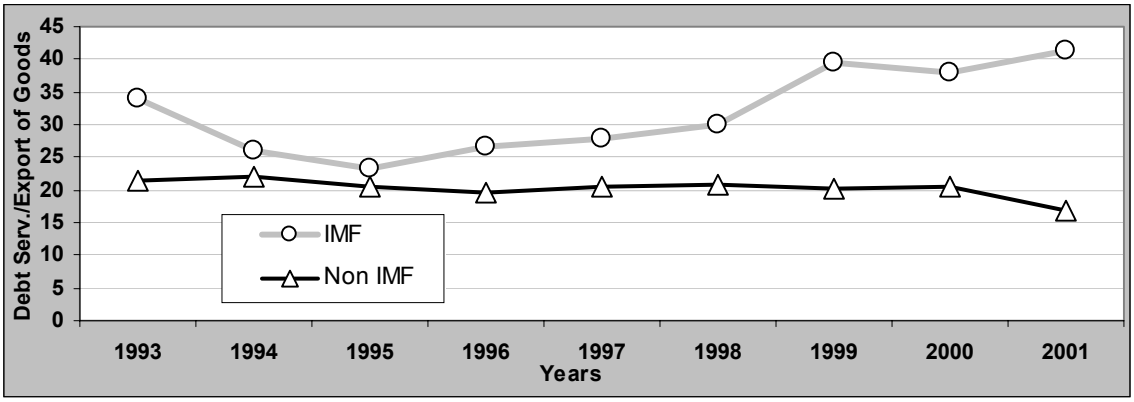
Chart 2: Short term debt to total debt ratios of the two samples, with and without IMF assistance between 1993 and 2001



Source: Authors' calculations from data

The above patterns are also repeated when the ratio of debt service payment to export income is examined in Chart 3.

Chart 3: Debt service to exports of good and services ratios of the two samples, with and without IMF assistance between 1993 and 2001



Source: Authors' calculations from data

The gap between non IMF and IMF countries was around 15% at the beginning of the period and then the gap increased to around 25% at the end of it. A country's export performance, income from the outside world, is an indicator of how effectively it can repay its foreign debt. As mentioned above, non IMF countries managed to decrease their debt relative to GDP[6] and increase their export income, while IMF assisted countries failed to do so. The characteristics of the loan contracts can be gleaned from Table 2 below.

Table 2
Descriptive statistics on loan characteristics for the two samples, with and without IMF assistance (1993-2001)

Countries with IMF assistance

Variable	No of observations	Mean	Standard Dev.	Min	Max
drawn (basis points)	1580	226	151	2.38	1275
maturity (year)	1580	3.98	3.69	0.1	30
loan size ($ million)	1580	126	211	0	6100

Countries without IMF assistance

Variable	No of observations	Mean	Standard Dev.	Min	Max
drawn (basis points)	1085	125	98	7	1000
maturity (year)	1085	4.97	3.11	0.1	25
loan size ($ million)	1085	104	168	0.02	3500

Source: Authors' calculations from data

[6] Either because they have decreased their debt or they have increased their GDP. In any case this indicates an economic progress in the country.

Average Drawn Return for the first sub-sample of emerging countries, those with IMF assistance, is 226 basis points, some 101 basis points above the corresponding figure for the second sample comprising of countries that are not seeking IMF assistance. The loan size is US$ 22 million higher on average in favour of countries with IMF assistance, but the maturity of an average non-IMF country syndicated loan is 1 year longer. At first glance, IMF assisted countries seem to pay higher price for the loans even though they are borrowing shorter term. On the other hand IMF assisted countries appear to obtain larger loans.

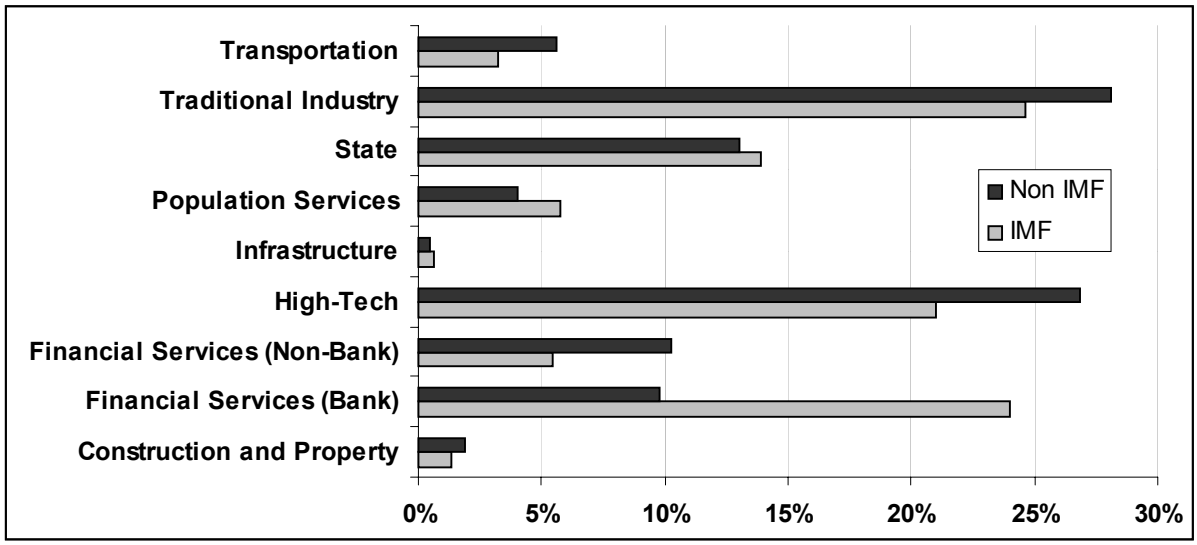
iii. Descriptive Statistics on Business Sector and Loan Purpose

The data allow us to carry our analysis one step further to look at loans at the microeconomic level, to be able to compare the two groups according to the borrower's business sector and according to the purpose of each loan commitment[7]. Chart 1 provides an indication of the sectoral composition of loans. We note that around 35% of syndicated loans in the IMF assisted countries are granted to financial services industries, while the corresponding figure is only 16 per cent in the non-assisted sample. One notable aspect of the data is that banks appear to be amongst the major customers in the syndicated loan market in countries working with the IMF, but the picture is different in countries outside the ambit of the IMF. Table 3 reveals that, in the latter group of countries, the non-bank financial services sector raises more loans in the above market.

