Spring 5-17-2013

Essay 1:IMF Lending and the Emerging Markets' Governance Structure. Essay 2: Specialization Constructs among Business Incubators

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Essay 1: IMF Lending and the Emerging Markets' Governance Structure
Essay 2: Specialization Constructs among Business Incubators

A Dissertation

Submitted to the Graduate Faculty of the
University of New Orleans
in partial fulfillment of the
requirements for the degree of

Doctor of Philosophy
in
Financial Economics

by

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May, 2013

Dedication

For my late grandfathers, Emmanuel Bain and Andrew Martin, I know you are watching over me from heaven. You laid the foundation for our family, for this I am eternally grateful

For my mother, Julie Bain, who always believed in me and sacrificed a great deal for my success, you taught me that with God all things are possible

For my sister, Bianca Bain, my brother, Donald Bain and my father, Lester Bain who always encouraged me and supported me, I love you dearly

For my family, Aunty Veronica, Uncle Rolly, Bryonn, K, David, Anissa, Dez, Aunty Tara, Uncle Ali, Cindy, Andre, you saw in me what I couldn't see in myself

For my dearest friend, Kallai, you were always there for me and wouldn't let me give up

Acknowledgement

Successfully completing this dissertation would have been impossible without the support of many people who selflessly guided me. I must first thank God, my professors, my advisor, my mentors and many friends whose genuine concern and encouragement helped me to make it through this process.

I am foremost greatly indebted to my dissertation committee Chair, Dr. M. Kabir Hassan, who provided me with invaluable resources to conduct my research. His dedication and commitment to my success was evident throughout every step of the way. His knowledge and research skills were a great asset to me. He liberally shared his time and expertise with me, encouraging me when I was down, pushing me when I was unfocussed and praising me after every milestone. To you Dr. Hassan, I am eternally grateful. I must also thank my committee members Dr. Tarun Mukherjee who guided me and molded my work into something of significance, Dr. Aruna Chandrasekaran who worked with me tirelessly for countless hours to help me create and clarify my ideas and last but certainly not least Dr. Atsuyuki Naka and Dr. Ronnie Davis who stood by me every step of the way.

I must also thank Dr. Walter Lane for his guidance and instruction throughout my years at the University of New Orleans and Dr. Neal Maroney for having enough faith in me to select me to be a participant in the Financial Economics Doctoral program, four years ago.

Finally, my heartfelt gratitude goes out to my mentor, Dr. Leon Prieto, who always believed in me even when I didn't believe in myself and my most supportive, helpful and caring friends at the University of New Orleans. The collegial environment you created and the laughter and the strength you brought got us through it, for this I will always be thankful.

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Abstract

The purpose of this paper is to observe and analyze whether the value system and political structure of a nation, gauged through its legal configuration, impacts its response to IMF debt and consequently impacts its GDP growth rates. This paper also analyzes whether involvement in the fund through a loan relationship affects the country's real interest rate, inflation, exchange rate and import and export volume and whether this relationship is causal in that we can explain a nation's loan relationship with the Fund through observance of the aforementioned variables. In this paper, we observe 34 emerging markets as defined by Dow Jones in 2010.

The general consensus of the literature is that participation in IMF loan programs retards the economic growth of developing economies. In light of this, the contribution of this paper is to illustrate that some of the slowed growth experienced by these countries seeking out IMF debt is explained by their value system and general attitude toward debt. To carry out a comparable analysis we segment and group the emerging markets based on their current credit status with the IMF (as of Oct 2012) as well as by the origin of their legal system, a measure we use to assess their value system with respect to creditor and debt protection laws. We will observe the growth rates that these countries' economies experience categorized by their involvement with the Fund, the amount of their loan and whether they fully repaid their debt or are currently indebted to the Fund. We will also identify the size and frequency of the loan in order to observe the impact that these variables have on the delayed growth rates that they experience. Furthermore, we will examine the impact on their GDP growth rates, imports of goods and services, inflation, exchange rates and real interest rates. We expect to find that there is not a generic relationship between involvement in a loan relationship with the Fund and GDP growth rates. In other words, having a loan from the IMF does not directly result in delayed growth rates, contrary to popular belief. However, we hypothesize that the legal system of the borrowing countries is an explanatory variable in determining their growth rates, alongside their loan relationship with the Fund.

In addition, we expect to find empirical evidence that supports the claim that inappropriate and unmonitored involvement in the Fund can adversely affect emerging markets. Inappropriate and unmonitored involved is measured in this paper by the borrowers creditor and debtor protection laws. We aim to expand the current line of literature by analyzing whether a decline in economic growth prior to completion of an IMF loan program is a generic attribute of all participants or whether these traits are more pronounced in countries with a more unmonitored business and economic legal system.

KEY WORDS: Emerging markets, the Fund, economic growth rates, corporate governance system, legal system, civil law, common law

Introduction and Background

This paper will aim to analyze the impact of the value system and legal system on the GDP growth rates of emerging markets. We observe the growth rates of these economies through the lens of their IMF loan relationship. Essentially, we will observe the responses of emerging markets' growth rates contingent upon two specific factors, namely, their indebtedness to the IMF and their value system measured through their legal system. The effects of their legal system will be gauged by observing each country's GDP growth rates, interest rates, imports, exchange rates and interest rates..

Consistent in the line of literature is the consensus that the IMF is doing a poor job at engendering growth within the economies of countries that participate in their program. The Fund has taken hits left and right for being too rigid in the stipulations which they place upon member countries for funds to be disbursed. In addition, they have also been accused of being too generic, catering only to the needs of more developed nations, a target not initially set by the IMF. However in this paper, we aim to extend such claims by asserting that a nation that enters into a loan relationship with the IMF is not automatically doomed to retarded economic growth but their growth patterns can be gauged by assessing their value system through their attitude toward loan repayment as well as observing their debtor and creditor protection laws.

According to La Porta, Lopez de Silanes, Shleifer and Vishney (2000), the investor protection structure of a country, which essentially stems out of its legal system, directly influences the real economy. The three major effects that stimulate economic growth are firstly, it enhances savings, secondly, these savings are channeled into real investments and thereby fostering capital accumulation and finally since financiers exercise a degree of control over certain investment decisions, resources are directed toward more productive uses and consequently more productively allocated, La Porta et al (2000).

The value system in which we refer in the abstract is defined as in La Porta, Lopez-de-Silanes, Shleifer and Vishny (1997). In their research, they highlight that the legal rules protecting investors along with the quality of protection provided differ significantly and systematically across countries. Essentially, some legal systems offer more protection to creditors while others more diligently protect the rights of the debtors. Evidently, there would be two main effects of these laws. Firstly, foreign investment would be directly affected since potential investors would invest where they have more investment protection and secondly, this would be a direct reflection of the states' attitude toward having national debt.

The legal systems of the world stem out of a few distinct origins. These are English, French, German and Scandinavian. English law, also known as common law is overseen by judges and as a result is incorporated into the country's legislature. French, German and Scandinavian law on the other hand dates back to Roman law and is a part of the scholar and legislator-made civil law tradition, La Porta et al (1997). Their findings also findings also indicate that richer countries enforce laws better than poorer countries.

In retrospect, we consider emerging markets because according to The University of Iowa Center for International Finance and Development, emerging markets are countries that have strategically positioned themselves to experience rapid growth and industrialization [See Li, Chuan. (2012)]. These countries not only experience rapid growth spurts but award lucrative returns to risk loving investors in, among others, the areas of trade, technology transfers as well as foreign direct investments. Ashoka Mody in "What is an emerging market?" also describes it as the place where a country is positioned such that it is searching for an acute tradeoff between commitment and flexibility in contractual agreements [See Mody, Ashoka (2004)]. As noted by the World Bank, the five largest emerging markets on the globe are China, India, Indonesia, Brazil and Russia [See Li, Chuan. (2012)].

Undisputedly, emerging markets often suffer detrimentally from shocks that hit their economies. Unfortunately, oftentimes these shocks are not terribly severe and developed nations

generally completely recover from them. One of the main characteristics of an emerging market that lends itself to the mercy of these shocks is the volatility of these underdeveloped nations. Since many developing countries are not fully stable, they are unable to withstand normal or, much less so, severe abnormalities that may hit their economies. As a result of the volatility of the economies of emerging markets, many of them that approach the Fund do so in a state of great distress and hopelessness. Consequently, the literature argues that countries are not rewarded for engaging in an IMF loan program but conversely experience slower growth rates after entering into the program in comparison to similar countries that were also experiencing adverse economic conditions and did not engage in an IMF loan relationship.

The IMF

The International Monetary Fund (IMF) is an organization reconstructed in 1944 with a defined mission to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment levels, sustain economic growth and reduce poverty around the globe (About the IMF:www.imf.org). Feldstein (1998) notes that the IMF was originally formed to help countries cope with trade deficits and temporary shortages of foreign exchange but has a new emphasis on structural and institutional reform, an avenue that has not always been a part of the IMF's agenda.

Over the years the IMF has experienced significant growth with the world membership rising from 44 states in 1946 to 188 at present. However, each country does not have equal representation at the Fund. Countries are given voting rights paralleling a quota subscription that works similar to a credit union deposit in the IMF. Upon joining the fund countries pay 75% of their quota in their own currency and the remaining 25% in an international currency known as Special Drawing Rights or SDRs. Initially, the quota allocations were based on economic size measured by external trade volume as well as national income. Currently members' quota is reviewed at least every five years by assessing similar variables.

Combined, the emerging markets analyzed in this paper only represent 22.9% of the IMF's voting rights. However, the majority of the decision making process is undertaken by 24 directors, 8 selected because they are the largest shareholders and the remaining 16 are elected by the remaining countries. The United States alone carries 16.75% of the votes, followed by Japan at 6.23% and Germany at 5.81%. Essentially, many decisions made by the IMF need a voting majority of 85% therefore the US alone in addition to three other major European countries can have a major influence on the decision of the Fund.

Figure 1

Member	QUOTA (%)	VOTES (%)
China	4.00%	3.81%
Russian Federation	2.50%	2.39%
India	2.44%	2.34%
Brazil	1.79%	1.72%
Mexico	1.52%	1.47%
Argentina	0.89%	0.87%
Indonesia	0.87%	0.85%
South Africa	0.78%	0.77%
Malaysia	0.74%	0.73%
Poland	0.71%	0.70%
Turkey	0.61%	0.61%
Thailand	0.60%	0.60%
Kuwait	0.58%	0.58%
Hungary	0.44%	0.44%
Pakistan	0.43%	0.44%
Philippines	0.43%	0.43%
Romania	0.43%	0.44%
Czech Republic	0.42%	0.43%
Egypt	0.40%	0.40%
Chile	0.36%	0.37%
Colombia	0.33%	0.34%
United Arab Emirates	0.32%	0.33%
Bulgaria	0.27%	0.28%
Peru	0.27%	0.28%
Morocco	0.25%	0.26%
Slovak Republic	0.18%	0.20%
Sri Lanka	0.17%	0.19%
Oman	0.10%	0.12%
Lithuania	0.08%	0.10%
Jordan	0.07%	0.10%
Bahrain	0.06%	0.08%
Latvia	0.06%	0.09%
Estonia	0.04%	0.07%
Mauritius	0.04%	0.07%
Total *	**23.18%**	**22.90%**
United States **	17.69%	16.75%

Figure 1 shows the quota and voting rights allotted to the countries analyzed in our paper. Combined, the emerging markets studied jointly represent a quota that is barely larger than that allotted to the United States. Evidently, many decisions that are made by the Fund on behalf of these emerging markets are often in the best interest of the larger nations and not of these small, developing nations. Ironically, the primary purpose of the Fund was to supplement lower income countries and assist them in decreasing the balance- of- payments accounts. Now like many other NGO's; they are being most heavily influenced by the countries that are least dependent on their services.

We will observe 34 emerging markets as defined by Dow Jones in 2010 to determine whether countries indebted to the IMF, experienced slower growth rates solely as a result of engaging in an IMF loan relationship or whether their historical legal and value system play a role in the delayed growth rates of these nations. In addition, we will also observe the level of debt and the frequency in which these countries engaged in an IMF loan program. We suspect that not only being indebted to the IMF will affect their ability to recover from the crisis but the size of the debt will play an integral role in these countries' economic stability. Ultimately, we expect to find evidence to support our hypothesis that though the IMF may be at fault in enabling emerging markets in their downward spiral of accumulating debt from which they are unable to emerge; other factors are significant in explaining their delayed growth rates most importantly, their corporate governance laws.

As noted in Barro and Lee (2005) any IMF lending program that a particular country engages in is often a reflection of their political-economic status. Their findings indicate that loans disbursed to countries in need tend to be larger and more frequent when the country has a stronger political and economic alliance with the United States or other major influential European countries. In addition, these loans are also more substantial when the borrowing country has more influential persons stationed on the IMF's staff.

They found evidence to support the claim that countries that have a higher IMF loan participation rate usually experiences declining economic growth. In addition, while they find no significant effects on other variables such as investment and inflation, they find a small negative effect on the said countries' democratic rule of law.

Research illustrates that countries that borrow larger loans from the IMF are more likely to experience a slowing in economic growth. This paper extends those studies by analyzing those countries that were able to fully repay their loans to determine whether their economic growth was more desirable than those emerging markets that struggled to complete loan repayment. We also aim to assess their performance contingent upon their value system.

There are different types of loans issued by the IMF and according to Barro and Lee (2005) the type of loan disbursed or even agreed upon between the IMF and the borrowing nation is contingent upon their current economic status from an international standpoint. Two major types of loans provided as credits to member countries in balance-of-payments difficulties are the Stand-by-Arrangement (SBA) and the Extended Fund Facility (EFF) programs. These loan programs were designed to provide short term loan assistance to countries in need. In addition to those, other short term loans have been introduced to supplement those programs. These include Supplemental Reserve Facility (SRF), the Country Stabilization Fund (CSF), the Compensatory and Contingent Financing Facility (CCFF) and the Systematic Transformation Facility (STF). In general, a Stand-by-Arrangement is extended over a period of one year to two years and repayment typically starts from three years to five years after the borrowing date. The Extended Fund Facility arrangement is generally stretched across the first three years with the repayment schedule beginning anywhere between year four and ten.

However, for countries with more extreme and desperate economic conditions these short term loans were not sufficient to meet there needs. After being pressured, the IMF was forced to extend its programs and offer long term loans more directed toward lower income, higher need

countries. These programs, namely the Structural Adjustment Facility (SAF) and Enhanced Structural Adjustment Facility (ESAF) were established to help lower income countries. They charged a subsidized interest rate of 0.5% and offered a repayment schedule of five to ten years after a five year grace period. The ESAF was later replaced by a Poverty Reduction Growth Facility (PRGF) and labeled as foreign aid rather than a balance of deficits reduction program.

The economic status of a country is not the only factor that is heavily weighed when determining a country's eligibility in loan approval. Another major contributing factor is each country's share of IMF quota. Evidently, the countries that have the smallest economies are automatically placed in a position where their authority and decision making abilities in the Fund are limited. Ironically these countries are most in need of guidance and the decisions made by the Fund on their behalf are frequently not in their best interest. Though these quotas are updated every five years there are often limited changes in the progress many of these low income countries make.

Essentially, this paper will aim to examine the effects that the legal affiliation of a country has on emerging markets segmented into categories distinguished by whether there currently exists a working relationship between the IMF and the specific country, the type of program engaged in with the IMF as well as the repayment status of the country. In addition, we will do further analysis on the frequency of the loans and the repayment status of each individual country.

