The Role of Credit Market Liberalization in Emerging Market Economies during the Global Crisis

by

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STATEMENT OF AUTHORSHIP

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ABSTRACT

This thesis aims to understand the role of credit market liberalization on GDP growth performances of emerging market economies during the 2008-2009 economic crisis. Control variables are selected by an extensive review of studies performed in the previous literature notably on early warning indicators. To measure the impact of the global crisis, average GDP growth rates of 2008-2009 are used as the dependent variable. OLS regressions are performed with 46 control variables for the focus group of 51 emerging countries. Credit Market Liberalization, Labor Market Liberalization and Business Liberalization indices from the Economic Freedom of the World are added in each regression with selected default control indicators of average growth rates in 2002-2006, the natural logarithm of population in 2006 and the (log-) level of income per capita in 2006. First, Credit Market Liberalization is found as a statistically significant (negatively correlated) leading indicator of the 2008-2009 crisis for emerging market economies. Some control variables are also found as effective. By including the variable of "Change in Country Credit Ratings between 2008 and 2009", the robustness check is performed, hence the addition of the riskiness measure does not change the general result except a slight decrease in the negative impact of credit market liberalization. Second, its overall negative impact on emerging market economies is found less than the advanced economies during the crisis. Third, among the emerging market economies those of which implied more credit market liberalization during 2001 and 2006 have more GDP losses compared to the ones with less credit market liberalization.

Keywords: Financial Crisis, Market Freedom, Emerging Market Economies, Financial Liberalization, Credit Market Liberalization, Institutions

ÖZET

Bu çalışma, kredi piyasalarında serbestleşmeye yönelik düzenlemelerin 2008-2009 ekonomik krizi süresince yükselen piyasa ekonomilerinin GSYİH değerlerinde gözlemlenen büyüme üzerine etkisini incelemektedir. Kontrol değişkenler, erken uyarı göstergeleri üzerine yürütülen önceki çalışmaların geniş kapsamda gözden geçirilmeleri yoluyla seçilmiştir. Küresel krizin yol açtığı etkileri ölçümlemek için 2008-2009 yılları arasındaki ortalama GSYİH değerleri bağımlı değişken olarak kullanılmaktadır. Bu çalışmanın odak noktası 51 ülke için 46 kontrol değişkenle en küçük kareler yöntemi kullanılarak ilgili regresyonlar gerçekleştirilmiştir. Kredi Piyasası, İşgücü Piyasası ve İş Piyasası Düzenlemeleri'ne dair "Economic Freedom of the World" veritabanından alınan endekslerle 2002-2006 ortalama büyüme oranları, 2006 yılı ülke nüfusları ve aynı yıl kişi başına düşen gelirlerin logaritmik değerleri tüm regresyonlarda yer alan göstergelerdir. Birinci bulgu, Kredi Piyasası Serbestleşmeleri'nin bu ülkelerin 2008-2009 krizindeki büyümelerine etkisinin negatif olmasıdır. Bazı kontrol değişkenler de büyüme performanslarına etki eder bulunmuştur. "2008-2009 arasında Ülke Bazında Kredi Derecelendirme Oranlarındaki Değişim"in regresyonlara eklenmesi önceki bulgularda çok fazla bir değişime yol açmamış, böylece dayanıklılık kontrolü sağlanmıştır. İkinci olarak, kredi piyasalarında serbestleşmenin yükselen piyasa ekonomilerine olan negatif etkisinin gelişmiş ülkelere nazaran daha az olduğu bulgulanmıştır. Üçüncü olarak ise, kriz öncesi dönemde daha fazla serbestleşme politikası uygulayan ekonomilerin kriz süresince daha fazla GSYİH kaybına uğradıkları sonucuna varılmıştır.

Anahtar Sözcükler: Mali Kriz, Piyasa Özgürlüğü, Yükselen Piyasa Ekonomileri, Finansal Serbestleşme, Kredi Piyasası Serbestleşme Hareketleri, Kurumlar

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To my loving family…

CHAPTER I

INTRODUCTION

1.1. Aim of the Study

The rapid integration of emerging market economies into the world markets was an important component of globalization since the early 1980s. In recent decades, emerging market economies have opened their economies significantly, improved their connectedness to world network and many of them have removed restrictions on cross-border financial transactions.

Before 1980s, state intervention was an important factor in the financial sector for both developing and developed countries such that banks were owned or controlled by the government, the interest rates were subject to some forms of regulation, entry restrictions and barriers were implemented to foreign capital flows and the allocation of credit was also constrained and regulated (Abiad et al. 2008). However, as the inability of the interventionist policies ended with inflation, shocks in relative prices and sharp cyclical fluctuations during the 1970s, many countries moved towards more reliance on market forces and competition (Pera, 1988). In the aftermath of the 1980s international debt crisis, most emerging market economies became more integrated with the world economy in total with the liberalization and deregulation of their financial sector for the purposes of receiving capital inflows from advanced economies to finance investment and growth, to insure against aggregate shocks and reduce consumption volatility and to drive the financial market development and attain a more efficient domestic capital allocation and risk sharing which finally has affected their long run growth patterns and resilience towards a global shock.

In the literature, there is a long debate on the effects of financial liberalization. Even though the liberalization process in emerging market economies after 2000s leads to financial deepening and contributes to higher long-run growth, it also leads to a greater incidence of financial crises and induces excessive risk-taking, increases macroeconomic volatility as it refers to the deregulation of domestic financial markets and the liberalization of the capital account.

Giannone et al. (2010)'s study of "Market Freedom and the Global Recession" investigates whether the liberalization efforts during the pre-crisis period have an impact on the GDP growth during the crisis by considering the explanatory power of indexes of country risk in cross section regressions for 102 countries all over the world where the dependent variable is average output growth in 2008 and 2009. They relate market liberalization to the severity of the global financial crisis. They realized controls for the effects of the variables as income per capita, financial market depth, banking competition, liquidity, and financial macroeconomic imbalances which they find that the set of policies that favor credit market liberalization correlate negatively with countries' resilience to the current financial crisis.

This thesis aims to investigate the impact of liberalization, notably the credit market liberalization, over the GDP growth performances of emerging market economies during the 2008-2009 crisis and compares the differential impact of credit market liberalization on emerging market economies with advanced economies. Similarly, it also asks whether the emerging market countries which have implemented more liberalization policies are affected differently from the global crisis compared to the countries those realized less liberalization between the years of 2001 and 2006.[1] According to the results, this thesis argues that credit market liberalization has a negative impact on GDP growth performances of emerging market economies where the negative impact of credit market liberalization is lower compared to advanced economies. Second, the ones which have experienced more liberalization among the emerging market economies during the pre-crisis period are affected worse than the ones with less liberalization during this period.

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[1] Emerging countries have local and regional crises starting with the beginning of 1990s until the early 2000s, therefore I prefer to analyze the period between 2001 and 2006 to exclude the impacts of these crises.

This study is performed in the light of the studies of Giannone et al. (2010) and Rose and Spiegel (2009a, 2009b) and I examine the impact of credit market liberalization by using 46 control variables for my focus group of 51 emerging market economies[2] which are listed in Table 10 in the Appendix section. I compare my findings for these emerging market economies with the same controls for 102 countries[3] all over the world for the sake of comparison.

It is difficult to identify a single mechanism of amplification of the crisis. I address this problem by conducting a broad review of the literature, and attempt to categorize systematically the empirical findings into a ranking of the indicators that have been found to be statistically significant. Therefore, these regressions include 46 control variables with the indexes on regulatory quality. This analysis is not only informative on the role of regulatory quality but also leads to an assessment of the relation between several other characteristics of the economy before the crisis and relative growth performances during the recession.

1.2. The Impacts of Global Crisis on Emerging Market Economies

The recent global crisis is attributed as a failure of markets which has affected all countries around the world in an almost similar way and most countries have entered into recession since late 2008. The effect of this crisis diffuses everywhere in the world. In addition to a large group of developing and emerging countries all the industrialized countries have been

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[2] I have selected my focus group according to the emerging market definition of Hoskisson et al. (2000). An emerging market is defined as having low per capita income but with a rapid pace of economic development, and government policies favoring economic liberalization and a free market economy (see Hoskisson, Eden, Lau & Wright, 2000). Hoskisson et al. (2000) argue that emerging markets do not only include developing economies in Latin America, the Middle East, Southeast Asia and Africa, but also transition economies such as China, Central and Eastern Europe, and the former Soviet Union as they have transformed from formal planned economies to market economies (Zahra, Ireland, Gutierrez & Hitt, 2000).