In certain cases, in order to be able to attract foreign funds into the economy, governments give guarantees to the foreign liabilities of the banking sector in IMF assisted countries[8]. Moral hazard problems arise because international lenders appear to be lending to the financial sector often under government guarantee, rather than lending directly to domestic enterprises, in countries under IMF program. The financial sector then channels these funds to domestic enterprises. There might also be benign cases where domestic banks raise loans in the international syndicated loan markets for domestic enterprises which are too small to access the international capital markets on their own.

[7] Different business sectors are group into 7 main categories. The detailed list is given in Appendix 2.
[8] Such as the cases in Turkey (IMF 2001), Indonesia and Thailand (IMF 1999).

Chart 1: Sectoral composition of loans issued to the two groups of sample countries, with and without IMF assistance



Focusing on Table 3, we note that banks in Sample 1 countries, those working with the IMF, obtain loans of shorter duration than banks located in the second sample of countries, but we do not have adequate evidence to conclude whether it is a supply or demand led phenomenon. Moreover, banks in Sample 1 pay more than twice as much spread than their counterparts in Sample 2. This difference in the average cost of loans can also be observed for borrowing by the non-bank financial services sectors. These loans raised in foreign currency by the financial sector are sometimes used to fund the export sector in developing countries. Our data reveals that 15% of loans issued to the bank sector in IMF assisted countries are channelled to export industries. With more expensive and shorter maturity funding, the emerging market economies in Sample 1 may become even more vulnerable to financial crises. Their goods and services sectors are placed at a disadvantage in the export markets with respect to business located in the Sample 2 countries.

Table 3

Descriptive statistics of loan characteristics for the two samples, with and without IMF assistance between 1993-2001, according to borrower's business

		With IMF					Without IMF				
Business Sector	**Variable**	**Num. of Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**	**Num. of Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Construction and Property	Drawn	34	246.0	99.4	63.1	475	28	127.7	67.4	42.8	387
	Maturity		4.1	2.6	0.1	15		3.3	1.9	0.5	15
	Loan size		56.1	45.6	0.1	512.1		47.1	53.7	1.2	450.6
Financial Services (Bank)	Drawn	361	206.3	155.0	37.5	700	105	102.6	71.1	15	387.5
	Maturity		1.6	1.4	0.2	13		4.3	2.4	0.1	25
	Loan size		94.2	144.1	1	2022.1		66.1	47.4	1.1	2300
Financial Services (Non-Bank)	Drawn	90	236.6	161.7	25	700	104	101.1	49.0	30	300
	Maturity		3.6	3.2	0.3	18		3.5	1.8	0.5	16
	Loan size		86.3	94.4	1.7	560		69.8	79.0	2.5	1050
High-Tech	Drawn	237	216.1	161.7	2.4	1275	210	149.2	122.2	7	1000
	Maturity		4.2	2.8	0.3	13.5		4.7	2.6	0.2	13.5
	Loan size		125.6	169.3	0.2	1750		90.5	95.1	0.3	1900
Infrastructure	Drawn	8	304.9	196.0	80	600	2	125.0	0.0	37	134
	Maturity		5.0	2.5	1	20		12.0	1.4	1	13
	Loan size		114.5	71.4	15	399.5		169.0	15.6	7.9	884.4
Population Services	Drawn	72	344.7	182.5	25	750	42	88.3	64.1	45	571.1
	Maturity		3.0	2.0	0.3	10		5.0	2.4	0.9	12
	Loan size		113.7	163.3	0.4	1100		209.3	293.0	4.5	287
State	Drawn	77	201.7	127.6	20	580	44	88.3	64.1	24.3	356.3
	Maturity		4.7	4.3	0.3	17.8		5.0	2.4	0.5	21
	Loan size		256.6	486.5	1.4	6100		209.3	293.0	2.2	1350
Traditional Industry	Drawn	309	241.5	142.9	2.8	700	250	138.9	101.6	15	550
	Maturity		3.9	2.8	0.2	16		5.0	2.5	0.3	15
	Loan size		113.2	148.4	0	1152		79.6	110.1	0	2416
Transportation	Drawn	49	199.6	157.8	2.8	700	50	97.1	64.6	15	550
	maturity		6.9	4.0	0.2	16		8.7	3.4	0.3	15
	loan size		93.7	98.2	0	1152		79.6	81.5	0	2416

Note: Drawn are basis points, Loan size are million US dollars, Maturity year

Source: Authors' calculations from data

Another observation is that the size of loans that the state sector obtains in the IMF supported countries is larger on average[9]. Lenders appear not to hesitate to fund the state and government institutions in countries working with the IMF with larger sized loans, but charging them twice as much for loans issued to the state sector in countries outside the IMF umbrella, admittedly for smaller amounts. In both the sets of countries, a significant fraction of the funds obtained from syndicated loan markets is used for export industry financing. In IMF assisted countries export financing loans constitute 34 per cent of all loans taken out by the state sector while in the sample of non assisted countries this ratio amounts to 55 per cent. Once again, as in the case of banking sector borrowing, these higher costs of borrowing may place the IMF-assisted countries at a disadvantage in the export markets when competing with their peers