Figure 2

Period	Stabilization Program		Structural Program		Total no. of loans
	SBA	EFF	PRGF/ ECF	FCLC	
1980 – 1984	Chile, Mauritius	India			3
1985 – 1989	Chile, China, Mauritius, Morocco, Thailand	Chile			6
1990 – 1994	Czech Republic, Egypt, India, Morocco, Philippines, Slovakia, Hungary	Egypt, Lithuania, Philippines		Poland	11
1995 – 1999	Brazil. Egypt, Indonesia, Philippines, Russia, Thailand, Hungary, Latvia, Turkey	Bulgaria, Indonesia, Russia, Jordan			13
2000 – 2004	Argentina, Brazil, Bulgaria, Lithuania, Jordan, Latvia, Pakistan, Romania, Turkey	Indonesia, Sri Lanka	Pakistan, Sri Lanka		13
2005 – 2009	Hungary, Latvia, Pakistan, Romania, Sri Lanka, Turkey			Mexico, Poland	8
2010 – 2011	Romania, Sri Lanka			Mexico, Poland	4
1980 -2011					58

Figure 2 is a list of countries and the type of loan program that they participated in. In the set of 35 countries, 58 loan programs were entered into by 25 countries. Many of these countries engaged in at least 2 or 3 arrangements each. The SBA (Stand-by- Arrangement) and EFF (Extended Fund Facility) are programs categorized as Stabilization programs whereas PRGF (Poverty Reduction and Growth Facility) /ECF (Extended Credit Facility) and FCL (Flexible Credit Line) are under the umbrella of Structural programs.

The IMF has several programs in which they distribute funds to member countries. Stand-by- Arrangement (SBA) and Extended-Fund-Facilty (EFF) are two major short term balance-of –payments programs in which repayments are due within 3-5yrs and 4-10yrs of disbursement consecutively. However, after protest that these programs were not useful to lower income countries they introduced Structural Adjustment Facility (SAF) and Enhanced SAF (ESAF) which allowed 5-10yrs for repayment after a 5yr grace period. ESAF was later changed to Poverty Reduction Growth Facility (PRGF).

Figure 3

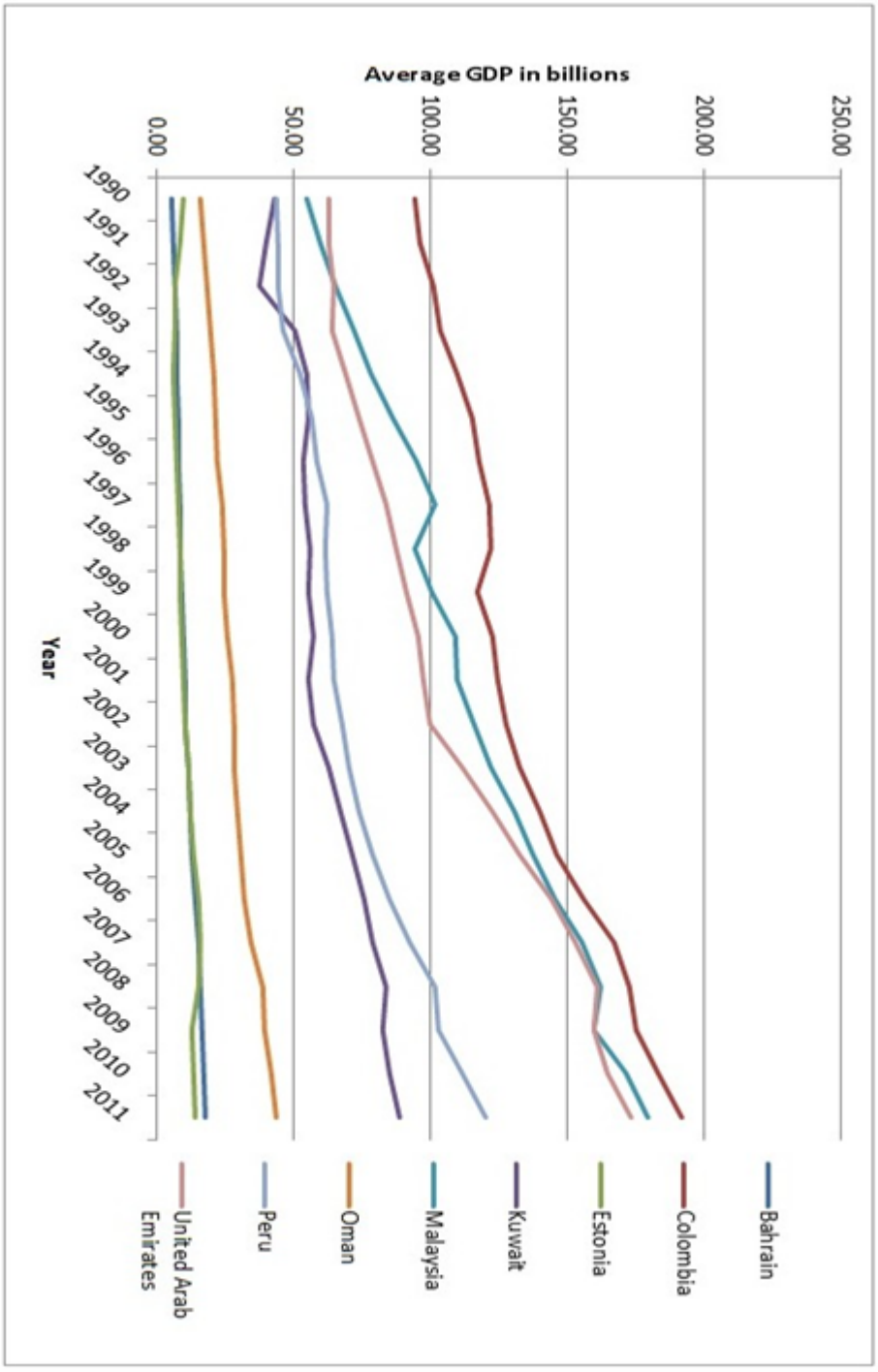
GDP of countries with emerging markets that have never been indebted to the Fund over the period 1990 - 2011
Average GDP in billions
250.00
200.00
150.00
100.00
50.00
0.00
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
Bahrain
Colombia
Estonia
Kuwait
Malaysia
Oman
Peru
United Arab Emirates

Figure 3 illustrates the GDP of a sample of emerging markets that never received IMF credit within the period 1990-2011. This data was collected from the World Bank World Development Indicators, International Financial Statistics of the IMF, IHS Global Insight, and Oxford Economic forecasting, as well as estimated and projected values developed by the Economic Research Service all converted to a 2005 base year. [When this data was gathered, because of the use of fixed exchange rates, for consistent and accurate interpretation, the exchange rates of the 2005 USD was utilized in calculating the listed GDPs].

We can observe from this figure that during the 2007-2009 financial crisis there was not an extensive dip in GDP of countries who never undertook IMF credit and most of these economies were able to recover and grow after the end of the crisis.

Figure 4 illustrates the GDP of countries who received IMF credit but has fully repaid the debt within the 1990-2011 period. From our diagram we can also observe that most of these countries were able to survive the 2007-2009 financial crisis and flourish after the fact.

Figure 4

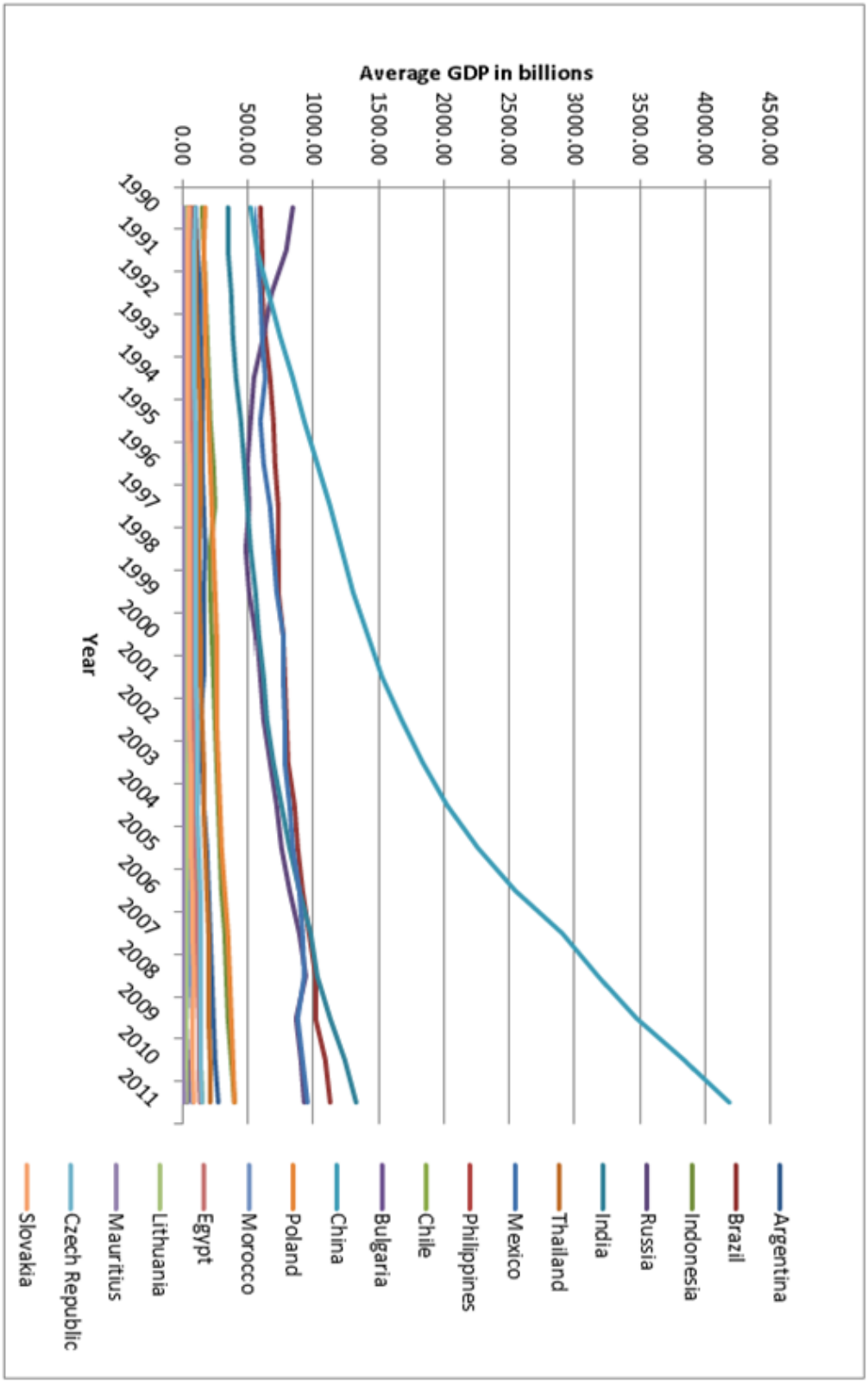
GDP of countries with emerging markets that have fully repaid their debt to the Fund over the period 1990 - 2011
Average GDP in billions
4500.00
4000.00
3500.00
3000.00
2500.00
2000.00
1500.00
1000.00
500.00
0.00
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
Argentina
Brazil
Indonesia
Russia
India
Thailand
Mexico
Philippines
Chile
Bulgaria
China
Poland
Morocco
Egypt
Lithuania
Mauritius
Czech Republic
Slovakia

Figure 5

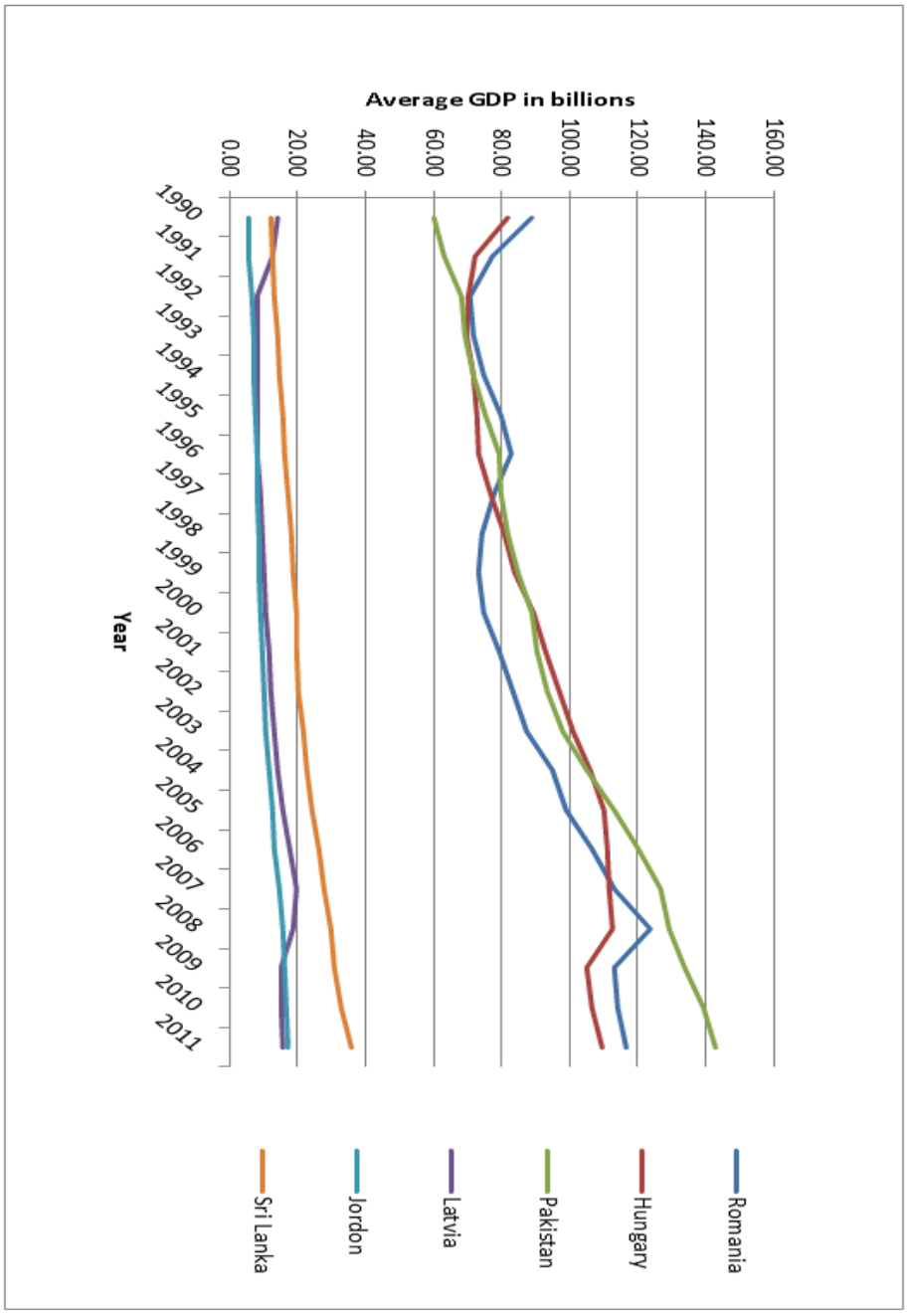
GDP of countries with emerging markets which are currently indebted to the Fund over the period 1990 - 2011
Average GDP in billions
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
Year
Romania
Hungary
Pakistan
Latvia
Jordon
Sri Lanka

Figure 5 highlights the GDP of countries between the 1990-2011 period, that are currently indebted to the IMF. In figure 3 it is easier to observe the drop in country GDP during the 2007-2009 period. This drop that is conspicuous in Romania, Hungary and Latvia are not quite as common in countries that never undertook IMF debt or undertook debt but fully repaid it.

Hypotheses

In this paper we test three main hypotheses regarding the relationship between the economic growth rates of emerging markets and their legal system.