[3] Because of the insufficiency of the data, different from Giannone et al. (2010)'s study Libya, Saudi Arabia, Taiwan and United Arab Emirates are excluded from this study whereas Bermuda, Cuba, India and Macao SAR, China are added instead.

affected as well, but the statistics shows that emerging market economies manage the crisis better compared to advanced economies.[4]

Michael Klein, the vice president at the World Bank Group states that "*It is likely that 2009 is the first year in the world economies when 100% of global growth comes from emerging markets*". There are many studies indicating that advanced countries attained lower rates of GDP growth during the crisis even after taking account of the usual controls (e.g. Frankel and Saravelos 2010; Rose and Spiegel 2010). Following that, I have prepared Figure 1 to indicate that emerging market economies performed better than advanced economies during the global crisis with their continuous positive growth rates in average.

Figure 1: Yearly GDP Growth rates by Different Country Groups
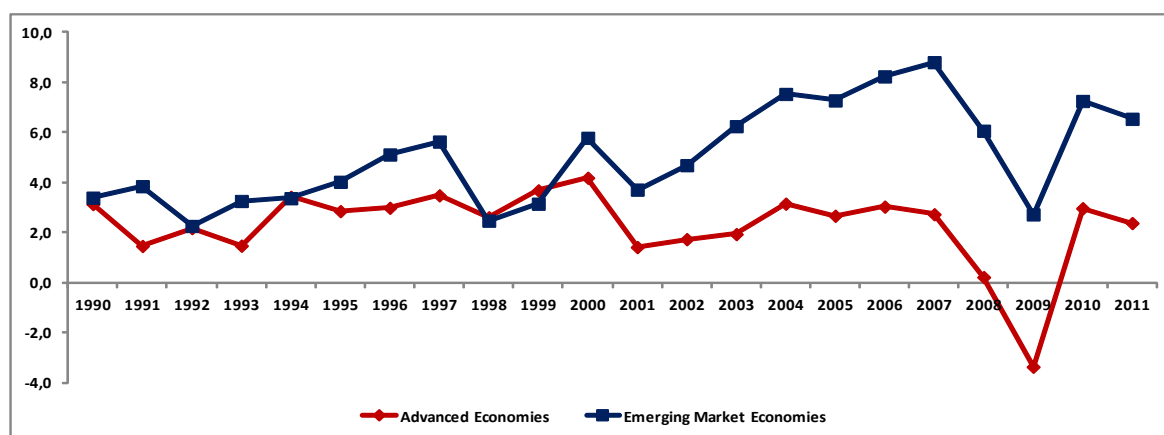
Source: International Financial Statistics, IMF

This figure also states that even though there is a wide recent literature regarding on the decoupling patterns of emerging economies during the 2008-2009 recession, the overall pattern of the economies indicate that the decoupling pattern of emerging market economies does not mean that the recession has no impact on emerging market economies.

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[4] The IMF Paper of "How Did Emerging Markets Cope in the Crisis?" (2010) expresses the major reasons for the success of emerging markets as: (1) The initial impact of the crisis was less pronounced in emerging markets that had better pre-crisis external vulnerability indicators and reserve holdings and these assets protected emerging economies from the sudden increase in global risk aversion. (2) Emerging market economies entered the crisis with more policy space and less binding financing constraints; hence they were able to react more aggressively with fiscal and monetary policy. (3) Recovery from the crisis was faster in emerging markets which is due to the fact that they had bigger fiscal stimulus, stronger pre-crisis macroeconomic indicators and faster growing trading partners.

With regards to this suggestion, Didier et. al. (2011) claim that as those countries constitute a significant part of the global production system, it is hard to decouple from the world economy for them such that they use foreign funds to finance investments and also hold assets abroad. Hence, a collapse in global demand is also transmitted to these countries as well. However, recent studies argue that after they face a recession period as in the advanced economies, the GDP growth rates of emerging market economies have started to increase differently (more than) compared to advanced economies and they entered into recovery process sooner. Additionally, Nanto (2009) asserts that emerging market economies, particularly the ones located in Asia have successfully developed their own economies and financial improvements which can be easily understood by the fact that a slowdown in the United States or Europe did not have any dramatic impacts over them as it did almost a decade ago. To summarize, even though emerging market economies experience lower growth rates that they have managed in their recent past, their GDP growth rates are still higher than those achieved by the advanced economies (*The Economist,* 2008a) and their recovery process is quite shorter than advanced economies which can be called as decoupling patterns of emerging economies after the global crisis.

Figure 2 is constituted by taking the GDP rates of emerging market economies from the World Bank Indicators and it shows average GDP growth rate of each emerging market economy between 2002 and 2006.

Figure 2: Average GDP Growth Rates of Emerging Market Economies between 2002 and 2006

Source: World Development Indicators, World Bank Data
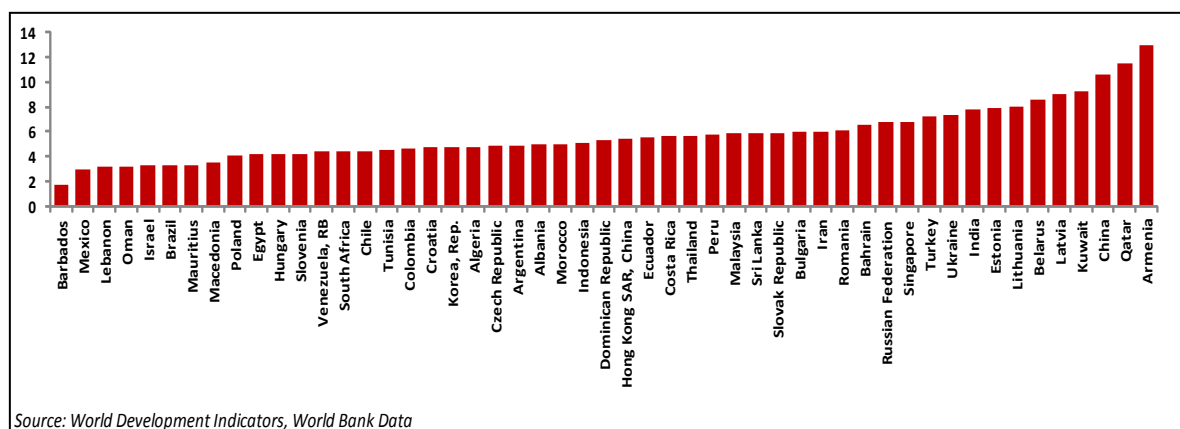
This figure indicates that all of these 51 economies had positive growth during the pre-crisis period. During this period, all emerging market economies, notably Armenia, Qatar, China and Kuwait had robust growth rates with average GDP growth rates of 12.9%, 11.5%, 10.6% and 9.3%, respectively. According to this figure, major Eastern European countries such that Estonia, Lithuania, Latvia and Belarus had performed well with average GDP growth rates higher than 7.5% during the pre-crisis period of 2002-2006. Also, Turkey, Ukraine and Russia had robust growth rates with 7.2%, 7.3% and 6.7%, respectively during this period. Among this sample, emerging market economies with the lowest growth rates were Barbados, Mexico and Lebanon with GDP growth rates of 1.8%, 2.9% and 3.1%, respectively.

In order to have an insight of the post-crisis growth patterns of emerging market economies, Figure 3 shows the average GDP growth rates of each emerging market economy for years 2008 and 2009. This figure is constituted by using the GDP rates obtained from the World Bank Indicators.