In all sectors, with the exception of high tech industries, borrowers from countries under the aegis of the IMF pay at least 100 basis more over LIBOR than their peers. The maximum difference is 256 basis points, more than twice the amount paid by their peers, in Population Services[10]. Lending contracts issued to entities located in countries under the IMF umbrella are for shorter duration than those issued to entities located in the second sample of countries, those that are not in an IMF programme. In particular, the maturity period for loans issued to the banking sector of the two groups differs significantly. Thus the IMF's imprimatur appears to be associated with larger loans, but for shorter duration and at a higher cost. If this is supply driven, then it suggests a remarkably cautious approach by international bankers, perhaps signalling lack of confidence in the efficacy of IMF programs and economic policy advice. A similar picture about the cost of funds emerges from an examination of the data for project finance (See descriptive statistics by loan purposes in Table 6, Appendix 3). Funds borrowed for project finance are more expensive in the IMF supported countries.

iv. Methodology - Loan Pricing and Developing Country Macroeconomic Indicators

Loan pricing decisions are based on the purpose of the loan and the macroeconomic environment of the country. There are only a few published studies that focus on the effect of macro economic indicators of a country on the pricing of loans and bonds raised by entities resident in the country. Eichengreen and Mody (2000) is an important contribution to this

[9] It should be noted that our data do not allow all state borrowings to be identified as such. Some of the contracts do not specify whether the borrower is a state enterprise or a private enterprise.

literature. We modify their approach in being able to draw on a larger set of data: there are more contracts and richer details concerning these contracts.

Edwards (1986) studies the effects of certain macro-economic variables on spreads for the developing country foreign borrowing[11] using a data set consisting of 900 Eurocurrency bank loans granted to developing countries between 1976 and 1980. He finds that countries with high debt to GNP ratio pay higher prices for loans. This conclusion is strengthened with the finding that a higher debt service to exports ratio significantly leads to higher loan prices, but growth rate of the country does not appear to have a significant effect on loan prices. The ratio of gross investment to GNP is found to have a negative impact on the spread, indicating that the level of the country risk premium is affected by the way in which the borrowed funds are spent. International liquidity (measured by the ratio of reserves to GNP) held by a country appears to play no significant role in the determination of the country risk premium. Finally, both maturity and loan size are reported to have a negative relation with loan spreads in emerging-market borrowing.[12]

Ozler (1993) investigates the impact of borrowers' repayment history on credit-market access and prices of loans. She employs a data set comprising 1,525 commercial bank loan contracts raised from Eurocurrency credit markets by entities resident in 26 emerging countries during the 1968-1981 periods. Unlike Edwards above, she finds that a higher real GNP growth rate pushes up the cost of borrowing. There is also another difference. She finds that longer term loans are more costly. Like Edwards, Ozler also employs a dummy variable for IMF presence in the borrowing emerging country and finds a positive relationship with loan spreads with an estimated impact of 30 basis points. She also examines the cost of foreign borrowing when the ratio of reserves to GNP is increased. There is an inverse relationship.

Ozler and Edwards report contradictory effect of growth rates and maturity of loans on the cost of borrowing. Using a larger sample of just over five thousand syndicated loans containing richer information about the individual contracts, Eichengreen and Mody (2000)

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[10] This sector consists of firms mostly with the main business related to health, legal and leisure services. A more detailed subdivision is given in Appendix 2.

[11] The data are not differentiated between state and private sector borrowing.

[12] Kleimeier and Megginson (2000) analyze syndicated loans between 1980 and 1999 and finds evidence that loan size has a negative relationship with pricing while loan maturity significantly and positively related to the price. Regarding to external debt to export ratio effect on bond spreads Cantor and Pecker (1996) finds a positive relationship between the two by analyzing 35 Eurodollar bond of debtor countries. Neither of these studies makes a distinction between developed and developing nations.

clarify the results. Countries with rapid growth and high levels of bank credit pay a higher price for their borrowing[13]. But a country with a high growth rate that also has the ability to repay, as measured by exports to debt service ratio, can reduce spreads. They also report that the loan spread declines with the amount borrowed and it rises with loan maturity. Entities located in countries which have high debt levels (measured by the total debt to GNP ratio), a history of debt rescheduling, and a higher debt service obligation in relation to earnings from exports, pay higher spreads than comparable entities in other countries. Low values of the ratio of international reserves to short-term debt significantly raise spreads. A large share of short-term debt in the country's total outstanding bank debt has a strong, positive impact, that is also statistically significant, on spreads. Eichengreen and Mody (2000) comes down on the side of Edwards (1986) and reports a negative relationship between maturity and loan spreads

Altunbas and Gadanecz (2003) builds on the above study by analysing an even larger data set comprising 5,010 syndicated loans granted to both public and private sector entities in developing countries between 1993 and 2001. Their findings are similar to those reported in Eichengreen and Mody (2000). Altunbas and Gadanecz (2003), like Ozler (1993) before them, also controls for the IMF presence, and report that this presence is associated with increased cost of borrowing. None of these studies control for the IMF presence by comparing the outcome of IMF presence with the absence of the IMF umbrella for two otherwise similar groups of countries. This is done in the present study.