- H1A: Involvement in the IMF only exemplifies the shortcomings of the country's corporate governance system
- H1B: Emerging markets that have outstanding debt from the IMF are more exposed to economic hardships than countries that do not undertake IMF debt.
- H1C: Of countries participating in IMF loan programs, those that are of civil law tradition experience slower growth rates than those of common law tradition

Emerging markets are generally most susceptible to become debtors of the IMF. The purpose of this paper is to transcend the current line of literature and show that involvement in an IMF loan program does not generically lead to slurred GDP growth rates for the borrowing country. Consequently, we hypothesize that the value system of a country, measured through its legal system (which determines its debtor and creditor protection laws) is an explanatory variable when observing and estimating the growth rates of a nation. Ultimately, we wish to show that countries that have more rigid and definitive creditor protection laws are more likely to experience higher growth rates that their peers that do not have such laws in place. These growth rates are therefore dependent upon the value system of the country and not entirely upon their credit relationship with the IMF as determined by other authors.

Literature Review

In its purest and initial stages, the IMF was originally designed to help countries in distress reduce its balance-of-payments deficits. However, its role has constantly been evolving and many critics speculate as to whether this change has been at all beneficial to poorer member countries. Consequently, over the last two decades, the IMF has been constantly under intense scrutiny for its adverse effect on economic growth rates, (Hutchison, 2003; Przeworski and Vreeland, 2000; and Dreher, 2006).

According to Abbott, Andersen and Tarp, 2010; the role held by the IMF began to show significant change after the oil crisis in 1970 and the international debt crisis in the 1980's. During this period the Fund began to shift its focus toward devaluation and macroeconomic stability in order to reduce balance of payments owed by these countries and its new stance, to develop strategy and associated growth policies.

Essentially, the IMF has been increasingly adamant about the purpose of its policies being to help lay a foundation for promoting long run economic growth. However, Stiglitz 2000, 2001, 2004 and Vreeland 2006, have accused the IMF of constructing 'one size fits all' policies that ultimately are too rigid to benefit and meet the needs of underdeveloped nations. Others argue that it is in fact the incompletion of the program that plays a fundamental role in countries missing their target after engaging in a debt repayment program, Krueger, 2004. They find that the Fund may prove to be more beneficial if member countries participating complete the program in its entirety. In addition, Vreeland, 2003 argues that the policies of conditionality held by the Fund, this is the terms of the IMF loan agreement, redistributes income away from the poor. Evidently, this challenges the motivation of the IMF's lead advisors and leads speculators to determine that the Fund is under political influences and not impartially driven by the sole function of reducing balance of payments deficits. Consequently, in the 1990's this led to the creation of new IMF lending facilities that was specifically geared toward assisting low-income countries and transition economies. Still, borrowing countries were not satisfied and accused the IMF of creating new policies that were intrusive, destructive for national ownership and ultimately contradicting the objectives set out by the Fund to accomplish.

The main difference between countries engaged or seeking to engage in an IMF program and those that are not, is essentially that countries who seek out IMF assistance are generally in distress and the latter are usually in better economic health. As a result, it is not fit to hold the IMF responsible for the economic downfall or turmoil experienced by its program participants. However, upon completion or even during the course of the program, there should be some evidence indicating that the program entered into has had some form of a positive impact on the participating country's economical position.

A major study empirically measuring the economic growth rates of countries participating in an IMF program was conducted by Przeworski and Vreeland, 2000. In their study, the only division they made was whether a country was under or not under a loan agreement, making no distinction between the type of agreement entered into by the various countries. Their data which spun the period 1970 through 2000 emerged with 678 loan agreements. Within this sample, the average growth rate of total income was 3.33% with countries participating in the program experiencing an average growth rate of 2.04% and those not under program agreements growing at a rate of 4.39%. They concluded that after controlling for relevant factors, participation in IMF programs do in fact slow economic growth and ultimately, countries are not rewarded for adherence and participation. Barro and Lee 2005 also conducted similar research corroborating Przeworski and Vreeland's story. They found that participation in IMF programs had significantly negative effects on a countries' economic growth.

In light of all the criticisms that the Fund has been receiving, Dreher 2006, conducted additional research accounting for the possibility that the IMF may be falsely held accountable for slowing the economic growth rates of participating countries because these countries were not

completing the program in its entirety. Dreher's research comprised 3 accountability variables accounting for compliance with IMF conditionality. These factors were suspension from the IMF program; whether or not full amount agreed upon was disbursed; and the final variable, to account for whether the full amount agreed upon was withdrawn by the participating country. Even with this more in-depth analysis, controlling for compliance with conditionality, Dreher found that participation in the IMF program does in fact reduce a country's economic growth rate and the overall effect was negative for the participating country.

Analysis from yet another angle had been conducted by Easterly, 2005. In his research, he categorized IMF loan program participation as a dependent variable, one in which entirely depends upon the economic health of the nation, this assumption is perfectly rational since all countries approaching the Fund for a loan are either in great distress or on the verge of being so. He asserted that if the loan program was in fact working and beneficial to the participating country then the probability of receiving a new loan when a loan had already been issued should be decreasing, unfortunately in his findings this was not so. To this end, Easterly raised criticisms and concerns as to why the Fund repeatedly made loans to underdeveloped and developing countries when previous loans showed no signs of improvement to balance of payments and their economies.

In retrospect, Dreher 2004 has found that the Fund has frequently been used as an insurance cover against adverse shocks to the borrowing nation's economy. Consequently, they have also found evidence of moral hazard where countries taking loans reduce precautions they usually take to prevent a crisis and in other cases intentionally generate a crisis since they are equipped with these IMF loans. As a result, the Fund has been further criticized as being inappropriate in the conditions extended upon loan request. In some instances, they appear too rigid where the terms are so strict that countries most in need are unable to abide and therefore do not benefit whereas in other cases countries are able to create moral hazard and erroneously benefit from the Fund's loan programs.

Evidently, cases of this has been speculated upon and documented, particularly in the bailout case in Mexico in 1995. In this case, the Fund extended $18 billion US to Mexico. Here, it was believed that the decrease in the spread in the bond market of emerging economies and the inflow of international capital was a result of the IMF loan. However, this view was shattered when the IMF failed to prevent the default in Russia in 1998. They also indicate, concerning the findings in Mexico that net flows of short term foreign debt as a percentage of total external net debt flows are influenced by the IMF; proof of the moral hypothesis hazard that showed itself only after the 1995 bailout.

Bird, Hussain and Joyce, 2004 divides the Fund's member countries into three basic categories, non-users, infrequent users and frequent or multiple users. In general, non-users have their balance of payments relationships under control and have access to enough credit and capital to seek out private loans. The infrequent users generally also have access to private capital but occasionally may hit a speed bump, run out of private capital, where they are forced to approach the Fund. The frequent or multiple users are usually in the most desperate position. They are in dire need of external capital, deemed most risky and therefore lack the credit and resources to approach private lending entities. To this end they must approach the Fund as a measure of last resort. Bird et al conjecture that balance of payments deficits experienced by many low income countries may in fact be a result of macroeconomic mismanagement, instability and poor domestic policy. Theoretically, these are precisely the type of policies that the Fund has been changed to rectify and improve.

Their study makes two basic assessments about the type of borrowers and the challenges they face that causes them to be recurrent participants in the IMF loan programs. Bird et al distinguishes between two types of issues faced by many low income countries namely, illiquidity and insolvency. For infrequent borrowers, a benign liquidity problem may be easily rectified by a loan disbursement by the Fund and so they are able to overcome a crisis. However, for frequent

borrowers, their recurring participation in the Fund's loan programs may be as a result of insolvency problems which, unlike liquidity issues, are more long term and intransient. Evidently, since insolvency problems are not easily corrected and certainly not by a mere loan from the IMF, these countries are often pushed to approach the Fund again and again just to maintain a functional economy.

In addition to insolvency problems, they found that countries with weak bureaucratic institutions are also more likely to be incapable of implementing and adhering to policies adopted to restore external equilibrium and increase economic growth. Consequently, these countries may remain dependent on IMF funding for extended periods of time.

Przeworski and Vreeland, 2000 in their study, determined that countries who enter into a loan agreement with the Fund do so because they are either desperate for foreign reserves or need to reduce budget deficits or both. They find that these programs reduce growth in these countries while they are under the program, and they never reap compensatory benefits when they complete or no longer participate in the program. In their analysis, Przeworski and Vreeland conjectured that perhaps countries need to experience slowing growth while under those specific types of economic crises (low foreign reserves or high budget deficits), however they find that countries who do not enter IMF loan programs with comparably high domestic deficits and foreign reserve crises still have higher growth rates than their comparable peers who participate in the Fund's loan programs.

As noted in Bird (1996), the demand for IMF credits is positively correlated with balance - of -payments deficits and negatively correlated with availability of alternative means of financing. Evidently, balance - of - payments deficits is a direct spillover of domestic fiscal and monetary mismanagement, increased import prices and overvalued exchange rates. Ultimately, Bird concludes that since the IMF is a source of last resort lending it can be expected to be inversely related to the level of economic development in an emerging market. In addition, studies conducted around IMF lending suggests that the probability that a country will request IMF credit, in the short run, is positively related to its previous involvement with the Fund [See Bird (1996)].

He also notes that many countries tend to resist borrowing from the IMF even if they are in dire need as a result of the perceived political cost attached. In addition while the Fund had high stipulations and conditions attached to borrowing researchers have found that the Fund relaxed its conditions and requirements necessary to receive credit immediately after the 1982 debt crisis.

Consequently, it became easier at this time for countries to engage in IMF borrowing and thereby this action taken by the IMF increased the likelihood of countries being unable to repay, as well as the hold that the Fund had on their economy.

Bird has also determined that since a loan from the IMF is laid out as temporary and revolving, receivership of the loan should be looked at as a failure on a country's path. In addition, if the Fund's program does not encourage economic improvement for countries who took credit but instead engender the same countries to engage in requesting additional credits without showing signs of paralleling improvement, the Fund has also failed at its pre-assigned purpose.

Bird finds that though countries exhibit the criteria necessary to meet conditions to receive the Fund's credit, the goal, of improving the country's macroeconomic conditions are often left unrealized. While some argue that the Fund does a poor job on following up on the countries that undertake their debt to ensure that they comply with the conditions with which the money was lent, there is also speculation, arguing, that these countries may have been overachievers setting their goals unrealistically high [See Bird (1996)].

Joyce (1992) finds that countries more likely to enter Fund arrangements are countries which have excessively high ratios of government expenditure to GDP and low ratios of international reserves to imports. These countries evidently exhibit signs of distress, hence contributing to the theory of failure on their part. Logit regressions conducted by Joyce on 29 countries during the period (1972-1984) illustrate that the most significant determinants of a country's likelihood to apply for IMF credit are inflation, export growth, the ratio of foreign

exchange reserves to imports, the ratio of external debt to GNP, the ratio of net foreign direct investment to GNP and the rate of nominal exchange rate depreciation. In addition, it was also found by Edwards and Santaella (1993) that participation in an IMF program is also a determinant in a country's likelihood to devalue its currency.

Oftentimes the IMF has been accused of strategically positioning itself to have a semi-permanent presence in many needy, developing countries. The programs that they initiate and fund sometimes enable countries in their downward spiral, causing them to be dependent on their (the IMF's) funding for a long haul.

In the 1980's the only users of the Fund were developing nations. The need for IMF funding exponentially increased during the oil shocks of the 1970's and the rapid growth of commercial bank lending in the 1980's which led to the debt crisis. Initially the Fund worked as a credit union, pooling the funds of various countries with each being allowed to draw from it as necessary. After the crises of the 80's and the oil shock of the 70's the role of the IMF began to shift. The IMF began to act as a financial intermediary, borrowing resources from one group of countries and lending to another group of countries. As the Fund's role began to change they started to take on a more political agenda encouraging its members to utilize their credit. Finally, the Fund was now being criticized for being part of the problem by taking resources from debtor countries instead of creating wealth.

Essentially, in this paper, I intend to contribute to the literature by adding another layer of analysis on the work currently done on this topic. I will analyze the impact of a country's legal affiliation on their IMF loan status, (that is whether they have fully completed loan repayment, have a current balance or never participated in an IMF loan program), their annual GDP growth rates and other temperature gauging variables of their economy including inflation and interest rates.

The nature of the program, as argued by the decision makers of the Fund, is designed to help countries reduce balance of payments deficits, expand economic growth and increase the benefits of international trade. However, these benefits, they argue, will only be realized if countries adhere completely to the terms of the loan program and upon completion fully repay their debt. They claim that all these elements are necessary for a country to begin seeing the positive effects of completing the IMF loan program.

In addition, Eaton and Gersovitz (1981) argue that countries repay loans to avoid developing a reputation for defaulting and thereby obstructing access to international capital. Alfaro and Kanczuk 2005, also argue that delaying repayment is a commonly observed feature of the process of defaulting which they label, "muddling through". They claim that this process of delaying repayment tends to exacerbate a recession.

Consequently, by making a distinction between countries that are currently engaged in an IMF loan program and those that have completed a program including repayment, we can make an assessment of whether the IMF should rule more strictly to discourage or deny loan applicants that are deemed most likely to default as it could have a negative impact on their overall economy in the long run.

However, the contribution of this study is to analyze the impact that each country's value system has on their economic growth while observing their involvement with the IMF. Ultimately, we want to analyze whether retarded economic growth is a generic result of participating in an IMF loan program, where the construct of the IMF and its policies are at fault or whether there are other explanatory variables. According to La Porta et al (1997) there is strong evidence to suggest that the legal environment of a nation has a large and significant impact on the size and breadth of the country's capital markets.

The legal systems considered in this paper are the historical legal partitions made in La Porta, Lopez de Silanes and Shleifer and Vishney (2000). The main divisions are Common Law and Civil Law. Common law is of English origin while Civil law is of French, German and Scandinavian origin. La Porta et al (2000) identify how corporate governance affects the real economy of a nation

in three distinct ways. They illustrate that the investor protection structure of a nation, which essentially stems out of its legal system has a direct effect on the real economy. Firstly, it enhances savings and then these savings are channeled into real investments fostering capital accumulation. Finally the result of a stable and dependable corporate governance structure engenders the resources of a nation being directed into industrious uses and ultimately being more productively allocated.

Mina and Vasquez (2006) has also reinforced this assertion by noting that countries with poor and absent law enforcement institutions are generally unstable and indeed increase uncertainty about their structure. They also find in research that weak legal systems result in lower levels of international lending as investors with lower wealth levels find it unprofitable and too risky to invest internationally.

In addition to observing the legal structure of the borrowing countries, we also observe their repayment status to confirm the reports of Eaton and Gersovitz (1981) and Alfaro and Kanczuk (2005) who find that countries repay loans to avoid developing a reputation for defaulting and consequently obstructing access to international capital. Respectively, they also find that delaying repayment is a commonly observed feature of the process of defaulting which they label as "muddling through" and they conclude that this process of delaying repayment has a tendency of exacerbating a recession.

Nonetheless, the main focus of this paper is to observe the impact of the value system of a country on its national debt, more specifically, its IMF debt. The motivation behind observing each nation's value system is that according to La Porta et al (2000) investor protection laws directly influences the real economy. In addition, Beck, Levine, Loayza (2000) and Wrugler (2000) show that developing the financial constructs of a nation accelerates economic growth. Most importantly, Levine and Zervos (1998); Rajan and Zingales (1998) and Carlin and Mayer (1999) highlights in their article that financial market development, assessed by using the legal origin of each nation as an instrument, predicts economic growth.