Figure 3: Average GDP Growth Rates of Emerging Market Economies between 2008 and 2009

Source: World Development Indicators, World Bank Data
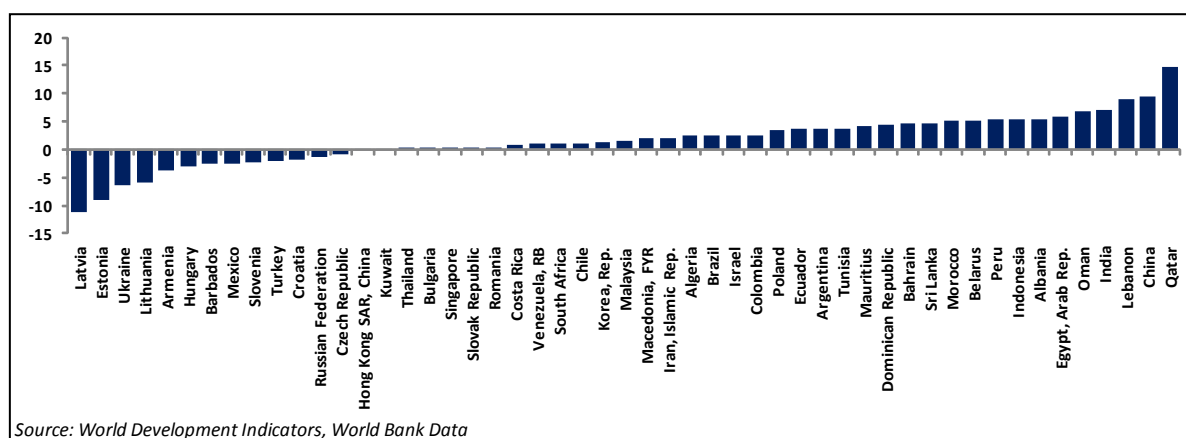
According to Figure 3, 15 countries had negative growth rates (Latvia, Estonia and Ukraine are the worst ones with average GDP growth rates of -11.1%, -9.0% and -6.3%, respectively) whereas 36 countries maintained positive growth rates (Qatar, China, and Lebanon are the ones with the highest GDP growth rates of 14.9%, 9.4% and 8.9%,

respectively) during the crisis. This figure indicates the diverse pattern of growth across emerging market economies during the crisis rather than their common pre-crisis growth patterns. Even the general tendency of these economies is still towards positive growth, there is a general contraction on their GDP growth rates and some of them, notably Eastern European economies continue to grow with negative rates.

As seen from Figure 2, emerging market economies had better pre-crisis performances. They had external vulnerability indicators with more policy spaces and less binding financing constraints, therefore the initial impact of the crisis was less for them compared to advanced economies. They protected themselves from the rapid rise in global risk aversion by their reserve holdings and they could implement more aggressive fiscal and monetary policies after the decrease in major factors of financial globalization such that cross-border capital flows (Kawai and Prasad, 2011). On the other hand, the Eastern European economies are the ones most affected from the global crisis which can be seen from above figures also. Even though Estonia, Latvia and Lithuania were among emerging market economies with the highest GDP growth rates before the crisis, they became the ones with the worst macroeconomic indicators after the crisis hit.

There are several impacts of global crisis on the growth performances of emerging market economies. However, the policy responses of emerging markets have differed from one economy to another. Some of them implemented only foreign exchange liquidity measures whereas others implied both foreign exchange and domestic liquidity measures in order to cope with external financing needs and some of them do not implement any measures overall (Yehoue, 2009).

First, capital and investment flew out from emerging market economies which exposed them to experience higher budget deficits and high sovereign debt. Many emerging market economies could not afford to issue any guarantees on deposits and other liabilities to keep the investors inside the country which made them suffer from capital outflows (Claessens, 2009). Since they ran large current account deficits and therefore dependent on foreign capital and loans to continue their operations, Central and Eastern European emerging market economies, notably the debt-financed economies among them are the ones most

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severely impacted from the global crisis (Kawai and Prasad, 2011). Nanto (2009) asserts that Hungary, Ukraine, Bulgaria, Kazakhstan, Kyrgyzstan, Latvia, Estonia and Lithuania are the ones with the highest total amount of debt in the economy and with the size of current account deficits as well as dependence on foreign investment and the level of indebtedness in the domestic banking sector. On the other hand, major Latin American and Asian economies have been more resilient towards the global financial crisis since they reduced their foreign currency borrowings (Kawai and Prasad, 2011).

Second, there have been credit crunches which have negative impacts on growth performances of emerging market economies such that the Baltic countries of Latvia, Estonia and Lithuania. Before the emergence of the crisis, these countries had an annual economic growth of nearly 9% mostly sustained by the foreign credit access which at the end made them more vulnerable to the global crisis notably when the credit lines dried up (Nanto, 2009).

Third, stock markets of emerging market economies have been crashed. Russia is one of the emerging market economies seriously affected from the global economic crisis with a negative growth rate between 2008 and 2009 of -1.3% whose stock market has fallen so rapidly. Russia also allowed its currency to depreciate significantly in order to absorb the shock (Wellington Management, 2009).

Fourth, many emerging market economies also suffered from currency depreciations such that rapid-growth Asian economies of India, South Korea and Indonesia. These countries also have experienced withdrawals of foreign capital as well as fall in their stock markets. On the other hand, since Asian economies took lessons from the 1997 Asian Financial Crisis that they faced with, they were better prepared to respond the global crisis and had some precautions towards a rapid shock such that implemented a policy of foreign reserve accumulation to protect themselves in case of a sudden stop of capital flows. However, as many Asian economies are dependent on exports, particularly the Chinese economy, they are hurt by the decrease in total global demand. Besides, their financial systems are largely bank dominated where public sector banks play dominant role in many Asian emerging

market economies such that China and India. These banks provide protection in terms of a financial crisis, but they are not effective working overall (Kawai and Prasad, 2011).

Fifth, many emerging market economies applied to the International Monetary Fund as a lender of last resort in the aftermath of the global crisis. Notably, most of the Central and Eastern European countries such that Ukraine, Hungary and Kyrgyzstan have applied to IMF in order to finance their balance of payments.

Furthermore, among the Latin American countries, Mexico experienced the hardest hit in the region. Major reasons behind of this decline are heavy dependence to the US economy[5], fall in foreign investment, low oil prices and decline in oil output which is the largest source of national income (Nanto, 2009). Overall, Mexico, Argentina and Brazil have experienced acute stock market declines and declining currency values. However, being financially isolated from global markets since 2001 crisis, Argentina has not been affected from the global crisis unlike previous crises. Mexico and Brazil have also faced with the problems occurred from decreasing oil prices.

On the other hand, Turkey was hit worse in many ways despite the resilience of its domestic banks and interest rate declines by its central bank (Rodrik, 2009). According to the data obtained from Turkish Statistical Institute, the unemployment rate increased to the highest ratio with 16.1% in February 2009 and GDP growth was highly severe with a -2.08 average for years 2008 and 2009. Even Turkey has performed a good macroeconomic management as well as an improvement in its banking environment where regulations and supervisions are much tighter after the 2001 crisis (Rodrik, 2009), it has been also affected by the contagion of the global crisis hence its policy implication of complete financial openness made the country more vulnerable in such a case of sudden cut in capital flows.

After opening its capital account in 1989, the first crisis appeared in 1994 due to sudden capital outflow resulting with keeping domestic interest rates in lower levels. Turkey was

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[5] The United States constitutes half of Mexico's imports, 80% of its exports, most of foreign investment (Global Outlook. *Mexico*. March 17, 2009 and International Monetary Fund, *Global Markets Monitor*, June 16, 2009.)

also affected from the contagious effects of the Asian and Russian crises occurred in 1998 and 1999, respectively. 2001 crisis has started with a political crisis and had an impact on exchange-rate stabilization program which led to withdrawal of funds. The last one is 2008 crisis occurred because of the US sub-prime mortgage crisis. Turkish economy did not enter an immediate crisis situation as well as no balance of payments crisis required the IMF assistance as in the past. It had a robust banking and financial sector particularly after the reforms in the aftermath of the 2001 crisis, hence Turkish government implemented some precautionary measures during the crisis with a confidence to the Turkish economy. However, having an excessive dependence on external financial resources with low domestic savings and structural weaknesses Turkey also experienced the hit of the crisis. The Turkish experience has shown similar patterns with the post-communist European Union member states of Eastern Europe with an externally driven economic growth through foreign capital inflows and a powerful external anchor of the membership of the European Union (Onis, 2010). Due to the demand shock from the European Union, there was a decline in capital inflows as well as a loss in export revenues for all of these countries.

To summarize, excluding the Eastern European economies, emerging market economies were more resilient to the global crisis of 2008 mostly because of the fact that they have lessons from the previous crises[6] that they faced with and they had some precautions towards a rapid shock. Since the Asian financial crisis, many Asian emerging market economies implemented a policy of foreign reserve accumulation to protect themselves in case of a sudden stop of capital flows. Moreover, since major Latin American and Asian economies reduced their foreign currency borrowings they have been more resilient towards the global financial crisis whereas the debt-financed and foreign capital-dependent economies among many Eastern European countries were highly vulnerable to the global crisis (Kawai and Prasad, 2011).

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[6] Past capital account crisis cases are Mexico (1994), Indonesia (1997), Korea (1997), Malaysia (1997), Philippines (1997), Thailand (1997), Brazil (1998), Colombia (1998), Ecuador (1998), Russia (1998), Turkey (2000) and Argentina (2001).