To investigate the determinants of loan prices and to test the effect of the market's perception of the potential value of IMF imprimatur, the following equation is estimated;

$$\ln drawn = \beta_0 Intercept + \beta_1 maturity + \beta_2 debtgdp + \beta_3 tdstoxgs + \beta_4 restogdp + \beta_5 st_tdebt + \beta_6 invgdp + \beta_7 credgdp + \beta_8 growth + \beta_9 cpi + \beta_{10} impexgdp$$

The independent variables are selected from the literature reviewed above, and attention is paid to ensure that the explanatory variables capture the measures of solvency, liquidity, economic growth and trade openness of the countries under investigation.

[13] Authors explain that as a result of growth rates fuelled by the expansion of domestic credit were viewed by the market with a concern.

Debt to GDP (debtgdp) and ***debt service to export of goods and services (tdstoxgs)*** ratios are the two solvency parameters. High values of these ratios are expected to increase the price of loans for borrowers. ***International reserves to GDP (restogd)*** is a liquidity variable. Higher reserves to GDP ratio is expected to have a negative impact on the price of foreign loans. ***Short term external debt to total external debt (st_tdeb)*** ratio is another way of measuring the liquidity of borrowers. A high level of short-term debt relative to total debt is expected to decrease the creditworthiness of the borrower and increase the cost of borrowing. The ratio of ***the sum of imports and exports to GDP (impexpgdp)*** is included in the equation to detect the effect of economic openness of a borrowing country on the price of loans. An economy that is more integrated with the world economy is expected to attract lower prices. The ***Investment to GDP (invgdp)*** ratio***,*** and the ***rate of inflation (cpi)*** are included to see if lenders take into account expected changes in macroeconomic indicators in the borrower's country. Higher investment to GDP might indicate a distressed country's willingness to improve its economic environment. Potential creditors may respond by charging lower loan spreads from LIBOR. The ***Growth rate (growth)*** and ***bank credit to GDP (credgdp)*** ratio and are included to measure the economic potential of the country. A higher growth rate is expected to have a lessening effect on loan costs. Finally, as a microeconomic characteristic of each single loan deal, ***maturity*** is included in the equation to see the effects of long and short term borrowing on the price of the loan.

IV. Results and Discussion

The countries in our two samples can be grouped into those that are under the IMF umbrella (1,580 loan contracts), and those that are not (1,085 loan contracts). However, both of these groups have experienced similar intensity of deficit, as indicated by measures described in Table 1, in their balance of payments. The object is to see if applicants from the former group of countries enjoy a lower rate of interest in view of their ability to demonstrate the IMF imprimatur. The results are presented in Table 4.

Maturity is significant in both groups of countries. It is negatively related with price of loans in the sample of countries in receipt of IMF assistance and positively related to the price of loans in the other sample. This result suggests that entities located in IMF assisted countries either have difficulty obtaining long term loans or do not seek long term loans. This result is in line with the descriptive statistics presented above in Table 3. If it is the latter, then the

IMF advisors take the view that the role of the IMF is to help tidy over short term problems. Since these countries in our sample have remained under the umbrella of the IMF for a very long time, this view does not appear to accord with the need for a vision about the long term. If it is the case that these countries have less success than those in the other sample outside the IMF umbrella in obtaining long term loans, then it would appear that the financial markets do not have much confidence in the IMF prescriptions.

Table 4

Regression results for emerging countries with and without IMF assistance

	Emerging countries with IMF assistance			Emerging countries without IMF assistance		
Variable	Coefficient	Standard Error	P Value	Coefficient	Standard Error	P Value
Maturity	-0.0191	0.0050	0.0000	0.0227	0.0066	0.0010
Debt to GDP	-0.0085	0.0019	0.0000	-0.0063	0.0016	0.0000
Debt service to export of goods and services	0.0013	0.0008	0.1210	0.0119	0.0041	0.0040
International reserves to GDP	0.0098	0.0064	0.1270	0.0036	0.0040	0.3650
Short term external debt to total external debt	-0.0052	0.0022	0.0180	0.0084	0.0030	0.0060
Investment to GDP	-0.0126	0.0053	0.0180	0.0045	0.0063	0.4760
bank credit to GDP	-0.0009	0.0017	0.5770	-0.0012	0.0020	0.5510
Growth rate	-0.0363	0.0054	0.0000	-0.0639	0.0082	0.0000
Sum of imports and exports to GDP	-0.0052	0.0006	0.0000	-0.0051	0.0017	0.0020
Inflation	-0.0005	0.0002	0.0240	0.0060	0.0033	0.0670
Constant	6.8032	0.1741	0.0000	4.7676	0.2265	0.0000

Note: Number of observations in drawn spread regression for countries with IMF assistance is 1438, for countries without IMF assistance is 1030. F-tests are significant at the 1% level

The first of the two solvency measures, *debt to GDP*, is significant and negatively related to spread in both groups. This result was not picked up in earlier literature (Eichengreen and Mody, 2000; Altunbas and Gadanecz, 2003; Edwards 1986), where the data were not partitioned to identify distressed countries that were not under the IMF umbrella. Previous studies (eg Eichengreen and Mody, 2000; Altunbas and Gadanecz, 2003; Edwards 1986; Cantor and Pecker 1996) also appear to indicate that lenders take into consideration the ability to service foreign debt by earning money from exports. Our results confirm this finding, but for only the second sample, countries that are not under the IMF umbrella. The variable used to capture the above ability to service foreign debt is the *debt service to exports ratio.* This coefficient attached to this ratio in our equation is positive and significant, but only for countries in the second sample. It appears, however, that export performance in relation to debt service obligation is considered less important for countries under IMF supervision and we conjecture that perhaps lenders expect to be bailed out by the IMF.