We assess the value system as in David and Brierley (1985), La Porta et al (1997, 1998) who states that countries differ enormously in the extent to which they afford legal protection to investors. Conclusively, if countries differ in the extent in which they provide legal protection and these laws drive the economic and financial development of a nation then we can confer that these countries also approach their national debt in differently and consequently, these laws can be reflective of a nation's attitude toward IMF debt. In essence we hypothesize that their internal corporate governance laws mirror their macroeconomic and political priorities.

Common Law and Civil Law Tradition

La Porta and Lopez de Silanes (1997, 1998) are most thorough in describing the characteristics of Common Law and Civil Law traditions. Countries that follow common law tradition are most protective of shareholders, highly protective of creditors and provide companies with better access to external equity finance. In their research they find that common law countries have an outsider held stock to GNP ratio of 60%. This is indicative of the perks of the common law traditions which value the protection of shareholders. It provides evidence that rational investors are hesitant to invest in countries in which their investments and rights are not protected.

Alternately, countries that abide by civil law tradition are less protective of investor rights. La Porta et al (1997, 1998) partitions countries of civil law tradition into French, German and Scandinavian origin and find that French and German Civil Law countries lack definitive investor protection laws. In addition, countries boasting of the French civil law system possess and average outsider held stock to GNP ratio of 21%, a mere third of the ratio held by countries of common law tradition. Of the civil law tradition, countries of Scandinavian tradition have the best shareholder protection laws while countries of French Civil law tradition are the least protective of creditors.

In addition to the impact of having investor protection laws that value shareholder rights, law enforcement is equally as critical. La Porta et al (1997, 1998) have found in their studies that investors do in fact enjoy high levels of protection despite bad laws if there is an efficient judiciary system in place. In their research they measure the level of law enforcement using the Business International Corporation, International Country Risk Guide. Their research also finds that richer countries enforce laws more effectively and generally have a less corrupt government, relative comparable governments.

In line with the characteristics found present in civil law countries, French civil law tradition exhibits the worst quality of law enforcement, whereas German and Scandinavian civil law countries have the best quality of law enforcement within civil law constructs.

Figure 6

Average GDP growth rates of Emerging Markets from 1981-2011 (%)

Common Law		Civil Law		Civil and Religious	
India	6.27	Argentina	2.62	Bahrain	4.42
Malaysia	5.96	Brazil	2.60	Egypt	4.97
Mauritius	5.06	Bulgaria	1.87	Indonesia	5.35
Pakistan	4.97	Chile	4.72	Jordon	4.52
Philippines	3.16	China	10.09	Morocco	3.81
South Africa	2.30	Colombia	3.47	Oman	6.29
Sri Lanka	4.87	Czech Republic	2.08	United Arab Emirates	3.41
Thailand	5.63	Estonia	1.92		
		Hungary	1.32		
		Kuwait	3.44		
		Latvia	1.59		
		Lithuania	1.63		
		Mexico	2.42		
		Peru	3.10		
		Poland	3.52		
		Romania	1.24		
		Russia	1.12		
		Slovakia	3.76		
		Turkey	4.33		
Average	4.78		2.99		4.68

Figure 6 shows that the average annual GDP growth rates of common law countries are highest followed by civil and religious law countries with civil law countries experiencing the weakest annual GDP growth rates. This shows preliminary support for our hypotheses that IMF loan engagement is not solely responsible for slurred growth rates experienced by emerging markets.

Methodology

In order to assess the role played by the legal structure of a country in determining its growth rates we do a Random Effects panel data analysis observing several variables including the loan relationship that the country has with the Fund.

The purpose of this paper is to analyze the impact of a country's legal system on their IMF involvement. We will observe the annual GDP growth rates of emerging markets, when segmented and grouped collectively by observing these countries' IMF relationship and legal structure. We will identify whether they are involved in an IMF program, the size of the loan, their current repayment status and whether their debt is completely cleared. To observe the effect of each legal system we will examine their GDP growth rates, imports of goods and services, inflation, exchange rates and real interest rates. The contribution I intend to make with this paper is to assess whether countries perform poorly because they engage in an IMF loan program or whether their annual growth rates are also dependent on their legal system in addition to them participating in the IMF loan program. The emerging markets that I will consider are countries defined as emerging markets by Dow Jones in 2010. This list includes Argentina, Bahrain, Brazil, Bulgaria, Chile, China, Columbia, Czech Republic, Egypt, Estonia, Hungary, India, Indonesia, Jordan, Kuwait, Latvia, Lithuania, Malaysia, Mauritius, Mexico, Morocco, Oman, Pakistan, Peru, Philippines, Poland, Qatar, Romania, Russia, Slovakia, South Africa, Sri Lanka, Thailand, Turkey and United Arab Emirates. Though there are many more emerging markets across the globe, these selected, as defined by Dow Jones, have more easily attainable historical data available.

First we gather data on our 34 emerging markets regarding loans solicited from the IMF, the amount of the loan the frequency in which each country engaged in an IMF program. This data is publicly available on the IMF's official website.

The GDP growth rates according to Bartelsman and Beaulieu in 'A Consistent Accounting of US Productivity Growth', is the sum of income received by all sectors of an economy in a country. It includes all wages, taxes and profits less subsidies and this number should reflect the market value of all final goods and services made within the borders of the country in a specific year. Consequently, this is a good indicator of measuring the temperature of an economy. For this reason we consider GDP as a major explanatory variable in determining a the impact of a country's legal system.

Tables 1-4 are some preliminary analysis of the variables in question.

Table 1

Descriptive Statistics of countries' annual GDP growth rates (in percentages) over the period 1981-2010

Country	Mean	Std Dev	Variance	Minimum	Maximum
China	10.09	2.83	8.01	3.80	15.20
Oman	6.29	5.08	25.79	-3.44	17.05
India	6.27	2.26	5.13	1.06	9.82
Malaysia	5.96	4.04	16.29	-7.36	10.00
Thailand	5.63	4.55	20.71	-10.51	13.29
Indonesia	5.35	4.07	16.55	-13.13	9.08
Mauritius	5.06	2.18	4.74	0.38	9.74
Pakistan	4.97	1.99	3.96	1.01	7.92
Egypt	4.97	1.87	3.51	1.08	9.91
Sri Lanka	4.87	1.91	3.67	-1.55	8.01
Chile	4.72	4.42	19.54	-10.32	12.28
Jordan	4.52	4.96	24.64	-13.45	18.66
Bahrain	4.42	4.51	20.38	-7.56	12.87
Turkey	4.33	4.41	19.47	-5.70	9.49
Morocco	3.81	4.68	21.91	-6.58	12.22
Slovakia	3.76	8.86	78.50	-14.57	42.12
Poland	3.52	2.63	6.92	-7.00	7.09
Colombia	3.47	2.26	5.10	-4.20	6.90
Kuwait	3.44	10.77	116.04	-19.03	33.99
United Arab Emirates	3.41	6.96	48.43	-18.78	17.53
Philippines	3.16	3.52	12.37	-7.32	7.63
Peru	3.10	6.15	37.83	-11.80	12.82
Argentina	2.62	6.51	42.40	-10.89	12.67
Brazil	2.60	3.32	11.05	-4.39	7.99
Mexico	2.42	3.64	13.28	-6.22	8.77
South Africa	2.30	2.42	5.85	-2.14	5.60
Czech Republic	2.08	3.53	12.46	-11.61	6.81
Estonia	1.92	7.37	54.35	-21.17	10.80
Bulgaria	1.87	5.30	28.05	-9.12	10.94
Lithuania	1.63	7.69	59.15	-21.26	10.25
Latvia	1.59	9.26	85.82	-32.12	12.23

Table 1 reports the descriptive statistics of the GDP growth rates. These include the mean, standard deviation, variance, minimum and maximum of each country. We can observe that Kuwait, Latvia, Slovakia and Lithuania have the highest standard deviation of growth rates from 1981-2010 whereas rapidly growing economies like China, Oman and India have the highest mean growth rates. This is indicative of the steadily increasing growth rates of more stable economies in spite of shocks experienced, as expected.

Table 2

Descriptive Statistics of annual mean GDP in billions from 1981-2010

	Mean	Std Deviation	Variance	Minimum	Maximum
China	$ 1,262.17	$ 1,036.35	$ 1,074,014.61	$ 216.31	$ 3,834.55
Russia	$ 719.16	$ 138.46	$ 19,170.19	$ 484.77	$ 943.87
Brazil	$ 712.19	$ 170.77	$ 29,162.93	$ 476.71	$ 1,092.51
Mexico	$ 663.47	$ 158.23	$ 25,035.69	$ 460.50	$ 935.60
India	$ 527.64	$ 292.24	$ 85,401.51	$ 201.39	$ 1,241.58
Turkey	$ 335.60	$ 121.62	$ 14,791.33	$ 162.49	$ 564.02
Poland	$ 227.07	$ 74.75	$ 5,587.47	$ 136.60	$ 382.46
Indonesia	$ 202.78	$ 85.72	$ 7,347.64	$ 80.88	$ 377.28
South Africa	$ 196.83	$ 44.21	$ 1,954.95	$ 147.13	$ 288.44
Argentina	$ 152.27	$ 40.19	$ 1,615.02	$ 106.38	$ 253.62
Thailand	$ 118.52	$ 52.84	$ 2,792.52	$ 41.77	$ 210.08
Colombia	$ 113.13	$ 34.52	$ 1,191.77	$ 66.38	$ 183.22
Czech Republic	$ 103.95	$ 19.02	$ 361.64	$ 77.92	$ 144.67
Romania	$ 90.30	$ 14.21	$ 202.05	$ 70.71	$ 123.89
United Arab Emirates	$ 88.64	$ 37.33	$ 1,393.41	$ 45.58	$ 165.23
Malaysia	$ 88.02	$ 44.72	$ 1,999.45	$ 30.82	$ 171.47
Hungary	$ 87.04	$ 14.20	$ 201.73	$ 69.71	$ 112.81
Chile	$ 78.25	$ 35.20	$ 1,239.30	$ 32.32	$ 138.73
Pakistan	$ 78.08	$ 31.21	$ 973.88	$ 32.79	$ 139.62
Philippines	$ 76.78	$ 23.91	$ 571.82	$ 49.28	$ 131.14
Egypt	$ 68.61	$ 28.01	$ 784.31	$ 30.80	$ 131.24
Peru	$ 62.90	$ 19.00	$ 361.14	$ 43.75	$ 112.14
Slovakia	$ 52.88	$ 15.22	$ 231.73	$ 29.45	$ 85.84
Kuwait	$ 52.85	$ 21.14	$ 447.08	$ 28.60	$ 95.24
Morocco	$ 44.33	$ 14.65	$ 214.53	$ 24.63	$ 75.41
Bulgaria	$ 24.63	$ 4.46	$ 19.86	$ 19.58	$ 34.80
Oman	$ 22.41	$ 9.52	$ 90.72	$ 7.01	$ 42.38
Lithuania	$ 21.39	$ 4.66	$ 21.72	$ 13.91	$ 31.67
Sri Lanka	$ 17.08	$ 7.24	$ 52.35	$ 8.01	$ 33.25
Latvia	$ 12.77	$ 3.16	$ 10.00	$ 8.12	$ 19.80
Estonia	$ 10.26	$ 2.66	$ 7.07	$ 6.68	$ 16.42
Bahrain	$ 9.00	$ 4.12	$ 16.98	$ 4.38	$ 17.82
Jordon	$ 8.78	$ 3.61	$ 13.01	$ 4.60	$ 16.74
Mauritius	$ 4.35	$ 1.86	$ 3.44	$ 1.79	$ 7.82

Table 2 represents the descriptive statistics on the emerging markets GDP in billions. As in Table 1 we want to observe and analyze the mean, variance, maximum and minimum of the GDP of the emerging markets represented in our data set. It is noteworthy to observe that China, Russia, Brazil and Mexico also have among the highest average GDP. These emerging markets are as aforementioned, the fastest growing in the world.

Table 3

Debt incurred by countries through IMF lending

Country	Total Amt drawn in SDR's (millions)	IMF credit status
Argentina	23,478,810.00	0
Brazil	62,128.72	0
Turkey	36,099.00	1
Indonesia	11,104.82	0
Romania	10,100.00	1
Hungary	7,693.70	1
Russia	6,926.16	0
Pakistan	6,262.46	1
India	6,107.93	0
Thailand	2,760.00	0
Mexico	1,939.50	0
Philippines	1,908.63	0
Chile	1,370.25	0
Latvia	982.24	1
Bulgaria	867.62	0
China	597.73	0
Jordan	341.06	1
Poland	283.30	0
Morocco	276.40	0
Sri Lanka	205.89	1
Egypt	147.20	0
Lithuania	134.55	0
Mauritius	98.50	0
Czech Republic	70.00	0
Slovakia	32.15	0
Bahrain	0.00	-1
Colombia	0.00	-1
Estonia	0.00	-1
Kuwait	0.00	-1
Malaysia	0.00	-1
Oman	0.00	-1
Peru	0.00	-1
Qatar	0.00	-1
South Africa	0.00	-1
United Arab Emirates	0.00	-1

Special Drawing Rights (SDRs) is an asset of the IMF known as international reserves designed to supplement the reserves of its member countries.

Table 3 notes the total amount drawn by the emerging markets over the period 1980-2009 as well as the IMF credit status of each emerging market. This data is divided up into 3 variables: -1 for "never received credit from the IMF during our time period 1980 to 2009", 0 for "received credit from IMF but currently has no outstanding debt" and 1 for "received credit from IMF and still carries a balance on the account."

Key Variables

IMF_PURCHASES__DIS__CURR:

IMF purchases are total drawings on the General Resources Account of the IMF during the year specified, excluding drawings in the reserve tranche. Data are in current U.S. dollars.

GDP_GROWTH__ANNUAL___:

This variable is the annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

IMPORTS_OF_GOODS_AND_SER:

Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.

IMPORTS_OF_GOODS_AND_01:

This variable is the annual growth rate of imports of goods and services based on constant local currency. Aggregates are based on constant 2000 U.S. dollars. Imports of goods and services represent the value of all goods and other market services received from the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. They exclude compensation of employees and investment income (formerly called factor services) and transfer payments.

INFLATION__CONSUMER_PRIC:

Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.

LOANSTAT:

This variable represents the status of each country's IMF loan involvement. There are three categories represented in this variable. 1, 0 and -1. If the country is currently indebted to the IMF, as of 2012 they get a label of '1', if they once owed the IMF but now have a zero balance, they are labeled '0' and if they never engaged in an IMF loan program they are labeled as '-1'.

OECDMEM:

This variable represents each country's membership status with the Organization for Economic Co-operation and Development. If the country is a member of the OECD they are given a '1' and if they are not they are given a '0'.

OFFICIAL_EXCHANGE_RATE__:

Official exchange rate refers to the exchange rate determined by national authorities or to the rate determined in the legally sanctioned exchange market. It is calculated as an annual average based on monthly averages (local currency units relative to the U.S. dollar).

REAL_INTEREST_RATE____:

Real interest rate is the lending interest rate adjusted for inflation as measured by the GDP deflator.

LEGAL:

This variable represents the legal system of a country. If the country follows Common Law rule, they get a '0', if they follow Civil Law rule they get a '1' and if they follow Civil and Religious Law rule they get a '-1' .

LEGALCIVCOM

This variable is a broader categorization of the legal system of each country and makes no distinction between Civil Law and Civil and Religious Law. If they follow Common Law rule they are given a '-1' and if they follow Civil Law rule they are given a '1'.