1.3. Background of Credit Market Liberalization

Until the 1980s, the financial sector was under the state control both in developed and developing countries (Abiad et al, 2008). After the Washington Consensus in 1989, a number of developing countries have started to implement an extensive set of credit, labor, capital and product market liberalization policies with the early 1990s. The key elements of this new development model are individualism, market liberalism, outward-orientation and state contraction where the role of minimal state was limited to secure law and order, macroeconomic stability and the provision of physical infrastructure (Onis and Senses, 2005).

The movement of Credit Market Liberalization were initiated in the United States and followed by the United Kingdom and other developed economies in the early 1980s, started to be implemented in many developing countries in 1990s (Pera, 1988; Stankov, 2012) and most of them concentrated on the early 1990s. The evaluation of the improvements in credit market liberalization can be seen from the measures of Credit Regulation Quality. Credit Regulation Quality (Credit Liberalization) is measured by Fraser Institute in four dimensions such that ownership of banks (percentage of deposits held in privately owned banks), competition (the extent to which domestic banks face competition from foreign banks), extension of credit (percentage of credit extended to private sector) and presence of interest rate controls. These four dimensions constitute an aggregate index which takes values between 0 and 10 for each economy in a year and it is presented in Economic Freedom of the World Database. A higher index value for a country means higher credit liberalization. According to this aggregate index, credit market liberalization advanced substantially through the country sample from 1970 to 2005 which can be attained from Figure 4. I have formed this figure through the data obtained from the Economic Freedom of the World Dataset in 2006. I have calculated average credit market liberalization indices for all economies in the world and also for different country groups of advanced economies and emerging market economies between 1970 and 2005 where the figure shows average rates for each five year.

Figure 4: Credit Market Liberalization Index by Country Groups, 1970-2005
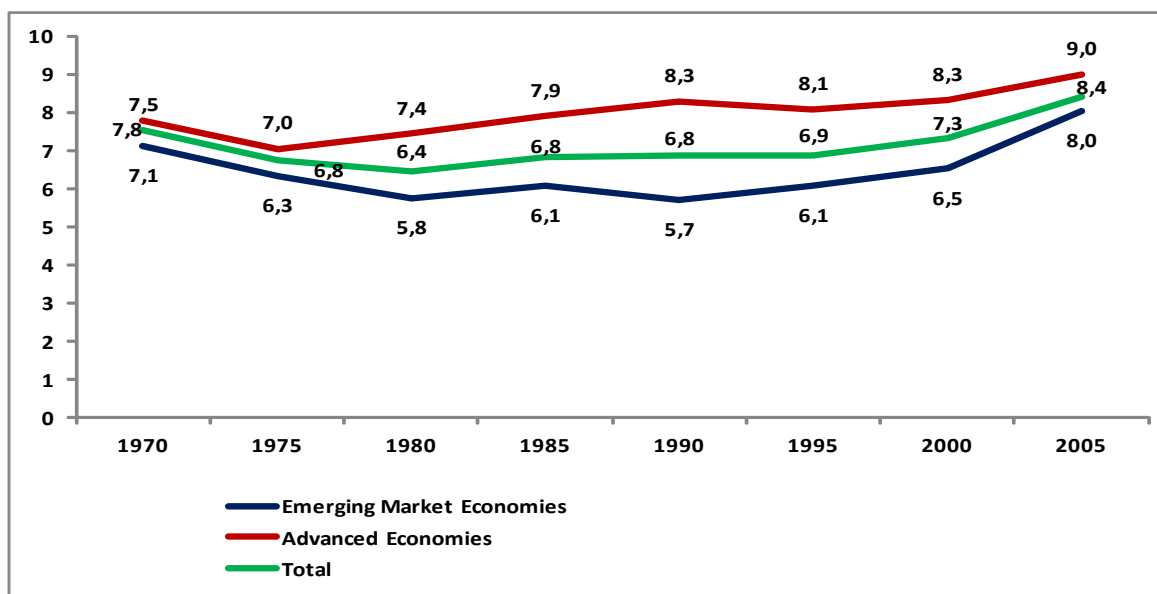
This figure indicates that both advanced and emerging market economies have experienced credit market liberalization after 1980s. Even though advanced economies started to liberalize earlier, emerging market economies performed more credit market liberalization especially after 1990s and have almost caught advanced economies in this aspect by 2005.

Supporters of financial liberalization and neoliberal economic policies are in the view of that financial liberalization generates economic growth by allowing capital to flow from rich to poor countries. However, Tornell and Westermann (2005) suggest that financial liberalization can be accompanied by financial fragility and the occasional crisis unless it is performed in right ways. They also argue that even though a strong credit channel is a key factor of long-run growth, it leads to large growth fluctuations in the economies those undertake financial liberalization.

On the other hand, Tornell and Westermann (2005) claim that emerging market economies have institutional problems such that contract enforceability problems and systemic bailout guarantees, in other words bad markets and bad policies, respectively, which lead to excess credit risk taking and also currency mismatch problems. This problem is also stated by Onis and Senses (2005) such that emerging markets have opened up their capital accounts before

establishing a stable macroeconomic environment and necessary regulatory infrastructure over their financial systems which make their economies more vulnerable for outside shocks. Broner and Ventura (2010) also argue that financial liberalization has increased both output and consumption volatility in emerging market economies as well as causing domestic financial markets to become more unstable and more prone to crises.

In the light of these views and past developments with pre-crisis conditions of emerging market economies, even though the general view asserts that the credit market liberalization contributes growth (Levine, 2005; Beck, Hesse, Kick and von Westernhagen, 2009; Levine, 2010; Tarr, 2010; Stankov, 2012), this thesis asks whether more liberalized emerging market economies performed better during the global crisis.

1.4. The Political Economy Approach to Explain the Impacts of Global Crisis

Yilmaz (2001) states that for countries with weak institutional framework and lack of effective organizations promoting interests of large groups in society, it is difficult to prevent self-interested political elites from acting on their behalf and to exert any control over them. In such countries, political elites play significant role in generating budget deficits and lead to delays in stabilization process. Harstad and Svensson (2008) assert that in less developed countries, firms tend to rely on corruption to bend the rules whereas in richer countries, they prefer to lobby the government to change the rules. Therefore, lobbying groups are more powerful in developed economies compared to emerging market economies.

Policy decisions, mainly financial liberalization policies after 1980s are mostly shaped by political elites and powerful lobby groups who try to increase their power and economic wealth through privileged access to and discretion over government resources (Yilmaz, 2001). It is argued that in the run up to the crisis, large financial institutions were strongly lobbying against certain legal changes and prevented tightening of regulations notably for lending practices. Lobbyists, in other words special interest groups, in the United States legally influence policies either by financial contributions to political campaigns or by carrying out lobbying activities in the executive and legislative branches of the federal

government for certain legislation. For example, before the crisis hit, riskier mortgage lending strategies were adopted due to the lobbying facilities by financial institutions. Igan et al. (2009) find that between 2002 and 2006, the lenders lobbied to prevent tightening of laws and regulations related to mortgage lending. They originated mortgages with higher loan to income ratios, increased their securitization amount more than other lenders and had faster growing mortgage loan portfolios which at the end lead to deterioration in credit quality and increase in riskiness. Hence, it can be concluded that the political influence of the financial industry also contributed to the emergence of the recent mortgage crisis (Igan et al. , 2009).

Lobbying is mainly referred as moral hazard problem where lenders follow risky lending strategies for rent-seeking and expect privileged treatment of lobbying notably by government in case of being bailed out in the event of a financial crisis. Short-termism, in other words creation of a regulatory environment that allows lenders to exploit short term gains is another component of moral hazard problem. Under these conditions misallocations of resources can occur and leads to socially worst outcomes.

After 1990s, European Union economies have made contributions to policy development in terms of support for democratization and economic reform in Eastern Europe. However, as another part of the moral hazard problem Central and Eastern European countries had confidence to the prestigious members of the European Union in case of a sudden shock which made them to not give sufficient importance to form institutional infrastructure and regulations for their newly established economies. Onis (2010) states that growth of these countries was mainly driven by foreign capital inflows and it was due to a powerful external anchor in the form of the European Union membership, and their rapid pace of development did not proceed with well-designed policies in this period. Foreign investment into these economies had quickly spread after their membership to the European Union and they did not have controls over these developments which at the end made them more vulnerable to this kind of sudden shocks. On the other hand, as experienced from the past crises Asian economies had precautions as well as Latin economies with Turkey which all faced with the bad experiences of trusting the powerful economies and groups such that the United States and the International Monetary Fund in the past. However, even they did not

have any moral hazard problems of the Eastern European countries; this group of countries was mostly affected from trade channel during the crisis due to the contagious effects of the global crisis.