Reserve to GDP ratio is insignificant in both groups. Earlier literature (Edwards, 1986; Altunbas and Gadanecz 2003) suggests that the relation between this ratio and price of loans is negative. Although the national reserves are taken into account when pricing emerging country loans, there are measurement problems, for example in distinguishing between short term capital flow and changes in reserves[14]. If IMF policies on strengthening foreign exchange reserves have an impact on the lender's decision in the pricing of loans to entities located in IMF-assisted countries, the impact is difficult to identify[15].

The coefficient *of short term external debt to total external debt ratio* is significant and has a positive sign when the regression equation is restricted to sample countries without IMF assistance as Edwards (1986) suggests. In contrast, the coefficient is significant but negative in countries with IMF assistance. This might signal creditor moral hazard, implying that creditors do not worry about potential default because they expect to be bailed out by the IMF when a borrowing country is under the IMF umbrella. An alternative but not mutually exclusive explanation might lie in the fact, as discussed above, that governments in IMF assisted countries guarantee even private sector loans and local banks' foreign liabilities. Creditors expect a sovereign country default to be less likely.

Investment to GDP ratio is significant and negatively related to the cost of funds, but only in IMF assisted countries. This finding is similar to that reported in earlier literature (Edwards, 1986), which suggests that lenders take a more benign view of countries that are expected to grow faster. Inflation (CPI) in countries without IMF assistance increases the price of loans.[16] Paradoxically *CPI* has a significant but negative relation to the price offered to enterprises in countries in receipt of IMF assistance. It is possible that larger inflation is also associated with larger drop in the inflation rate amongst these countries but the data are not rich enough to test this proposition. In any event, the coefficient for *CPI* is very small. Real *GDP growth* has a significant and negative coefficients in both of the selected groups of countries. This result is in accordance with past literature (Eichengreen and Mody, 2000; Altunbas and Gadanecz, 2003). In the eyes of lenders, a vigorously but not too rapidly growing country is regarded as

[14] To measure the possible effect of correlation between short-term debt to total debt and reserves to GDP ratio on constructed model, we have run a regression for both groups of countries omitting the reserves to GDP variable. These results, reported in Appendix 5, do not much differ from original findings that are presented in Table 4 in the text.

[15] To control the uniformity of higher foreign exchange reserves policy of IMF, we have checked the variability of reserves to GDP ratio for both samples. Standard deviation of debt to GDP ratio is 3.6 and 9.3 per cent, respectively, for the IMF assisted and non IMF assisted countries. The low variance in the first group compared to their peers signals greater uniformity in the policy on reserves amongst the IMF-assisted countries.

a less risky proposition. A higher level of economic openness, measured by the volume of import and exports to GDP, ameliorate debt distressed countries' cost of funding whether they follow IMF prescriptions or not.

V. Conclusion

The IMF has come under increasing criticism in recent years for internal contradictions in policy. Questions have been raised about how the international financial markets perceive the value of the IMF umbrella for countries that are experiencing financial difficulties. This paper tackles this question by examining the effect of IMF imprimatur on the cost of borrowing in the international capital markets by client states using a large sample single-syndicated loan contracts granted to public and private sector borrowers located in debt distressed emerging nations between 1993 and 2001. The data consist of 2665 loan contracts and this is broken down into two samples, both comprising countries experiencing a similar intensity of balance of payments deficit. Only one of the sample comprises countries that have availed of IMF assistance by operating the General Resources Account (GRA).

The evidence indicates that creditors might not place much faith in the efficacy of IMF programs and economic policy advice. The data reveal that the IMF assisted countries paid higher spreads over LIBOR for short term loans and obtained fewer long term loan contracts compared to their non-IMF peers for the financing of similar purpose projects. Specifically, loans channelled to the export sector either by state or by the financial sector in IMF assisted countries are more costly relative to their counterparts in non-assisted countries. Thus the goods and services sectors in the non-assisted countries enjoy an advantage in the export markets. This might be a plausible explanation of the findings reported in Prezeworski and Vreeland (2000) that countries under IMF programmes record a lower growth rates.

[16] Altunbas and Gadanecz (2003) also finds a positive relation between price and *CPI*.

Appendix 1

Table 1
Selected emerging countries and total number of syndicated loans issued between 1993 and 2001

Emerging countries with IMF assistance		Emerging countries without IMF assistance	
Algeria, Argentina, Brazil, Bulgaria, Croatia, Indonesia, Mexico, Pakistan, Peru, Philippines, Russia, Turkey		Chile, Ghana, India, Morocco, Malaysia, Tunisia, Venezuela, Sri Lanka, Thailand, Venezuela	
Total Loans Issued	1677	Total Loans Issued	1177

Source: Authors' calculations from data

Appendix 2

Construction and property: Construction/Building, Products-Commercial Building, Construction/Building Products-Maintenance, Construction/Building Products-Miscellaneous, Construction/Building Products-Residential Building, Construction/Building Products-Retail/Wholesale, Property/Real Estate, Property/Real Estate-Development, Property/Real Estate-Diversified, Property/Real Estate-Operations, Property/Real Estate-REIT, Construction/Building.

Financial services (bank): Finance-Commercial & Savings Banks, Finance-Student Loan, Finance-Mortgages/Building Societies, Finance-Investment Bank, Finance-Credit Cards, Finance-Development Bank.

Financial services (non-bank): Insurance, Finance-Investment Management, Insurance-Property & Casualty, Insurance-Multi-Line, Insurance-Life, Insurance-Brokers, Insurance-Accident & Health, Holding Companies-Conglomerates, Finance-Leasing Companies, Finance-Brokers & Underwriters, Finance, Holding Companies-Special Purpose Financial Vehicles, Holding Companies.