Table 4a

Pairwise Granger Causality Tests among variables

Lags: 2			
Null Hypothesis:	Obs	F-Stat	Prob.
IMF_PURCHASES__DIS__CURR does not Granger Cause GDP_GROWTH__ANNUAL___	687	2.174	0.1145
GDP_GROWTH__ANNUAL___ does not Granger Cause IMF_PURCHASES__DIS__CURR		1.3029	1.303
IMPORTS_OF_GOODS_AND_01 does not Granger Cause GDP_GROWTH__ANNUAL___	810	0.460	0.6314
GDP_GROWTH__ANNUAL___ does not Granger Cause IMPORTS_OF_GOODS_AND_01		9.3898	9.390
IMPORTS_OF_GOODS_AND_SER does not Granger Cause GDP_GROWTH__ANNUAL___	896	0.763	0.4665
GDP_GROWTH__ANNUAL___ does not Granger Cause IMPORTS_OF_GOODS_AND_SER		6.6417	6.642
INFLATION__CONSUMER_PRIC does not Granger Cause GDP_GROWTH__ANNUAL___	814	0.094	0.9105
GDP_GROWTH__ANNUAL___ does not Granger Cause INFLATION__CONSUMER_PRIC		6.8150	6.815
LOANSTAT does not Granger Cause GDP_GROWTH__ANNUAL___	947	6.241	0.0020
GDP_GROWTH__ANNUAL___ does not Granger Cause LOANSTAT		3.9356	3.936
OECDMEM does not Granger Cause GDP_GROWTH__ANNUAL___	947	0.095	0.9092
GDP_GROWTH__ANNUAL___ does not Granger Cause OECDMEM		2.4760	2.476
IMPORTS_OF_GOODS_AND_01 does not Granger Cause IMF_PURCHASES__DIS__CURR	661	0.065	0.9375
IMF_PURCHASES__DIS__CURR does not Granger Cause IMPORTS_OF_GOODS_AND_01		3.8692	3.869
IMPORTS_OF_GOODS_AND_SER does not Granger Cause IMF_PURCHASES__DIS__CURR	679	2.959	0.0525
IMF_PURCHASES__DIS__CURR does not Granger Cause IMPORTS_OF_GOODS_AND_SER		0.5204	0.520
INFLATION__CONSUMER_PRIC does not Granger Cause IMF_PURCHASES__DIS__CURR	633	0.062	0.9398
IMF_PURCHASES__DIS__CURR does not Granger Cause INFLATION__CONSUMER_PRIC		0.0247	0.025
LOANSTAT does not Granger Cause IMF_PURCHASES__DIS__CURR	689	9.978	0.0001
IMF_PURCHASES__DIS__CURR does not Granger Cause LOANSTAT		1.5001	1.500
OECDMEM does not Granger Cause IMF_PURCHASES__DIS__CURR	689	57.603	0.0000
IMF_PURCHASES__DIS__CURR does not Granger Cause OECDMEM		0.0428	0.043
OFFICIAL_EXCHANGE_RATE__ does not Granger Cause IMF_PURCHASES__DIS__CURR	683	0.441	0.6437
IMF_PURCHASES__DIS__CURR does not Granger Cause OFFICIAL_EXCHANGE_RATE__		1.2550	1.255
REAL_INTEREST_RATE____ does not Granger Cause IMF_PURCHASES__DIS__CURR	513	7.240	0.0008
IMF_PURCHASES__DIS__CURR does not Granger Cause REAL_INTEREST_RATE____		1.5162	1.516
IMPORTS_OF_GOODS_AND_SER does not Granger Cause IMPORTS_OF_GOODS_AND_01	810	11.987	0.0000
IMPORTS_OF_GOODS_AND_01 does not Granger Cause IMPORTS_OF_GOODS_AND_SER		8.4777	8.478
INFLATION__CONSUMER_PRIC does not Granger Cause IMPORTS_OF_GOODS_AND_01	744	4.543	0.0109
IMPORTS_OF_GOODS_AND_01 does not Granger Cause INFLATION__CONSUMER_PRIC		3.1046	3.105
LOANSTAT does not Granger Cause IMPORTS_OF_GOODS_AND_01	812	6.607	0.0014
IMPORTS_OF_GOODS_AND_01 does not Granger Cause LOANSTAT		0.2568	0.257
OFFICIAL_EXCHANGE_RATE__ does not Granger Cause IMPORTS_OF_GOODS_AND_01	801	7.420	0.0006

Table 4b

IMPORTS_OF_GOODS_AND_01 does not Granger Cause OFFICIAL_EXCHANGE_RATE__		**1.3927**	**0.2490**
REAL_INTEREST_RATE___ does not Granger Cause IMPORTS_OF_GOODS_AND_01	**625**	**4.4150**	**0.0125**
IMPORTS_OF_GOODS_AND_01 does not Granger Cause REAL_INTEREST_RATE___		**6.2939**	**0.0020**
INFLATION__CONSUMER_PRIC does not Granger Cause IMPORTS_OF_GOODS_AND_SER	817	0.1467	0.8636
IMPORTS_OF_GOODS_AND_SER does not Granger Cause INFLATION__CONSUMER_PRIC		**3.5862**	**0.0281**
LOANSTAT does not Granger Cause IMPORTS_OF_GOODS_AND_SER	908	2.0820	0.1253
IMPORTS_OF_GOODS_AND_SER does not Granger Cause LOANSTAT		0.4726	0.6235
OECDMEM does not Granger Cause IMPORTS_OF_GOODS_AND_SER	**908**	**4.7671**	**0.0087**
IMPORTS_OF_GOODS_AND_SER does not Granger Cause OECDMEM		0.9634	0.3820
OFFICIAL_EXCHANGE_RATE__ does not Granger Cause IMPORTS_OF_GOODS_AND_SER	**882**	**2.9787**	**0.0514**
IMPORTS_OF_GOODS_AND_SER does not Granger Cause OFFICIAL_EXCHANGE_RATE__		0.4107	0.6633
REAL_INTEREST_RATE___ does not Granger Cause IMPORTS_OF_GOODS_AND_SER	682	0.2776	0.7577
IMPORTS_OF_GOODS_AND_SER does not Granger Cause REAL_INTEREST_RATE___		1.7908	0.1676
LOANSTAT does not Granger Cause INFLATION__CONSUMER_PRIC	835	1.6691	0.1890
INFLATION__CONSUMER_PRIC does not Granger Cause LOANSTAT		0.1975	0.8208
OECDMEM does not Granger Cause INFLATION__CONSUMER_PRIC	835	0.2383	0.7880
INFLATION__CONSUMER_PRIC does not Granger Cause OECDMEM		0.0524	0.9490
OFFICIAL_EXCHANGE_RATE__ does not Granger Cause INFLATION__CONSUMER_PRIC	831	0.1072	0.8983
INFLATION__CONSUMER_PRIC does not Granger Cause OFFICIAL_EXCHANGE_RATE__		0.0147	0.9854
REAL_INTEREST_RATE___ does not Granger Cause INFLATION__CONSUMER_PRIC	**633**	**6.4301**	**0.0017**
INFLATION__CONSUMER_PRIC does not Granger Cause REAL_INTEREST_RATE___		**45.4015**	**0.0000**
OECDMEM does not Granger Cause LOANSTAT	1020	0.0922	0.9120
LOANSTAT does not Granger Cause OECDMEM		0.8620	0.4226
OFFICIAL_EXCHANGE_RATE__ does not Granger Cause LOANSTAT	935	0.1594	0.8527
LOANSTAT does not Granger Cause OFFICIAL_EXCHANGE_RATE__		**13.2660**	**0.0000**
REAL_INTEREST_RATE___ does not Granger Cause LOANSTAT	**693**	**3.6939**	**0.0254**
LOANSTAT does not Granger Cause REAL_INTEREST_RATE___		0.3577	0.6994
LEGAL_STAUS does not Granger Cause GDP_GROWTH__ANNUAL__	734	1.60378	0.20184
GDP_GROWTH__ANNUAL__ does not Granger Cause LEGAL_STAUS		0.63715	0.52909
LOAN_STATUS does not Granger Cause GDP_GROWTH__ANNUAL__	**734**	**8.57563**	**0.00021**
GDP_GROWTH__ANNUAL__ does not Granger Cause LOAN_STATUS		**3.18623**	**0.04190**
LOAN_STATUS does not Granger Cause LEGAL_STAUS	798	0.70758	0.49315
LEGAL_STAUS does not Granger Cause LOAN_STATUS		**2.50492**	**0.08233**

significance: * 10%, ** 5%, *** 1% level

The results of Table 4a and 4b highlight the causal relationships that exist between our variables. Loan status in our study is represented by a dummy variable that takes three values. 1, if the country currently owes the IMF, 0 if the country has fully repaid their debt to the Fund and -1 if the country never engaged in an IMF loan relationship. Legal status is also a dummy variable we incorporate where countries that are common law are labeled -1 and those that are civil law are labeled 1. Using only countries that at some point, participated in an IMF loan program (loan status=1,0) we find that legal status granger causes loan status. This is significant at a 10% level.

Our results also indicate that loan status Granger Causes imports of goods and services at a 1% level of significance. This attests to the extent of the impact that a relationship with the Fund has on an economy as well as the importance of completing a loan program in the Fund that has been started.

Another important relationship is that at a 1% level of significance, OECD membership Granger Causes IMF purchases made through the Fund. IMF purchases are the first step of the loan program that a country engages in with the IMF. The OECD (Organization for Economic Co-operation and Development) is an organization whose mission is to create a forum to promote policies to improve the economic and social wellbeing of the people around the world. Further analysis will show that countries who are members of the OECD are less likely to approach the Fund for a loan, also supporting current literature of the necessary restructuring that needs to take place within the IMF.

The variables used in this analysis are loan status, GDP annual growth rates, IMF_purchases, imports of goods and services (both % of GDP and annual % of growth), inflation (annual % of consumer prices), official exchange rate (period average), real interest rate, political affiliation and OECD membership. These variables were gathered from the IMF website, OECD website and The World Bank database.

To conduct our analysis we use Random Effects panel data since panel data is useful to allow us to control for variables that you cannot observe or measure. Essentially, it accounts for individual heterogeneity. This is particularly valuable in our analysis since we are considering country specific variables and there will be country specific factors that will influence our dataset though ultimately impossible to capture in its entirety.

In addition, we employ the Random Effects model because we assume that the variations across countries are assumed to be random and uncorrelated with the independent variables included in our model. In addition to rationalizing our assumption, we also ran a Hausman test that tests whether the unique errors are correlated with the regressors to decide between random and fixed effects. We failed to reject the null hypothesis that the preferred model is random effects model as noted in Green, 2008.

In addition to the Hausman test, we also conducted a Lagram-Multiplier test for serial correlation. Our results indicated that no serial correlation exists among our independent variables to unreasonably inflate our R^2.

Analysis and Results
Table 5

Endogenous Variables

Exogenous Variables		Equation 1		Equation 2	
		Loan Status	**Signif**	**IMF Purch**	**Signif**
	Legal	-0.1827029	0.0170**	$1.62*10^8$	0.196
	Constant	-0.1774945	0.020	$3.67*10^8$	0.003
	Chi square	5.70	0.0169**	1.67	0.1964
	R square (overall)	0.0386		0.0089	

significance: * 10%, ** 5%, *** 1% level

In Equation 1 our sample consist of loan status (1,0): i.e. countries that currently owe the IMF and countries that completely repaid their IMF debt, i.e. debt=0. The exogenous variable is such that Civil law countries=1 and common law countries= -1.
In Equation 2 we use the same sample, loan status (1,0), with the same exogenous variable except our endogenous variable is Loan Amt (IMF purchases) instead of loan status.
Results of equation 1 indicate that legal status is a significant variable in determining loan status, equation 2 which tries to determine the relationship between loan size and legal status is not significant.

Table 6

Endogenous variables

Exogenous Variables	Equation 3	
	GDP growth	**Signif**
Legal	-0.7907769	0.090
Constant	4.130469	0.000
Chi square	2.87	0.0901*
R square (overall)		0.0164

significance: * 10%, ** 5%, *** 1% level

Equation 3 shows the relationship between the economic growth rate of a country and its legal status. Our sample consists only of loan status (1,0). That is countries that currently owe the IMF and countries that fully repaid its IMF debt. The negative coefficient on legal status indicates that common law countries (legal=-1) experiences a positive growth rate while engaging in IMF debt and civil law countries (legal=1) experiences declining economic growth while engaging in IMF debt. This is a very significant finding in this paper

Table 7

Endogenous Variables

Exogenous Variables	Equation 4		Equation 5	
	Loan Status	**Signif**	**IMF Purch**	**Signif**
Legal	-0.1753489	0.140	$1.05*10^8$	0.185
AnnGDPgrwthRt	-0.0058817	0.431	$-7.99*10^7$	0.000***
ImportsGoods	0.0029636	0.303	$-1.36*10^7$	0.001***
Inflation	-0.0021432	0.001***	2584027	0.073*
OfficialExchangRt	0.0001501	0.000***	35671.26	0.452
RealInterestRt	-0.0004189	0.897	$3.94*10^7$	0.000
Constant	-0.0420226	0.806	$9.75*10^8$	0.000
Chi square	39.78	0.000	100.13	0.0000
R square (overall)		0.0408		0.1940

significance: * 10%, ** 5%, *** 1% level

Equation 4 uses the loan status of (1,0) to determine the relationship between loan status and legal status in the presence of control variables. The control variables we use are GDP growth rate, imports of goods and services, inflation, official exchange rate and real interest rate. After controlling for those variables, the relationship between legal status and loan status diminishes. The legal status is no longer a significant variable in explaining loan status.

Equation 5 which has the current balance of the borrowing country as an endogenous variable yields similar results.

This finding indicates that other variables are instrumental in determining the loan status of a country. Those significant variables are inflation and official exchange rates. This is consistent with the findings of Joyce (1992) who highlights that countries with high inflation and currency exchange rates are most likely to enter into an IMF loan program.

Table 8

Endogenous Variables

Exogenous Variables	Equation 6	
	OutstBal:TotBrw	**Signif**
AnnGDPgrwthrate	-0.0036785	0.028**
ImportsGds	-0.0001133	0.888
Inflation	-0.0001014	0.455
OfficialExchangRt	$-3.84*10^{6}$	0.600
RealInt	-0.0003378	0.636
Constant	.9127678	0.000
Chi square	4.97	0.4190
R square (overall)		0.0003

significance: * 10%, ** 5%, *** 1% level

In equation 6 we explain the outstanding balance as a proportion to total amount borrowed from the Fund using control variables minus the legal status of the county. Results of this equation indicate that annual GDP growth rates is the only explanatory variable, outside of legal status that can explain the outstanding balance held by borrowing countries.

Table 9

Endogenous Variables

	Equation 7 (before loan)		Equation 8 (after loan)	
	GDP grwthrt	**Signif**	**GDP grwthrte**	**Signif**
GNI annual growth	1.023543	0.000	.8956706	0.000
Inflation	.002585	.002585	-.0004619	0.051
CPI	.0151571	0.090	.0003015	0.822
AdjustnetAnnIncome	-.0212387	0.284	.0016713	0.899
AdjustedSavings	-.0018674	0.890	-.0029269	0.652
ExportsGdsServices	.0066375	0.371	.0151194	0.006
Constant	-.0973662	0.624	.3723657	0.005
Chi square	4598.83	0.0000	7177.05	0.000
R square (overall)		0.9952		0.9182

significance: * 10%, ** 5%, *** 1% level

In table 9 we use several variables to help determine the GDP growth rates of the emerging markets in question. Dotsey (1998), Bernanke and Mishkin (1997) and Estrella and Mishkin (1998) reveal that the variables most significant in determining GDP growth rates are annual gross national income growth rates, inflation, consumer price index, adjusted income, savings and exports of goods and services.

Equation 7 predicts the growth rates of countries prior to engaging in an IMF loan relationship while equation 8 predicts the growth rates of countries after receiving IMF funding.

The Appendix displays graphical representations of the actual GDP growth rates versus the projected pre-loan growth rates.