Hence, it can be argued that the lobbyist groups had an impact during the credit liberalization period especially after 2000s. By the impacts of these groups, necessary regulations could not be performed during this period which at the end led to weak financial infrastructure in advanced economies with a risky environment as well as bad macroeconomic results. Due to the contagion and having externally driven economies, emerging market economies have been affected as well.

1.5. Organization of the Thesis

This thesis aims to understand the impact of credit market liberalization on emerging market economies during the 2008-2009 global crisis. The following five chapters will present this analysis. A brief synopsis of each of these chapters is as follows.

The second chapter presents a review of literatures on financial liberalization, growth and institutions. It presents a discussion of these concepts without disregarding the critiques directed at these literatures. The third chapter gives detailed information with the sources and descriptive statistics on the data with regarding country sample and the methodology of this study. In the fourth chapter, several controls are performed and presentation of the results with their discussion is provided. The fifth chapter covers the robustness check for the findings of this research. The sixth chapter is the final section including policy implications and concluding remarks with some question marks for future research.

CHAPTER II

LITERATURE REVIEW

The recent literature has many studies regarding the impact of pre-crisis indicators on GDP growth rates of countries during the post-crisis period. Many researchers conduct studies to provide early warning of macroeconomic and financial risks and the actions needed to address them. Rose and Spiegel (2009a) conduct a cross-sectional study empirically for 107 countries that models the causes of 2008-2009 crisis together with its manifestations by using a Multiple Indicator Multiple Cause (MIMIC) Model which takes the severity of the financial crisis as a latent variable. They take 2008 changes in real GDP, the stock market, country credit ratings and the exchange rate as the incidences of the crisis and look for over sixty potential causes in order to find linkages between these manifestations of the crisis and its possible causes coming from 2006 and earlier. In a similar study, Rose and Spiegel (2009b) search for evidence that whether the 2008-2009 crisis spread contagiously from its epicenter United States to other countries through both financial and real channels such that international trade channels and international cross-holdings of assets. However, their findings do not give any significant and robust answers for the literature.

Claessens et al. (2010), Giannone et al. (2010), Frankel and Saravelos (2010), and Lane and Milesi-Ferretti (2010) find that countries with higher levels of real GDP per capita experienced more severe crises. Rose and Spiegel (2009a, 2009b, and 2010) and Rose (2011) also perform studies to justify the success of emerging economies during the crisis by presenting a negative association between some indicators of economic performance during the crisis and the level of GDP per capita. Claessens et al. (2010) find that only house-price appreciation, bank credit growth, and the size of the current account can be significantly linked to crisis incidence. By considering a large number of crisis causes and effects, Lane and Milesi-Ferretti (2010) and Berkmen et al. (2009) conclude that cumulative credit growth and fixed exchange rates affect crisis severity.

On the other hand, there is a wide literature on examining the relation among institutions and economic growth.[7] In addition to previous researches, the 2008-2009 global crisis opens a new wave of investigations for the relation between the economic and institutional structures of the countries before the crisis and their resilience during this crisis. The weaknesses of the national and international financial regulatory frameworks are investigated by researchers. Demirguc-Kunt and Serven (2009) state that Basel 1 leads to excessive securitization by assigning lower capital charges to securitized assets which encourage banks to move their assets into off-balance sheet vehicles. Larger financial institutions exposed themselves into greater risks because of the encouragement of the regulatory frameworks (Rose and Spiegel, 2009a). Besides, Bernanke (2009) emphasizes the requirement of strong risk-management practices also in good times. In terms of risk management, Mishkin (2008) claims that advances in information technology and in financial innovations encouraged new lending products and increase securitization of debt which lead to "democratization of credit", in other words the extension of credit to a larger number of borrowers compared to the past which eventually contribute to the huge impacts of the global financial crisis all over the world.

Neyapti and Dincer (2005), Allen and Gale (2007), De Haan and Shehzad (2010), and Dincer and Neyapti (2010) conduct studies on the impact of bank regulation on economic performance. As another contribution in this regard, Giannone et al. (2010) relate the market liberalization with the GDP growth patterns during the recent global financial crisis. They take into account several rating and regulatory indices with a lot of control variables where they use GDP growth rates of 102 countries in 2008 and 2009 as dependent variables. After their controls on the effects of many variables, they achieve the result that countries with more liberal credit regulations suffered more seriously from the global crisis. Similarly, de Carvalho Filho (2011) conducts a study to examine post-crisis growth for 51 countries indicating that inflation targeting countries performed better than other countries in terms of GDP growth and industrial production.

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[7] see Acemoglu, Johnson and Robinson (2005) to have more detailed information regarding on this topic.

In a more general view of understanding, Altug et al. (2011) investigate the relationship between the main features of business cycles and the institutional and structural characteristics of 62 economies in all over the world. This study does not specifically focus on 2008-2009 crisis and aims to give a general insight of a global crisis, hence it is complementary on previous studies in this regard (Rand and Tarp (2002); Girardin (2005); Canova (2010); Altug and Bildirici (2010)) whose findings suggest that the duration and the cyclical features of emerging market economies display significant heterogeneity implying a role for institutional factors in explaining them.

The recent studies also focus on the area of credit growth. Adrian and Shin (2008) provide a relevant discussion of credit growth where their results indicate key differences between traditional banking system and the market-based banking system. Berkmen et al. (2009) conclude that countries with greater financial leverage experienced worse crises, while Lane and Milesi-Ferretti (2010) find the current account as a significant factor to indicate the severity of crisis (Rose and Spiegel, 2009a). Giannone et al. (2010) examine the accuracy of country risk assessments, particularly for advanced economies. They take into account governance, political instability and quality of regulation to specify the country risk which they suggest that low country risk contributes to long-run growth performances of countries overall. For these purposes, the International Country Risk Guide (ICRG) indicators are used by many researchers. Knack and Keefer (1995), Hall and Jones (1999) use an index constructed from five ICRG variables that reflect the security of private property and the enforceability of contracts: "Corruption in Government," the "Rule of Law," "Expropriation Risk," "Repudiation of Contracts by Government," and "Quality of the Bureaucracy".

The impact of monetary and financial institutions is also a significant factor in terms of countries' resilience towards a domestic or global shock. Many studies are conducted in this regard. Bade and Parkin (1988), Alesina (1988, 1989), Grilli, Masciandro and Tabellini (1991), Cukierman, Miller and Neyapti (1992, 2002), Eijnger and Schaling (1993) and Neyapti (2009) examine the impact of monetary institutions on inflation. Neyapti and Dincer (2005), Allen and Gale (2007), De Haan and Shehzad (2010), and Dincer and

Neyapti (2010) conduct studies on the impact of bank regulation on economic performance. Diamond and Rajan (2009) assert that by implementing various institutional and policy changes after the previous crises, emerging market economies performed better to avoid the worst effects of the global crisis.

Caprio and Honohan (2002) assert that liberalized banking systems have a more cyclical behavior which increases the impact of shocks. Easterly, Islam and Stiglitz (2000) and Beck, Lundberg and Majnoni (2001) conclude that deeper financial systems seem to be able to protect economies against shocks. Levine (1996) suggests that the existence of foreign banks contributes to the institutional strength of the banking system of a country; but on the other hand Caprio and Honohan (2002) claim that these banks could transmit foreign shocks through the reliance to these banks. Goldberg (2009)'s study states that foreign bank entry into local banking systems is a stabilizing factor for home markets. However, after analyzing the 2008-2009 crisis, Cetorelli and Goldberg (2009) assert that both local banks and foreign-owned banks were exposed to the funding conditions in the global markets, hence when shocks are global, foreign banks have little advantage over local banks to help resilience to the shocks. Global banks play significant role in the transmission of the 2008-2009 crisis to emerging market economies. Flows between global banks and emerging markets include both cross-border lending and internal capital-market lending (Cetorelli and Goldberg, 2009).

On the other hand, there are many studies in the literature to show the relation between credit market liberalization and economic growth. Many studies state that credit market liberalization is positively correlated with financial development and regulation both play a significant role in developing financial markets. Levine (2005) asserts that credit market liberalization contributes to growth. In their studies, Bekaert, Harvey and Lundblad (2005) conclude that equity market liberalization leads to a 1% increase in annual economic growth. Beck, Hesse, Kick and von Westernhagen (2009) state that financial development has a positive impact on macroeconomic stability of a country as well as Stankov (2012) concludes that credit market liberalization affect the outcomes positively. In this regard, Levine (2010) and Tarr (2010) demonstrate that instead of liberalization policies, risk-favored regulatory mechanisms cause the crisis.