High-tech: Aerospace & Defence-Aircraft, Chemicals-Fibres, Chemicals-Diversified, Chemicals, Agribusiness-Agriculture, Aerospace & Defence-Products & Services, Aerospace & Defence, Healthcare-Genetics/Research, Chemicals-Plastic, Agribusiness, Services-Management Consulting, Telecommunications-Wireless/Mobile, Telecommunications-Telephone, Telecommunications-Services, Telecommunications-Satellite, Electronics, Telecommunications, Computers, Services-IT, Healthcare-Products, Computers-Internet, Telecommunications-Equipment, Computers-Hardware, Healthcare-Medical/Analytical Systems, Computers-Software, Electronics-Electrical Equipment, Healthcare-drugs/Pharmaceuticals, Healthcare-Instruments/Surgical Supplies.

Infrastructure: Transportation-Airport, Transportation-Logistics/Distribution, Construction/Building Products-Infrastructure.

Population services: Dining & Lodging-Hotels & Motels, Healthcare-Nursing Homes, Automobile-Repair, Automobile-Sales, Dining & Lodging, Services-Funeral & Related, Retail-Home Furnishings, Retail-Jewellery Stores, Retail-Mail Order & Direct, Dining & Lodging-Restaurants, Retail-Pharmacy, Healthcare-Professional Services/Practices, Retail-Supermarkets, Services, Retail-Department Stores, Services-Advertising/Marketing, Retail-Miscellaneous/Diversified, Services-Legal, Services-Personnel, Services-Printing, Services-Schools/Universities, Services-Security/Protection, Services-Travel, Telecommunications-Cable Television, Telecommunications-Radio/TV Broadcasting, Services-Accounting, Healthcare-Miscellaneous Services, Healthcare, Healthcare-Hospitals/Clinics, Retail-
Specialty, Healthcare-Management Systems, Retail-Convenience Stores, Healthcare-Outpatient Care/Home Care, Leisure & Recreation, Leisure & Recreation-Film, Leisure & Recreation-Gaming, Leisure & Recreation-Services, Publishing, Publishing-Books, Publishing-Diversified, Publishing-Newspapers, Publishing-Periodicals, Retail, Retail-Apparel/Shoe, Retail-Computers & Related, Leisure & Recreation-Products.

State: Finance-Export Credit Agencies, Government-Provincial Authority, Government-Local Authority, Government-Central Bank, Government-Central Authority, Finance-Multilateral Agencies, Government.

Traditional Industry: Air Conditioning and Heating, Forestry & Paper, Automobile, Automobile-Manufacturers, Automobile-Mobile Homes, Automobile-Parts, Chemicals-Fertilisers, Metal & Steel-Products, Forestry & Paper-Packaging, Forestry & Paper-Pulp & Paper, Forestry & Paper-Raw Materials, Machinery, Machinery-Electrical, Construction/Bldg Prods-Cement/Concrete, Machinery-General Industrial, Food & Beverage-Wholesale Items, Machinery-Material Handling, Machinery-Printing Trade, Food & Beverage-Miscellaneous, Metal & Steel-Distributors, Machinery-Farm Equipment, Mining, Mining-Excavation, Oil & Gas-Equipment & Services, Oil & Gas-Exploration & Development Onshore, Oil & Gas-Exploration & Development Offshore, Textile, Textile-Apparel Manufacturing, Textile-Home Furnishings, Textile-Mill Products, Textile-Miscellaneous, Metal & Steel, Consumer Products-Footwear, Construction/Bldg Prods-Engineering, Construction/Building Prods-Wood Products, Machinery-Machine Tools, Consumer Products-Cosmetics & Toiletries, Food & Beverage-Sugar & Refining, Consumer Products-Furniture, Consumer Products-Glass, Consumer Products-Home Improvement, Consumer Products-Miscellaneous, Consumer Products-Office Supplies, Consumer Products-Precious Metals/Jewellery, Consumer Products-Rubber, Consumer Products-Tobacco, Consumer Products-Tools, Food & Beverage, Food & Beverage-Alcoholic

Appendix 3

Table 6

Descriptive statistics on loan characteristics for sample countries with and without IMF assistance between 1993-2001 according to loan purpose

		With IMF					Without IMF				
Business Sector	**Variable**	**Num. of Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**	**Num. of Obs.**	**Mean**	**Std. Dev.**	**Min**	**Max**
Corporate Control	drawn	62	306	146	35	650	46	214	137	35.5	621.9
	maturity		2.8	2	0.2	15		3.9	2.5	0.3	12
	loan size		170.7	230.6	0.2	1100		192.9	154.4	2.4	1050
Capital Structure	drawn	213	257	178	2.4	1275	223	120	94	15	582.8
	maturity		3.2	2.3	0.3	15		4.4	2.2	0.2	10.8
	loan size		185	361	2.8	6100		128.9	255.1	2.8	3500
General	drawn	428	205	138	15	900	189	119	97	10	537.5
	maturity		2.2	2	0.1	30		3.6	2.8	0.2	18
	loan size		93.4	122.1	0	1750		95.8	132.7	1.1	2416
Other	drawn	356	226	161	2.8	870	368	100	77	11	1000
	maturity		3.1	2.3	0.1	16		4.1	1.9	0.1	20
	loan size		101.2	170.4	0.2	2022.1		60	81.2	0	997.1
Project Finance	drawn	306	210	126.4	7	650	168	154	86	7	431.8
	maturity		8.5	4.5	0.5	20		8.7	3.2	0.3	25
	loan size		140.6	219.9	0.4	2500		150.1	185.5	1	2300
Multi Purpose	drawn	186	249	153	20	925	62	185	145	23.5	571.1
	maturity		3.3	2.7	0.3	14.7		4.9	3	0.3	12.1
	loan size		148.0	184.3	4.8	1615		145.8	191.2	5	1250
Transport	drawn	22	155	132	10	650	28	80	53	12.5	283.3
	maturity		8.45	3.9	1	12		9.8	3.1	0.5	12
	loan size		119.7	127.1	13	531		76.9	43.7	28	203.3