Conclusion and Policy Implications

The results obtained from our Random Effects regression models present some specific information about the relationships that exist between engaging in an IMF loan program and the economic temperature of the emerging markets studied.

In equation 1, we try to determine the relationship between the loan status and legal status of a country. We only considered the emerging markets that were engaged, at some point, in a loan relationship or is currently in a loan relationship. We find that legal status is an explanatory variable to the endogenous factor, loan status. We also found in our causality tests that legal status granger causes loan status. This is very significant as it illustrates the main point of this paper. That is that the legal status of a nation plays an instrumental role in it approaching the Fund in the first place.

In equation 3 we try to determine the relationship between legal status and GDP growth rate. We find that this relationship is significant. Though we did not find that legal status granger causes GDP growth rates, there does exist a significant relationship between the two variables.

We also, in equation 4, attempted to gauge the relationship between loan status and legal status when considering control variables. We found that in the presence of our control variables, legal status was not significant in determining loan status.

Equation 6 proved that the outstanding balance held by the borrowing nation as a proportion of the total amount borrowed was explained only by GDP growth rates. Furthermore we conducted an analysis to determine the growth rates of countries prior to being a debtor to the Fund. Consistent in the line of literature we find that the IMF does in fact slow economic growth rates but most importantly, the loan status of a country is explained by its legal status.

As we wanted to determine, the legal status of a country which incorporates it debtor and credit protection laws in addition to its value system affects its relationship with the Fund, it also affects other economic factors within the nation as expected.

Consistent with our findings, El-Erian, (2007); Evans and Finnemore, (2001); and Momani, (2007) all agree that in order for the IMF to be effective in low-income countries they must undergo organizational reform both at the Board and staff level. Though they may experience growth as a result of an IMF loan, it becomes almost insignificant if they are negligent in their laws and do not use the loan as intended. Ultimately, we can conclude that better corporate governance laws would in fact lead to better macroeconomic policy and increase the economic conditions of these emerging markets.

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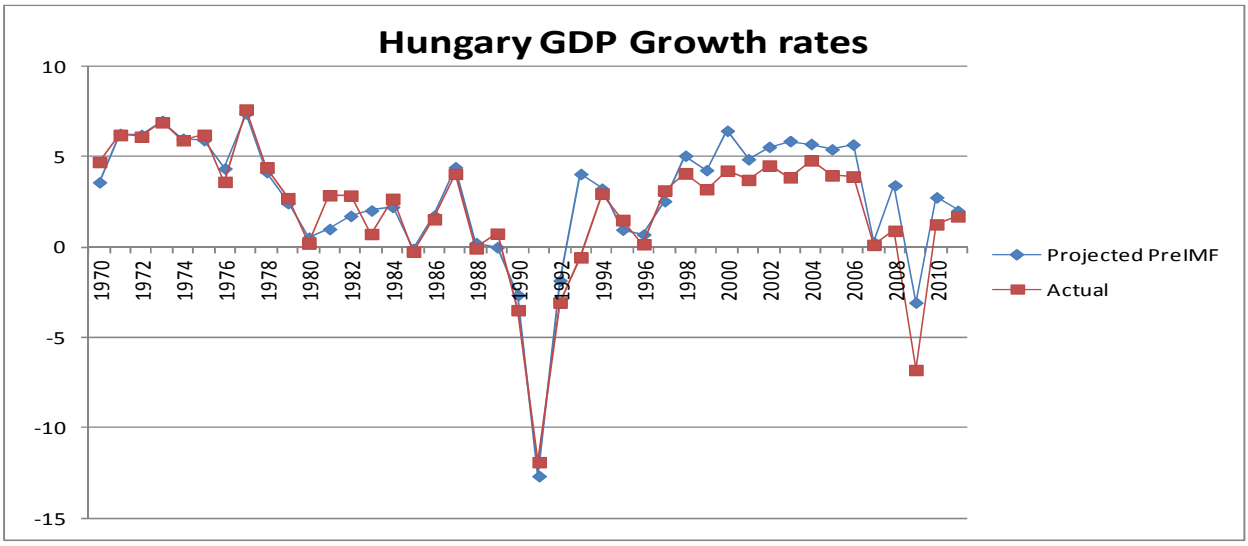
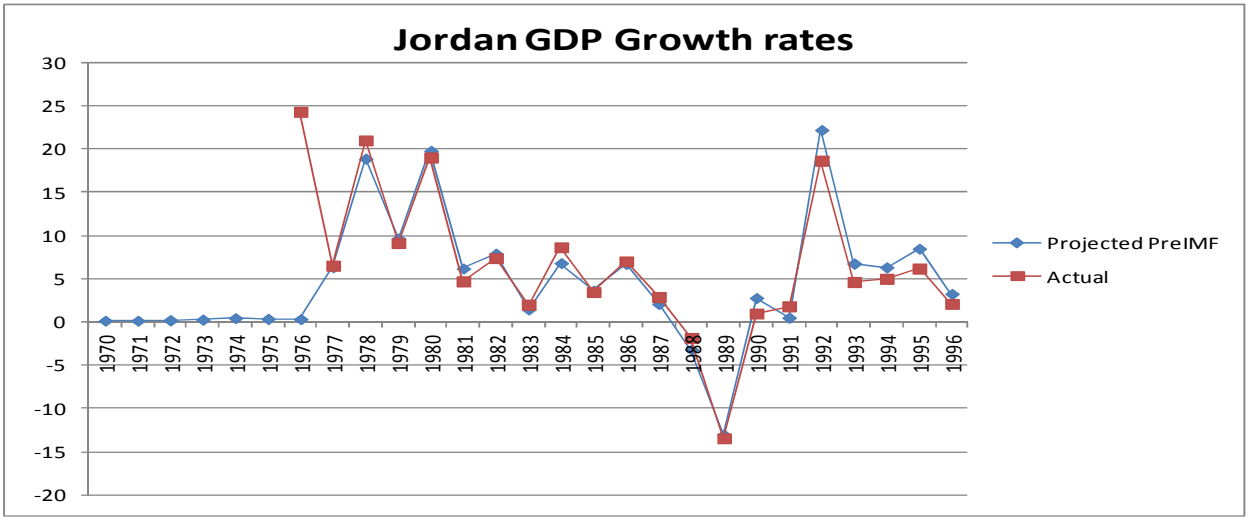
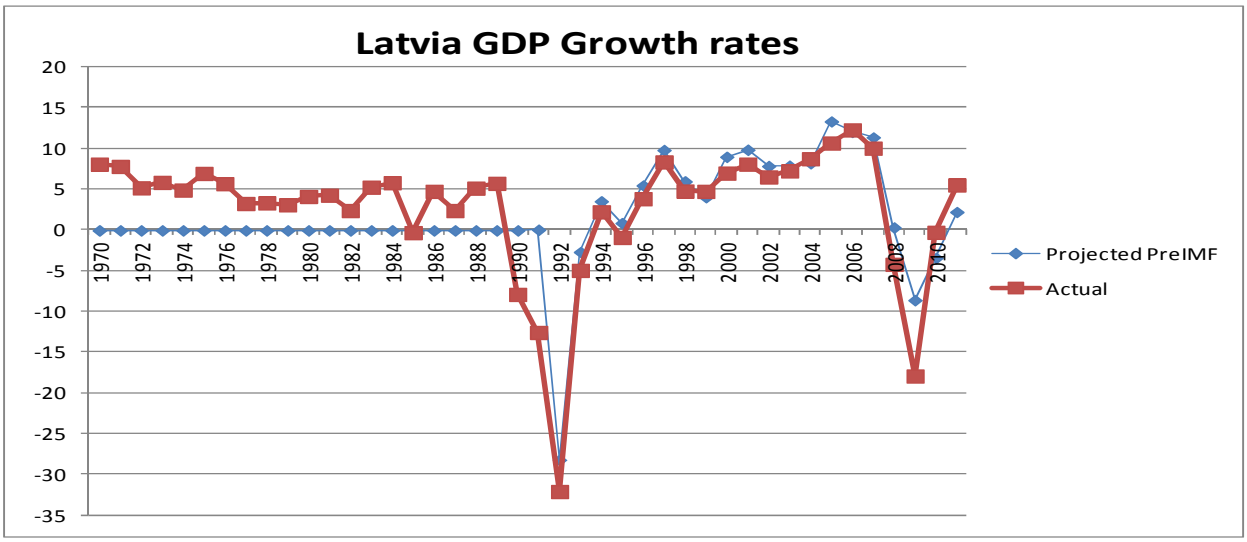
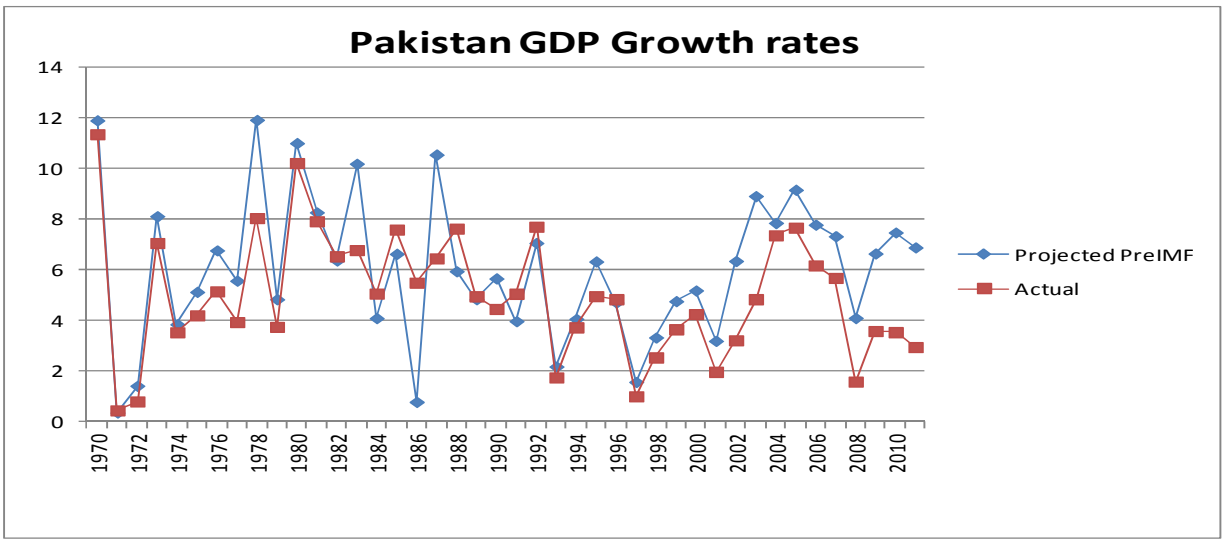
Appendices