On the other hand, credit market liberalization is not sufficient to prevent the country from financial shocks. In this regard, Diaz-Alejandro (1985) investigates why financial reforms carried out in many Latin American countries during 1970s turned into widespread bankruptcies, massive government interventions or nationalizations of private institutions' and low domestic savings by 1983. Galor and Zeira (1993) also claim that capital market imperfections may influence growth negatively. Hellmann, Murdock, and Stiglitz (1997) conclude that financial restraint can be beneficial during low financial deepening. Like Giannone et al. (2010), Rose and Spiegel (2010) also find that countries with more liberal credit market liberalization experienced significantly worse crises.

The literature does not include much study over the impacts of credit market liberalization on the performances of emerging market economies. In this regard, this thesis will be a complementary for the emerging market studies.

CHAPTER III

DATA AND METHODOLOGY

3.1. Data

3.1.1. The Country Sample

This section describes the country sample analyzed in this paper. First, in addition to my focus group of emerging market economies I take all the countries that have been dramatically affected by the crisis as well as other countries those have not been affected as badly (I take them as controls). I have 102 countries in total which are listed in Table 10 with some specific observations on the sample countries. I have divided those 102 countries into three groups of 25 Advanced Economies, 51 Emerging Market Economies (which also include the Transition Economies from the Central and Eastern Europe) and 26 Other Developing Economies:

-Advanced Economies: Australia, Austria, Belgium, Canada, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Malta, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

-Emerging Market Economies: Albania, Algeria, Argentina, Armenia, Bahrain, Barbados, Belarus, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Czech Republic, Dominican Republic, Ecuador, Egypt, Estonia, Hong Kong, Hungary, India, Indonesia, Iran, Israel, Korea Republic, Kuwait, Latvia, Lebanon, Lithuania, Macedonia, Malaysia, Mauritius, Mexico, Morocco, Oman, Peru, Poland, Qatar, Romania, Russia, Singapore, Slovak Republic, Slovenia, South Africa, Sri Lanka, Thailand, Tunisia, Turkey, Ukraine and Venezuela.

-Other Developing Economies: Antigua and Barbuda, Bahamas, Bermuda, Botswana, Brunei Darussalam, Cuba, El Salvador, Equatorial Guinea, Gabon, Georgia, Guyana, Haiti, Jamaica, Kazakhstan, Kyrgyz Republic, Macao, Namibia, Panama, Papua New Guinea, Paraguay, Seychelles, St. Kitts and Nevis, Swaziland, Trinidad and Tobago, Turkmenistan and Uruguay.

3.1.2. Crisis Indicators

In this study, my aim is to investigate the relationship between the cross-sectional differences in output growth during the recession and indicators of emerging market economies' risk and governance. For this purpose, many indicators are used in order to see countries' performances in terms of credit-worthiness, risks relatedness with the governance, political instability and policy imbalances. These indicators are selected from the previous studies notably by Giannone et al. (2010) and Rose and Spiegel (2009a).

The data regarding to GDP, GDP per capita, population and various control indicators used in the following sections are taken from World Bank Development Indicators and Global Development Finance with the Financial Structure Databases provided by the World Bank.

In order to control for institutional differences, I include some variables from the Economic Freedom of the World Database (EFW'06) which provides an index of market freedom aimed at measuring the degree to which a nation's institutions and policies consider voluntary exchange, protection of property rights, open markets, less government interventions and minimal regulation of economic activity (Gwartney and Lawson, 2003c). The EFW data provides ratings in size of government, legal structure and security of property rights, access to sound money, exchange with foreigners and regulation of capital, credit, labor and business markets.

I take "Credit Market Liberalization", "Labor Market Liberalization" and "Business Market Liberalization" indices from the data of Frazer Institute (EFW'06) indicating a summary score on the quality of regulation in credit markets, labor markets and business sector, respectively. I use 2006 values. The index of "Credit Market Liberalization" in the EFW

dataset is measured over time in four dimensions: Interest rate controls; Foreign bank competition; Ownership of banks and Private sector credit. As liberalization means the withdrawal of the state from direct pricing, entry and exit within an industry, then assessing interest rate controls, foreign bank entry and foreign ownership in the banking sector over time gives an adequate view over the Credit Market Liberalization pattern across countries (Stankov, 2012).

EFW measures of "Freedom to Trade Internationally", "Government Size", "Security of Property Rights" and "Sound Money Access" are added into the analysis, with the "Polity Index" and a measure of "Constraints on the Executive" from the Polity IV Data Set (Rose and Spiegel, 2009a). Polity Index takes the values between -10-to-10 which combines institutionalized autocracy and democracy scores, respectively and captures how a country regime performs on dimensions of competitiveness and openness of executive recruitment, regulation and competitiveness of participation and chief executive constraints. Besides, Constraints on Executive is the extent of institutionalized constraints on the decision-making powers of chief executives.

As a measure for the quality of the regulatory regime, I take the sub-component of "Regulatory Quality", from the Worldwide Governance Indicators[8], which is defined as *"the capacity of the government to effectively formulate and implement sound policies: capturing perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development"* in Kaufmann, Kraay, and Zoido-Lobaton (2002). It is a sub-component of the Worldwide Governance Index computed by the World Bank and I use 2002 values.

Taking into account the recent macroeconomic literature for the impact of monetary institutions on economic stability, I also conduct my controls for measures of governance. To identify large declines in GDP growth rates during the global crisis, Giannone et al. (2010) focus on one (Regulatory Quality) of the sub-indicators of the Worldwide

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[8] (www.govindicators.org)

Governance Indices provided by the World Bank (see Kaufmann, Kraay, and Zoido-Lobaton (2002)) which measures different dimensions of governance as voice and accountability, political stability and absence of violence and terrorism, government effectiveness, regulatory quality, rule of law and control of corruption. In this study, I evaluate each of these dimensions separately as my control variables in terms of governance issues.

To compare emerging market economies according to their governance, economic and institutional structure, an index for Country Credit Ratings computed by the Euromoney Magazine in March 2007 and by its analogue Institutional Investor for March 2008 and March 2009 is used. This index is calculated on the basis of a bi-annual survey of rating agencies and market experts. It is a weighted average of market indicators, credit indicators and analytical indicators. The ratings created by Euromoney Magazine and Institutional Investor that rank 177 countries on a scale between 0 and 100, where 100 represents the least likelihood of default.

Furthermore, I have collected data from the website of New York University (NYU) Stern Database [9] to measure the impact of Country Risk Premiums, which is a significant indicator for global crisis literature, on GDP Growth in 2008-2009.

A detailed list of database sources for related indicators is provided in Table 13 in the Appendix section. The summary statistics and descriptive statistics of all variables for 51 emerging market economies and 102 countries those are taken into the consideration in this thesis are presented in Table 11 and Table 12, respectively in the Appendix section.

3.2. Methodology

I analyze the data in terms of whether and how these pre-crisis indicators can significantly explain the cross-sectional variation of output loss during the crisis. First, I conduct my analysis for 102 countries which is based on OLS cross-sectional regressions where the dependent variables are 2008-2009 growth rates of real GDP. GDP growth rates of 2008-

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[9] (http://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html)

2009 are selected as the measure of crisis intensity. After performing these regressions for 102 countries all over the world, I conduct the same analysis for my focus group of 51 emerging market economies for comparison purposes which are selected as a sample from my original database. For emerging market economies, my control results are presented and discussed in detail in the fourth chapter as well as with their comparisons of control results for 102 countries which are presented in Table 7 in the Appendix section. I use OLS method since it prevailed as the estimation of choice according to the literature survey.

Thus, I use OLS method to estimate equations of the form:

$$y_i = \beta x_i + \varepsilon_i,$$

where β is a reduced form coefficient linking a pre-crisis cause of the crisis (x) to GDP growth in 2008-2009 which is a crisis manifestation (y) and ε is a well-behaved disturbance.

In the Table 10 in the Appendix section, emerging market economies and advanced economies are specified with an [e] (emerging) and [a] (advanced) superscripts, respectively. I use Stata Analysis Program to perform the required regressions. To avoid endogeneity bias, all variables in the left-hand side of the regressions are dated earlier than 2008.