Note: Drawn are basis points, Loan size are million US dollars, Maturity year

Source: Authors' calculations from data

Full list of loan purposes contained in each broad grouping

Corporate control: LBO/MBO, Employee stock option plan, Acquisition, Acquisition line.
Capital structure: Refinancing, Debtor in possession financing, Recapitalisation, Receivable backed financing, Debt repayment, Securitisation, Standby/CP support.
General: General corporate, Private placement, Public finance, Trade financing, Working capital.
Project: Project financing.
Property: Mortgage lending, Property.
Transport: Shipping, Aircraft.
Other: Spin-off, Empty purpose code.
Multiple purpose code: More than one purpose for the same loan.

Appendix 4

Table 7

Correlation Matrixes

Countries with IMF assistance

	Lndrawn	Maturity	debtgdp	tdstoxgs	restogdp	st_tdebt	invgdp	credgdp	growth	cpi	Impexp	
lndrawn	1											
maturity	-0.1237	1										
debtgdp	-0.0173	0.1835	1									
tdstoxgs	0.1123	0.0041	0.071	1								
restogdp	-0.1318	0.1445	0.327	-0.181	1							
st_tdebt	-0.1409	0.0345	0.0776	0.2746	0.0667	1						
invgdp	-0.1758	0.1306	-0.0538	-0.1001	0.1931	0.0914	1					
credgdp	-0.0703	0.1921	0.5085	0.1967	0.2441	0.2886	0.1854	1				
growth	-0.2972	0.0566	-0.0976	-0.0817	-0.0322	0.2568	0.452	0.0581	1			
cpi	-0.0316	-0.0622	-0.2153	-0.1354	-0.0251	-0.0513	-0.0982	-0.14	-0.0588	1		
impexp	-0.2562	-0.0716	-0.3767	-0.2293	0.2383	0.1141	-0.0544	-0.1932	0.1485	0.1269	1	

Countries without IMF assistance

	Lndrawn	Maturity	debtgdp	tdstoxgs	restogdp	st_tdebt	invgdp	credgdp	growth	cpi	Impexp	
lndrawn	1											
maturity	0.0257	1										
debtgdp	0.0242	-0.019	1									
tdstoxgs	0.1506	-0.0338	0.2358	1								
restogdp	-0.0303	0.0052	0.3792	-0.2285	1							
st_tdebt	-0.0377	-0.127	0.1173	-0.1748	0.379	1						
invgdp	-0.1189	-0.044	-0.2774	-0.7598	0.2766	0.531	1					
credgdp	-0.0726	-0.0131	-0.0682	-0.7717	0.3525	0.2409	0.77	1				
growth	-0.1867	0.0211	-0.6457	-0.5415	-0.166	0.2039	0.6699	0.4389	1			
cpi	0.1173	0.0466	-0.0722	0.1887	-0.3702	-0.1595	-0.1973	-0.3722	0.0579	1		
impexp	-0.0643	-0.027	0.2227	0.3333	-0.0683	0.4097	-0.0734	-0.418	-0.1345	-0.0819	1	

Appendix 5

Table 8

Regression results for emerging countries with and without IMF assistance

	Emerging countries with IMF assistance			Emerging countries without IMF assistance		
Variable	Coefficient	Standard Error	P Value	Coefficient	Standard Error	P Value
Maturity	-0.0184	0.0050	0.0000	0.0236	0.0065	0.0000
Debt to GDP	-0.0071	0.0017	0.0000	-0.0060	0.0016	0.0000
Debt service to export of goods and services	0.0012	0.0008	0.1540	0.0123	0.0041	0.0030
Short term external debt to total external debt	-0.0050	0.0022	0.0240	0.0083	0.0030	0.0060
Investment to GDP	-0.0106	0.0052	0.0400	0.0056	0.0062	0.3660
bank credit to GDP	-0.0007	0.0017	0.6710	-0.0005	0.0018	0.7720
Growth rate	-0.0378	0.0053	0.0000	-0.0628	0.0081	0.0000
Sum of imports and exports to GDP	-0.0049	0.0006	0.0000	-0.0057	0.0015	0.0000
Inflation	-0.0005	0.0002	0.0310	0.0062	0.0032	0.0570
Constant	6.7289	0.1672	0.0000	4.8034	0.2213	0.0000

Note: Number of observations in drawn spread regression for countries with IMF assistance is 1438, for countries without IMF assistance is 1030. F-tests are significant at the 1% level

References

Altunbas, Y., and Gadanecz, B., 2003: Developing Country Economic Structure and the Pricing of Syndicated Credits, BIS working Paper 132

Bird, G. and Rowlands, D., 1997: The Catalytic Effect of Lending By the International Financial Institution, World Economy 20(7):pp. 967-991

Cantor, R. and Packer, F., 1996: Determinants and impact of sovereign credit ratings, Federal Reserve Bank of New York Economic Policy Review, September.