Loan status =1





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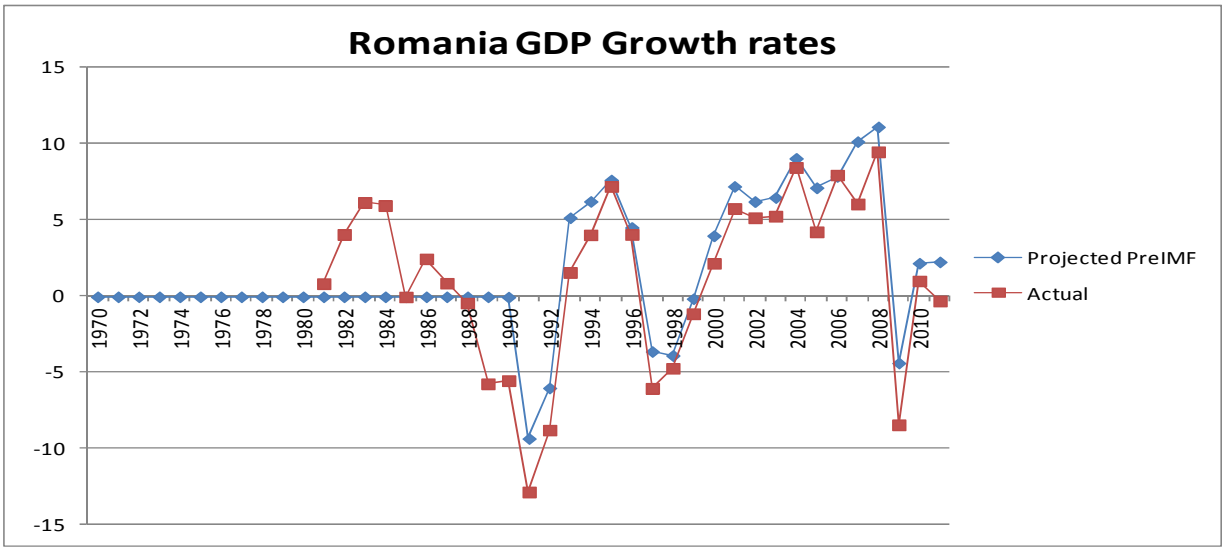
Projected PreIMF
Actual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-15
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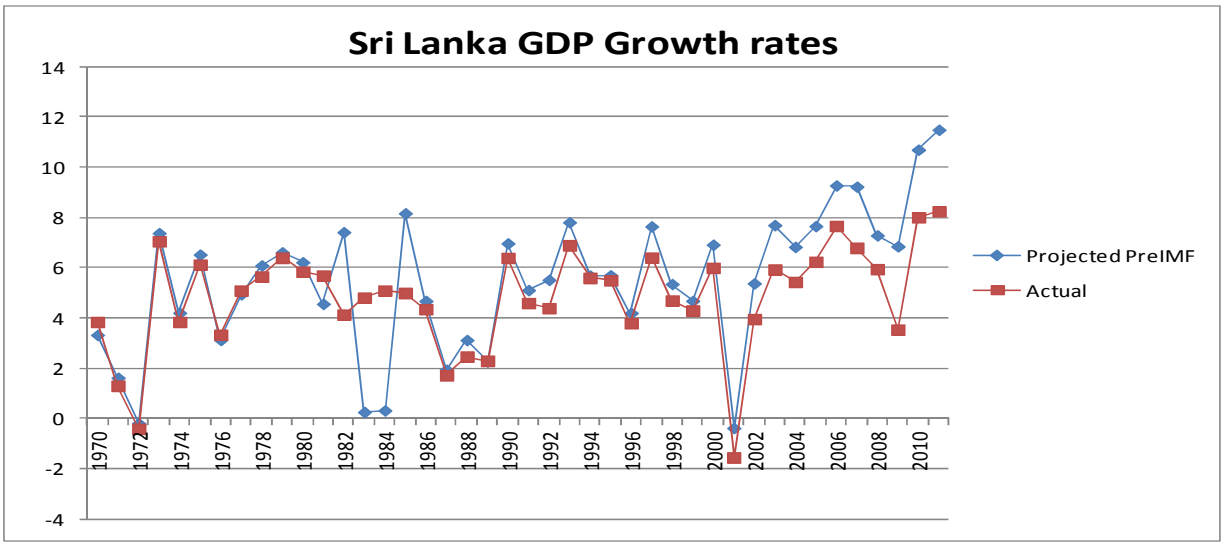
Projected PreIMF
Actual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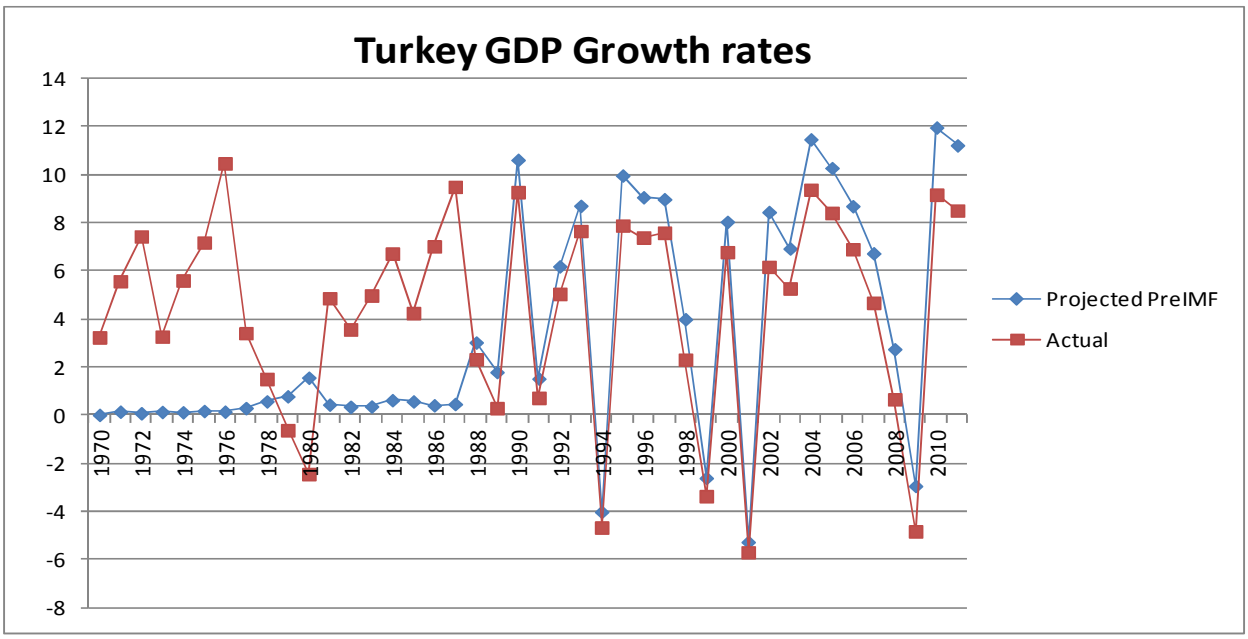
Projected PreIMF
Actual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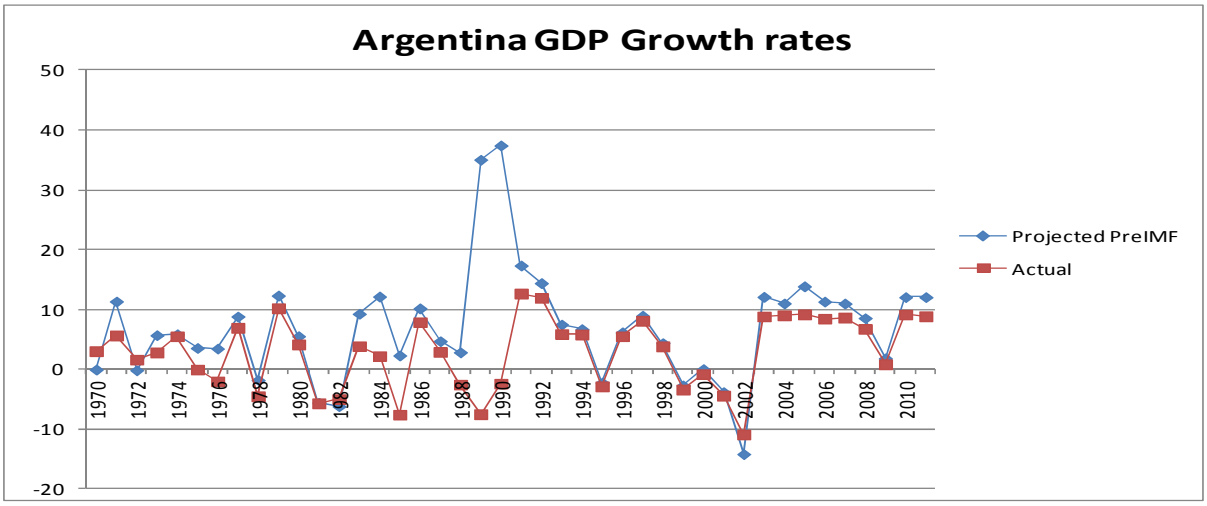
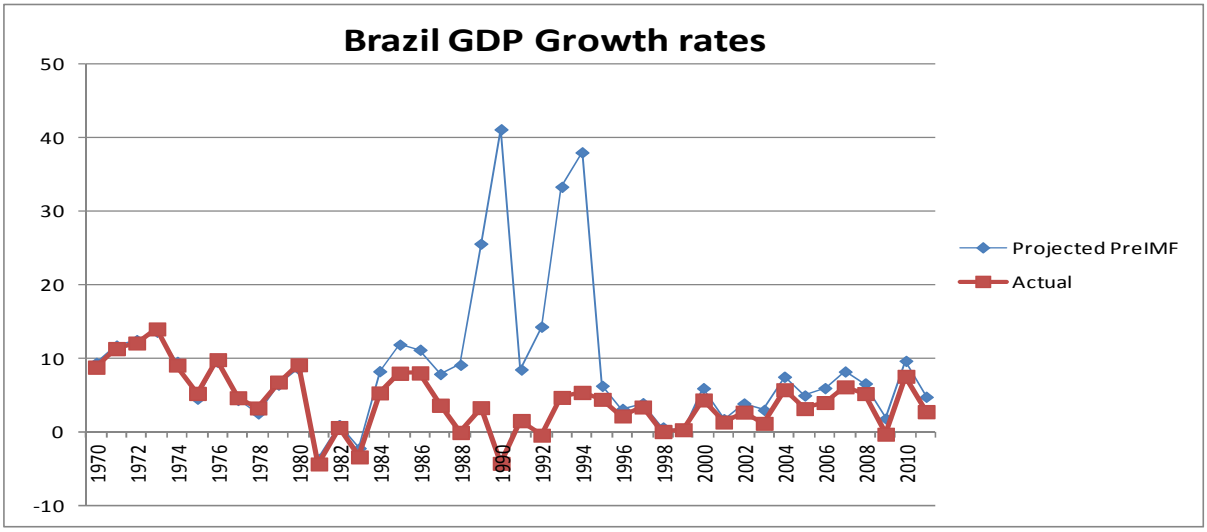
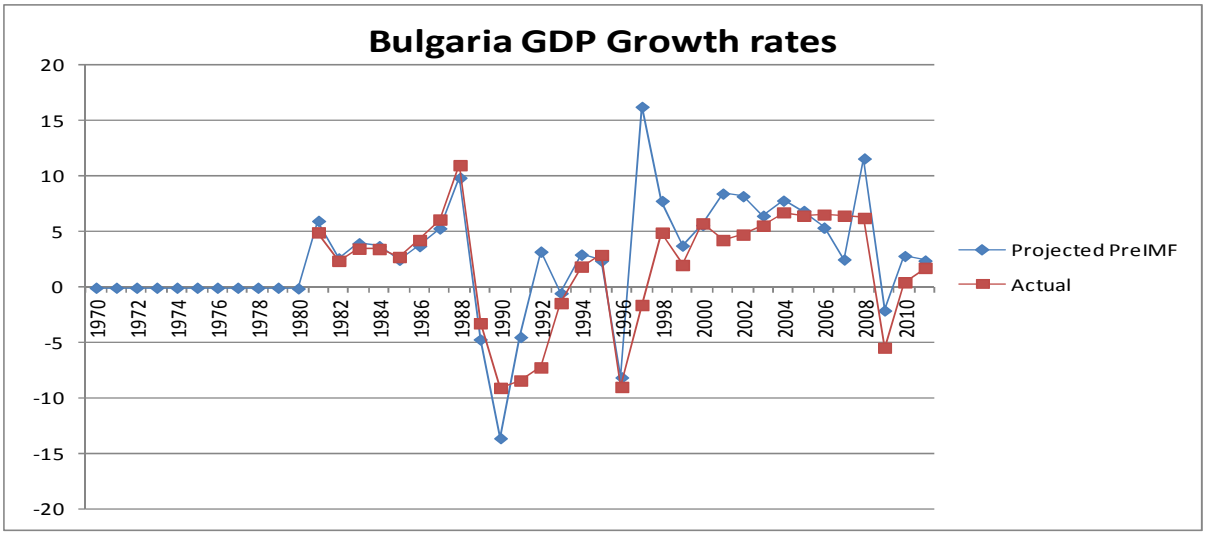
Projected PreIMF
Actual

Loan status =0








Chile GDP Growth rates
20
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2006
2008
2010
Projected PreIMF
Actual


China GDP Growth rates
25
20
15
10
5
0
-5
1970
1972
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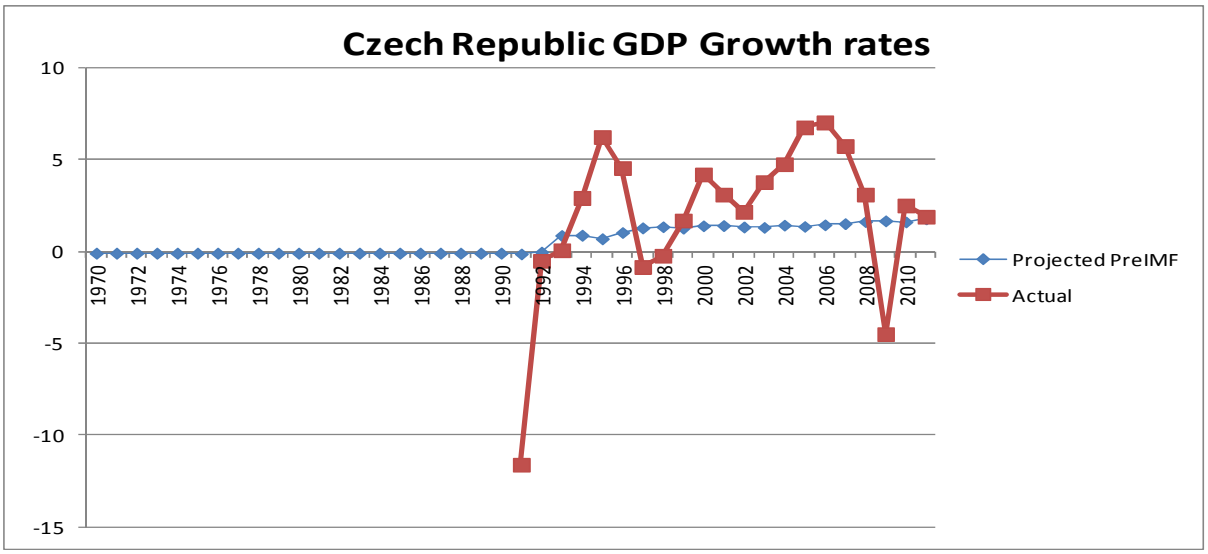
2002
2004
2006
2008
2010
Projected PreIMF
Actual


Czech Republic GDP Growth rates
10
5
0
-5
-10
-15
1970
1972
1974
1976
1978
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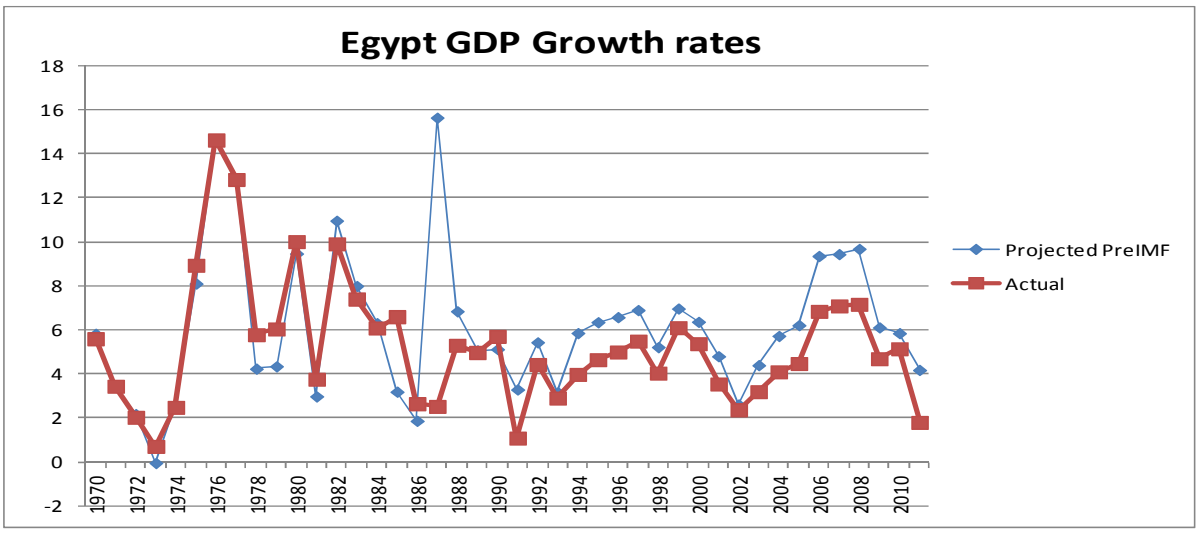
2010
Projected PreIMF
Actual


Egypt GDP Growth rates
18
16
14
12
10
8
6
4
2
0
-2
1970
1972
1974
1976
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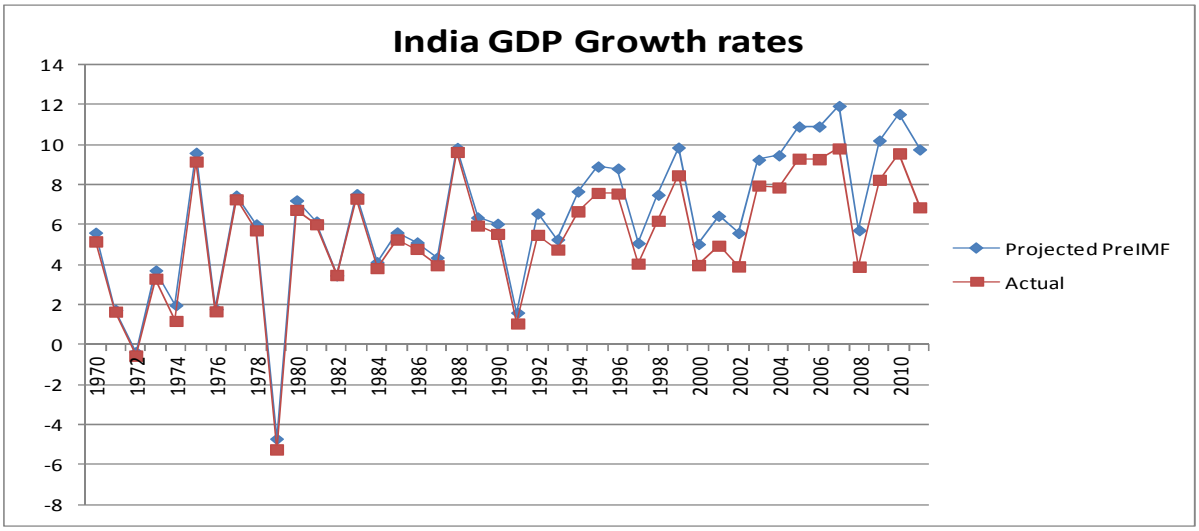
Projected PreIMF
Actual


India GDP Growth rates
14
12
10
8
6
4
2
0
-2
-4
-6
-8
1970
1972
1974
1976
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1982
1984
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2000
2002
2004
2006
2008
2010
Projected PreIMF
Actual