Each coefficient is taken from a separate cross-country OLS regression and each formula includes the (log-) level of income per capita, the average growth rate of GDP in the 2002-2006 period and the natural logarithm of population in 2006 as control variables. GDP growth between the years of 2002-2006 is also included in order to control the cross-country heterogeneity in growth rates before the crisis. Many observations indicate that smaller countries have managed better during the crisis, therefore I also condition on size and include the natural logarithm of the countries' populations in 2006 as in the earlier studies conducted by Rose and Spiegel (2009a), Giannone et al. (2010) and Petursson and T. Olafsson (2010) in order to capture mechanisms which may induce a positive correlation between size and output volatility. Income level which is measured by the (log-) level of

GDP per capita is also added into my regressions since the data and research show that rich nations were more vulnerable than the lower income nations during the global crisis (Rose and Spiegel, 2009a; Giannone et al. (2010)) and low income countries seem more isolated from the global cyclical pattern around the crisis (Didier et al. (2011)).

The general formula that I use is as in the following:

$$\Delta y_i = \beta_0 + \beta_1 CML_i + \beta_2 LML_i + \beta_3 BL_i + \beta_4 (\log) \text{GDPpc}_i + \beta_5 (\log) \text{pop}_i + \\ + \beta_6 AVGgrowth_i + \Delta\varepsilon_i,$$

where Δy_{it} indicates the Average GDP growth rate between 2008 and 2009 for country i, CML_i, LML_i and BL_i are the indices of Credit Market Liberalization, Labor Market Liberalization and Business Liberalization, respectively for country i; $(\log) \text{GDPpc}_i$ represents the (-log) level of income per capita; $(\log) \text{pop}_i$ indicates the natural logarithm of population; $AVGgrowth_i$ shows the Average Growth between 2002 and 2006 for country i and $\Delta\varepsilon_i$ is an error term that the standard linear regression assumptions are satisfied. I add control variables for each regression as:

$$\Delta y_i = \beta_0 + \beta_7 CV_i + \beta_1 CML_i + \beta_2 LML_i + \beta_3 BL_i + \beta_4 (\log) \text{GDPpc}_i + \beta_5 (\log) \text{pop}_i + \\ + \beta_6 AVGgrowth_i + \Delta\varepsilon_i,$$

where β_7 represents the coefficient of Control Variable (CV_i) for country i.

Estimates are given with their standard errors in parentheses and coefficients those significantly different from zero at the .05 (.01) significance levels are marked with one (two) asterisk(s).

CHAPTER IV

EMPIRICAL RESULTS AND CONTROLS

4.1. Controls

4.1.1. Credit Rating and Regulatory Quality

As a sub-component of Worldwide Governance Index, "Regulatory Quality" is a   measure that takes into account price liberalization, competition policies in various sectors, discriminatory taxes and tariffs, trade and exchange rate controls, access to capital markets and so on, hence it can be considered as a general index of market friendliness provided by the Frazer Institute Index of Economic Freedom. I use 2002 values of this index and obtain these values from the study of Kaufmann, D., A. Kraay, and P. Zoido-Lobaton (2002).

In this regard, Table 1 indicates the impacts of country ratings in 2007, regulatory quality of 2002 and country risk premiums in 2006 on post-crisis GDP growth rates as well as taking the market liberalization into account. These results are briefly presented as in the following:

Table 1: Credit Rating, Freedom and Regulatory Quality

Table 1: Credit Rating, Freedom and Regulatory Quality					
Dependent Variable: Average Growth in 2008-2009					
Regressors	**(I)**	**(II)**	**(III)**	**(IV)**	**(V)**
Euromoney Ratings in March 2007	-0,13* (0,08)	-0,09 (0,11)	-	-	-
Regulatory Quality, (KKM'02)	-	-4,20** (1,61)	-4,85** (1,78)	-1,85 (1,37)	-
Country Risk Premium, 2006	-	-	-0,53 (0,55)	-	-
Credit Market Liberalization (EFW' 06)	-	-	-	-1,63** (0,61)	-1,79** (0,61)
Labor Market Liberalization (EFW' 06)	-	-	-	1,25** (0,49)	1,00** (0,46)
Business Liberalization (EFW' 06)	-	-	-	0,22 (0,61)	-0,18 (0,54)
Average Growth 2002-2006	-0,17 (0,29)	-0,35 (0,28)	-0,32 (0,30)	-0,45* (0,24)	-0,44* (0,25)
(log) population in 2006	0,99 (1,03)	-0,10 (1,05)	0,51 (1,11)	1,07 (0,79)	1,02 (0,80)
(log) GDP per capita in 2006	3,02 (3,12)	0,93 (3,04)	2,86 (2,43)	-0,26 (1,89)	-1,48 (1,68)
Intercept	-8,78 (13,99)	-3,19 (13,34)	-8,35 (15,33)	2,66 (12,39)	12,06 (10,36)
Summary Statistics					
R^2	0,087	0,2098	0,2282	0,4643	0,4398
Adjusted R^2	0,0058	0,1200	0,1292	0,3705	0,3578
Number of Observations	50	50	45	48	48

Table 1: Each row reports the coefficients of the regression of average growth in 2008-2009 on the measures of regulation as "Credit Market Liberalization", "Labor Market Liberalization" and "Business Liberalization" and control variables presented in the left side of the Table. Coefficients, with robust standard errors are given in parentheses. The individual coefficient is significant at 10%* or 5%** level. The intercept, the log of GDP per capita in 2006, the log of population in 2006 and the average growth over the period 2002-2006 are also included in every regression.

Data sources: World Development Indicators, World Bank; Economic Freedom of the World; Euromoney Magazine; NYU Stern Database

Regression (I) takes into account the role of emerging market economies' ratings on the Euromoney index. Euromoney index includes measuring access to bond markets, trade finance, incorporate credit records, political risk, economic indicators and some economic forecasts (Giannone et al., 2010). The coefficient on rating in 2007 is negative and significant similar to Giannone et al. (2010)'s finding whereas the natural logarithm of income per capita, average growth between 2002 and 2006 and the (log-) level of population are all insignificant. This result indicates that emerging market economies with higher credit ratings have been more severely affected from the global crisis. To give an example, Albania has 5.5% GDP growth average between 2008 and 2009 with a credit rating of 37.84 over 100 in 2007 whereas Czech Republic has -0.2% GDP growth with a credit rating of 70.24 in 2007.

Regulatory Quality is included in the Regression (II) as an additional independent variable in order to understand what characteristics of the Euromoney ratings are negatively associated with the output loss of emerging market economies during the recent global crisis. Results of this second regression indicate that the rating turns into insignificant whereas regulatory quality becomes significant with a negative coefficient now as in the Giannone et al. (2010)'s paper. When I include average growth in 2002-2006, the natural logarithm of population in 2006 and (log-) level of GDP per capita with the rating and regulatory quality indices together in the regression, with a negative coefficient regulatory quality becomes the only significant variable. This finding also suggests that emerging market economies with the highest scores of quality of regulation have also been the least resilient to the global recession. Essers (2012) argues that as democracies could be better integrated into the world economy when the crisis occurred, they had to face with more problems resulted from the decrease in trade activities and capital flows. Hence, the most vulnerable emerging market economies were externally driven Eastern European economies during the global crisis. As an example, Latvia with a positive regulatory quality index of 0.86[10] in 2002 has a negative growth of -11.1 during 2008 and 2009 whereas Albania has a positive growth of 5.5 during the 2008 and 2009 with a negative regulatory index of -0.37 in 2002.

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[10] Regulatory Quality takes values lie between –2.5 and 2.5, with higher scores corresponding to better outcomes. This measure is same for all Worldwide Governance Indicators.

Correlations between GDP per capita in 2006, country rating, regulatory quality and average growth in 2008-2009 can be seen in Figure 5. GDP per capita in 2006, rating and regulatory quality are positively correlated pair-wise, whereas they are all negatively correlated with average GDP growth during the crisis.