Chand, S. K. 2003: Stabilizing Poverty: Or How to Humanize the IMF's Monetary Model, European Public Choice Meeting, Aarhus, Denmark, April 25-28

Dreher, A. 2004: Does the IMF cause moral hazard? A critical view of the evidence, unpublished discussion paper, http://www.axel-dreher.de/

Dreher, A. and Vaubel R., 2004: Do IMF and IBRD cause moral hazard and political business cycles? Evidence from panel data, Open Economies Review 15, 1: 5-22

Dell'Aricca, G., and Isabel-Zettelmeyer, J., 2002: Moral Hazard and International Crises Lending, Paper presented at 1st annual IMF research conference

Easterly, W., 2003: IMF and World Bank Structural Adjustment Programs and Poverty, In Michael Dooley and Jeffrey A. Frankel (eds.), Managing Currency Crises in Emerging Markets. Chicago: University of Chicago, p. 361-382

Edwards, M. 2000: Re-evaluating the Catalytic Effect of IMF Programs, Rutgers University. Mimeo

Edwards, S., 1998: Abolish The IMF, Financial Times, November 13.

Edwards, S., 1986: The pricing of bonds and bank loans in international markets, European Economic Review 30, 565-589

Eichengreen, B. and Mody, A., 2000: Lending Booms, Reserves and the Sustainability of Short-Term Debt: Inferences from the Pricing of Syndicated Bank Loans, Journal of Development Economics, 63 (1), pp 5-44

Ergin, E., 1999: Determinants and Consequences of International Monetary Fund Programs, PhD. Dissertation. Stanford University

Evrensel, A., 2002: Effectiveness of IMF-Supported Stabilization Programs in Developing Countries, Journal of International Money and Finance 21, pp.565-587

Goldsbrough, D., Barnes, K., Meteos, Y., Lago, I., Tsikata, T. 2002: Prolonged Use of IMF Loans, Finance and Development, vol. 39, no. 4, December 2002, pp. 34-37

Gould, E.E, 2003: Money Talks: Supplementary Financiers and International Monetary Fund Conditionality, International Organization 57, Dummer 2003, pp. 551-586

Grauda, G., 2000: The Distributional Effects of IMF Programs: A cross country analysis, World Development 28 (6): 1031-1051

IMF, 2002, Independent Evaluation Office Report, Evaluation of Prolonged Use of IMF Resources, September 25, 2002, http://www.imf.org/External/NP/ieo/2002/pu/index.htm

IMF, 2001, Capital Markets Report, Chapter 3, Emerging Market Financing, August 22, 2001 http://www.imf.org/external/pubs/ft/icm/2001/01/eng/pdf/chap3.pdf

IMF, 1999, IMF-Supported Programs in Indonesia, Korea, and Thailand, Occasional Paper, No 178 http://www.imf.org/external/pubs/ft/op/op178/op178.pdf

Joyce, J.P., 2002: Through a Glass Darkly: New Questions(and answers) about IMF Programs, Wellesley College Working Paper 2002-04

Kamin, S.B., and von Kleist, K., 1999: The evolution and determinanats of emerging market credit spreads in the 1990s, BIS Working Papers, No.68, May.

Kleimer, S., and Megginson, W., 2000: Are project finance loans different from other syndicated credits?, Journal of Applied Corporate Finance, Vol.13, Part, pp. 75-87

Kas, D. 2003: Emerging Market Economies: Financial Liberalization Endeavors and Their Impact, International Capital Mobility and Financial Fragility: Academic Research,http://www.stern.nyu.edu/globalmacro/acad_res/inter_capital_mobility_papers.html

Kohler, H., 2003: Towards a Better Globalization, Inaugural Lecture on the Occasion of the Honorary Professorship Award at the Eberhard Karls University in Tübingen, Tübingen, October 16, 2003

Krueger, A. 2001: In an address to the National Economists' Club, American Enterprise Institute, Washington, D.C., November

Lane, T., and Phillips, S., 2000: Does IMF Financing Result in Moral Hazard, IMF Working Paper, No.100/168

Marchesi, M. and Thomas, P.J., 2000: IMF Conditionality as a Screening Device, Economic Journal 109 (454): pp. 111-125

Ozler, S., 1993: Have commercial banks ignored history?, The American Economic Review. Vol 83, No.3 (jun.1993), pp 608-620

Prezeworski, A and and Vreeland R.J., 2000: The Effect of IMF Programs on Economic Growth, Journal of Development Economics, Vol 62: 385-421

Rodrik, D., 1998: Who needs capital-account convertibility? Essays in International Finance 207, International Finance Section, Department of Economics, Princeton University (May), 55-56

Rowlands, D., 2001: The Response of Other Lenders to the IMF, Review of International Economics 9 (3), pp. 531-546

Stiglitz, J.E., 2000, Capital Market Liberalization, Economic Growth and Instability, World Development Vol. 28, No. 6, pp. 1075-1086

Stiglitz, J.E., 2002a: Globalization and Its Discontents, W.W Norton & Co.; New York

Stiglitz, J.E., 2002b: Development policies in a world of globalization, Paper presented at the seminar "New International Trends for Economic Development", Brazilian Economic and Social Development Bank, Rio Janeiro, September 12-13

Stiglitz, J.E., 2002c: Financial market stability and monetary policy, Pasific Economic Review 7:1 (2002), pp. 13-30.

Stiglitz, J.E., 2003: Globalization and growth in emerging markets and the New Economy, Journal of Policy Modelling, Vol. 25, pp. 505-524

Tillmann, P., 2001: Switching Risk-Perception on Bond Markets: Does IMF Lending Induce Moral Hazard?, Mimeo, University of Cologne.

Vreeland, J.E., 2002: The Effect of IMF Programs on Labor, World Development 30 (1), pp. 121-139

Zhang, X.A, 1999: Testing for "Moral Hazard" in Emerging Markets Lending, Institute of International Finance Research, Paper No. 99-1