Indonesia GDP Growth rates
20
15
10
5
0
-5
-10
-15
-20
1970
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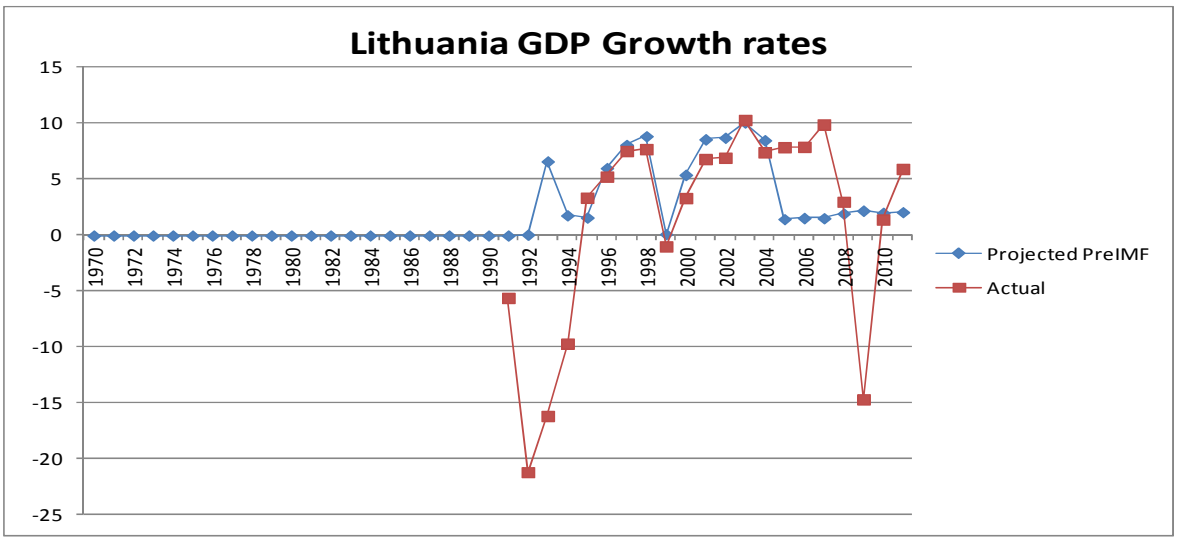
2010
Projected PreIMF
Actual


Lithuania GDP Growth rates
15
10
5
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-5
-10
-15
-20
-25
1970
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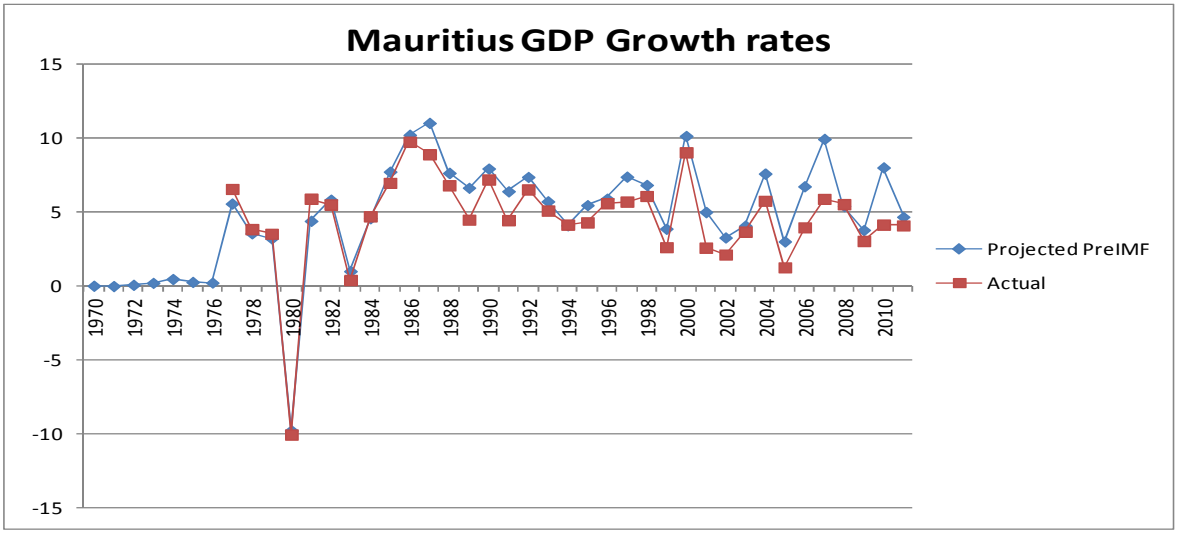
Projected PreIMF
Actual


Mauritius GDP Growth rates
15
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-15
1970
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2006
2008
2010
Projected PreIMF
Actual


Mexico GDP Growth rates
12
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-2
-4
-6
-8
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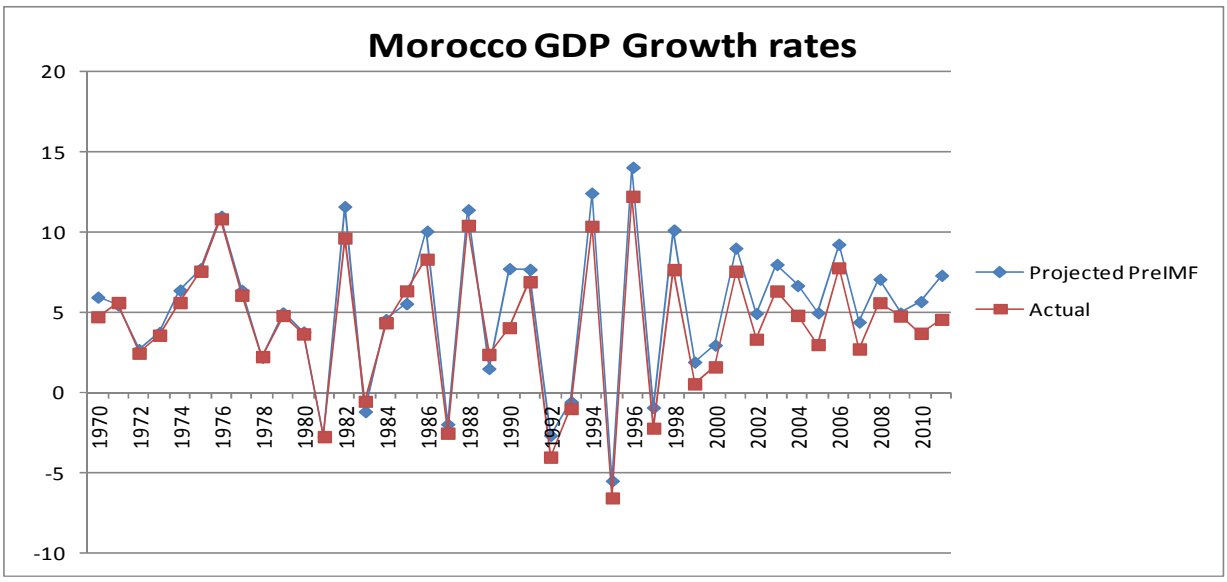
Projected PreIMF
Actual


Morocco GDP Growth rates
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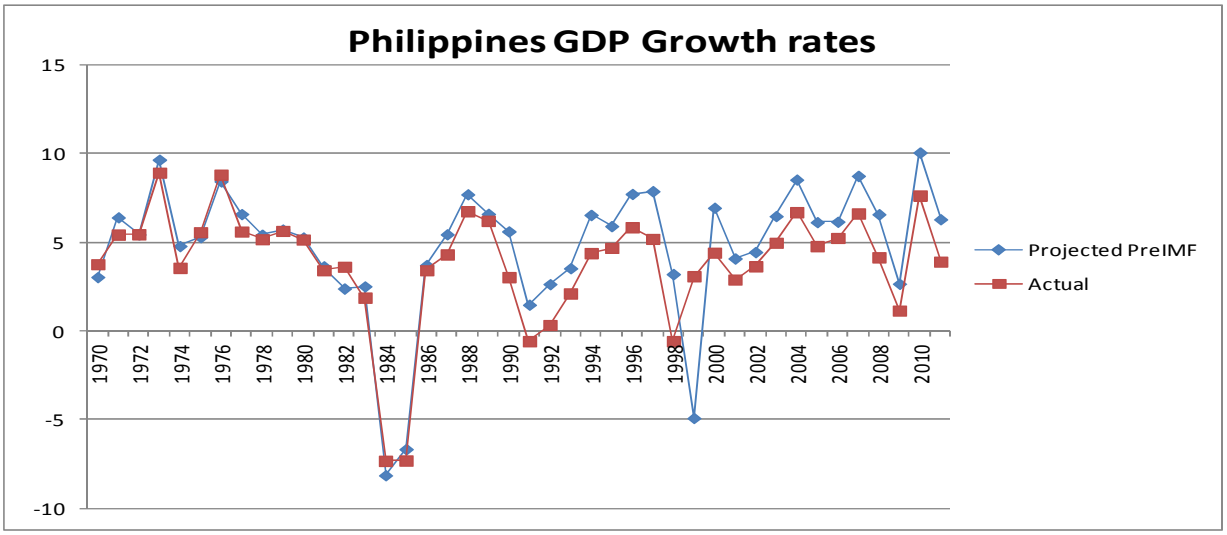
Projected PreIMF
Actual


Philippines GDP Growth rates
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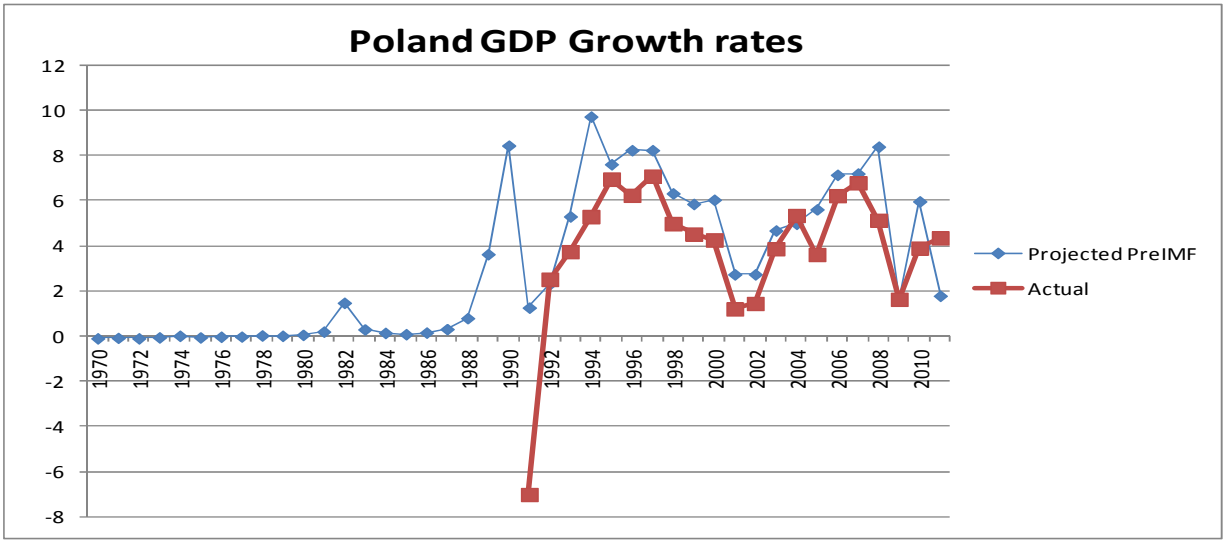
Projected PreIMF
Actual


Poland GDP Growth rates
12
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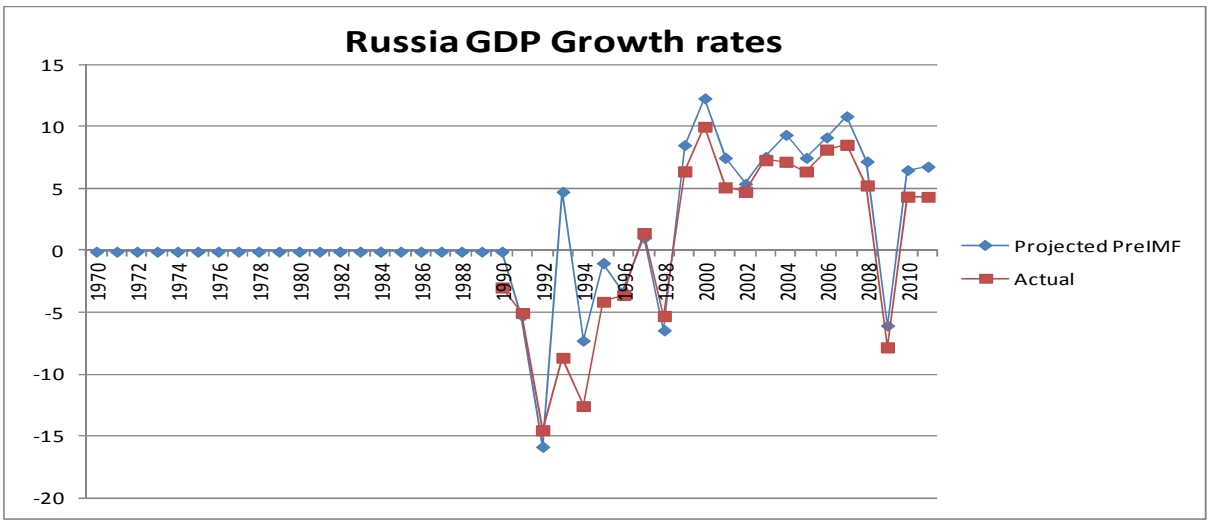
Projected PreIMF
Actual


Russia GDP Growth rates
15
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5
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-5
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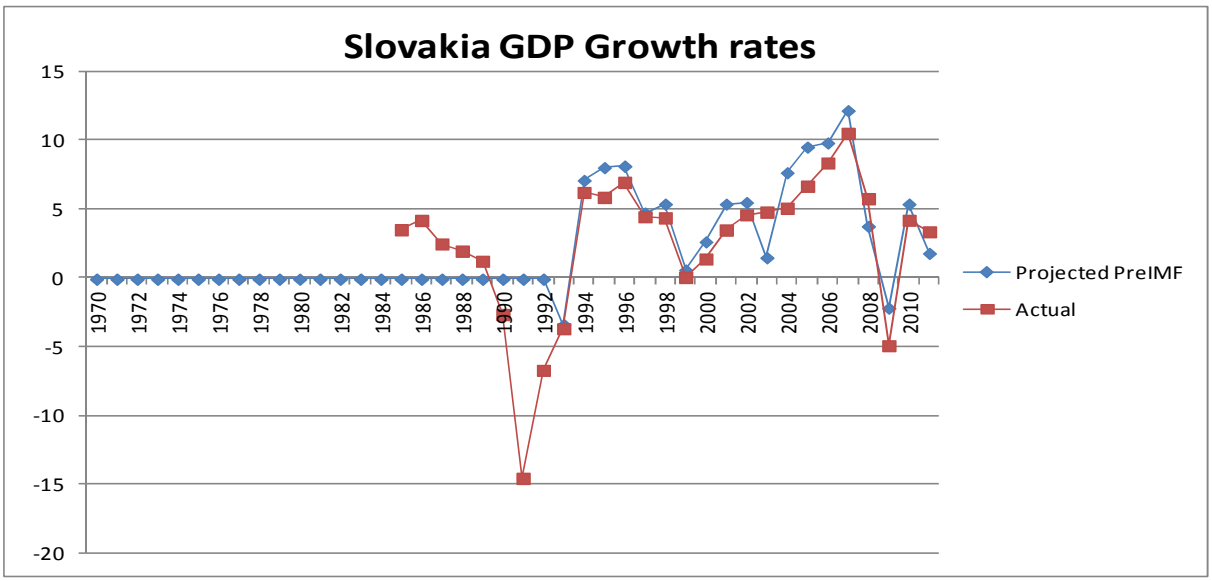
Projected PreIMF
Actual


Slovakia GDP Growth rates
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-5
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2008
2010
Projected PreIMF
Actual


Thailand GDP Growth rates
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2010
Projected PreIMF
Actual

VITA

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