Figure 5: 2008-2009 Growth Against Key Indicators

(Log Real GDP per capita, Euromoney Country Risk, Regulatory

Quality)
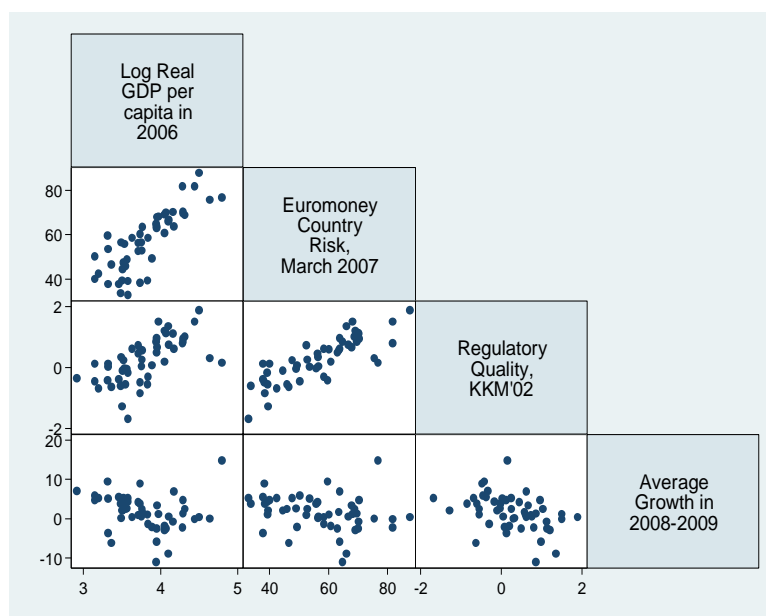
Increase in the country risk premium is taken into consideration by many researchers as one of the main reasons of global crisis due to the huge increase in securitization and risky asset holdings as well as financial openness. For this reason, Country Risk Premium in 2006 is added and evaluated in regression (III) in order to check whether the country risk has a significant impact on the GDP growth during the crisis. I find that this variable is insignificant whereas Regulatory Quality is still a negative significant indicator on GDP growth. Therefore, the Country Risk Premium can be excluded afterwards. As it is a significant variable on the impact of GDP growth during the post-crisis period, Regulatory Quality is kept in the formula.

Sub-components of the Economic Freedom Index, which are Credit Market Liberalization, Labor Market Liberalization and Business Liberalization, are added in regression (IV). The advantage of using the Economic Freedom Index comes from the fact that it provides a sectoral decomposition between credit, labor and business. Now, the aggregate index of regulatory quality becomes insignificant and those estimates point to a key role for credit market regulatory quality: The coefficient of Credit Market Liberalization is significant and negatively correlated with GDP growth during the recession, therefore it can be concluded that the crisis has been worse in countries with more market-friendly credit markets, in other words the countries with higher credit market liberalization indices. Labor market liberalization is also significant and positively correlated with GDP growth during the recession which can be due to the improvements in labor sectors of emerging market economies especially after 2000. However, business sector liberalization is found insignificant. The Average Growth in 2002-2006 is also found significant with a negative coefficient indicating that countries with positive GDP growth rates during 2002-2006 have experienced a decline in their GDPs between 2008 and 2009.

In regression (V), Regulatory Quality has been dropped from the equation and the regression is only checked for the sub-components of the Economic Freedom Index (Credit Market Liberalization, Labor Market Liberalization and Business Liberalization) which are stated above in details. Credit Market Liberalization is again significant with a negative coefficient and Labor Market Liberalization is also significant with a positive coefficient. The Average GDP growth between 2002 and 2006 is still significant with a negative coefficient whereas it is insignificant for the same regression performed for 102 countries (for details, see Table 6 in the Appendix section). On the other hand, the (log-) level of GDP per capita in 2006 is not a significant indicator on GDP growth of emerging market economies during the crisis whereas it is a significant negative indicator for 102 countries.

The (log-) level of population is insignificant in all of these regressions indicating that size has no significant impact on the incidence of crises across emerging market economies as well as for all economies in the world (see Table 6 in the Appendix section, for details). Excluding the effects of Regulatory Quality, Euromoney Ratings and Country Risk

Premium, it is positively correlated with the GDP growth of emerging market economies during the crisis.

According to these results, pre-crisis credit market liberalizations are negatively correlated with the resilience towards the global crisis particularly in emerging market economies. One explanation of this result could be that because of the omitted variables which are effective on countries' resilience to the global shock and which are correlated with Regulatory Quality, they do not reflect the actual correlation. In order to check this question mark, I also perform controls for various variables those could be effective on GDP growth during the crisis. These variables are selected from the previous studies in accordance with Giannone et al. (2010)'s and Rose and Spiegel (2009a,b)'s studies. At the end, I also check for the robustness of my findings appealing to the Change in the Country Credit Rating Indices.

The correlations of liberalization Indices pair-wise and with the Average Growth in 2008-2009 are presented in Figure 6.

Figure 6: 2008-2009 Growth Against Key Indicators

(Credit, Labor and Business Market Liberalization)
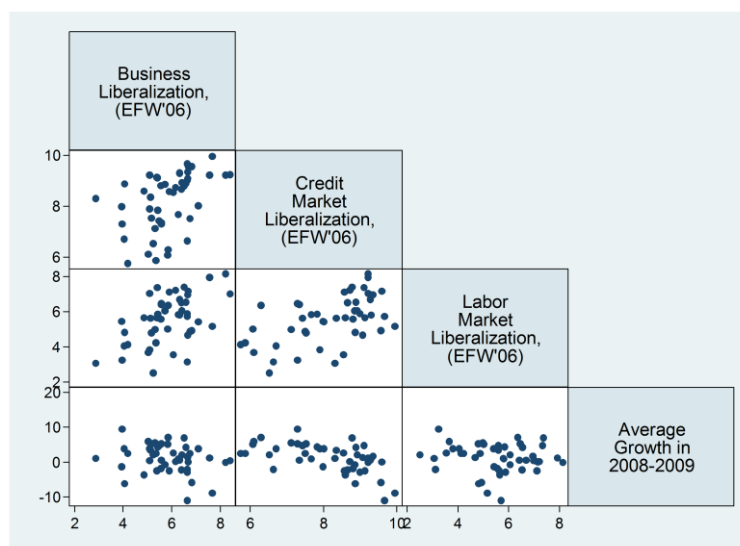
This figure also reflects the negative relationship of credit market liberalization and average GDP growth rates of emerging market economies during the global crisis. On the other hand, labor market liberalization is positively correlated with average GDP growth rates during the crisis which states that labor market liberalization contributes to decrease the crisis vulnerability of emerging market economies.

4.1.2. Openness

The recent global recession of 2008-2009 leads to a decline in trade and net capital flows into emerging markets. The spillover effects of sharp decline in global demand can be expected to be greater in countries with closer connections to the global economy (Rose and Spiegel, 2009b). However, countries with greater level of openness may have greater capability to avoid the worse impacts of national shocks in their economies by providing more risk sharing opportunities (Altug et al. (2012)). In this sense, financial integration is beneficial in terms of risk sharing, output and consumption smoothing, however it can also lead some worse outcomes such as open trade countries with more internationally integrated financial systems can be more vulnerable to global shocks.

Open economies with sound macroeconomic policies, well-designed legal framework as well as shareholder protection attract capital and have larger financial markets.[11] However, trade openness also has a very important role in the transmission of domestic shocks and there have been many studies regarding to this issue. Eichengreen and Rose (1998) find that while both macroeconomic and trade channels play a role in conveying shocks internationally, the trade linkages are the most significant pattern of contagion. Lane and Milesi Ferretti (2010), Rose and Spiegel (2009a,b) and Berglof, Korniyenko, Plekhanov, and Zettelmeyer (2009), Blanchard, Faruqee, and Das (2010), all have analyzed whether financial and real openness have an effect on the resilience towards the global shock and whether this resilience differs in terms of the degree of openness, relatively.

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[11] For details, please visit: http://data.worldbank.org/about/world-development-indicators-data/financial-sector

In order to test whether openness indicators have an impact on GDP growth performances of emerging market economies during the 2008-2009 crisis, I consider six indicators of real and financial openness as controls: the Sum of Export and Import as % of GDP in 2007, the Sum of External Assets and Liabilities over GDP in 2007 and the Sum of External Assets and Liabilities for Foreign Direct Investments (FDI) in 2007, Freedom to Trade Internationally in 2006, Exports to the United States and the European Union over Total Exports in 2006 and Trade with the United States and the European Union over Total Trade in 2006.

To enable robustness, both of financial and real types of indicators of openness are included. As being the epicenter of the global crisis the United States and the European Union countries are the most severely impacted ones, therefore I also include the bilateral trade patterns of emerging market economies with these countries in order to see whether this trade volume has an impact over the GDP growth performances of emerging market economies during the global crisis.

The results regarding to openness for emerging market economies are presented in Table 2.

Table 2: Openness

Table 2: Openness					
Dependent Variable: Average Growth in 2008-2009					
Control Variables	**Credit Market Liberalization, (EFW'06)**	**Labor Market Liberalization, (EFW'06)**	**Business Liberalization, (EFW'06)**	**Control Variable**	**Number of Observations**
Trade Openness (IMP+EXP) % GDP, 2007	-1,81** (0,61)	0,95* (0,48)	-0,28 (0,58)	0,004 (0,01)	48
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	-1,88** (0,61)	1,10** (0,48)	-0,27 (0,56)	-0,09 (0,37)	47
Financial Openness (Assets + Liabilities) / GDP, 2007	-1,74** (0,61)	0,88* (0,48)	-0,31 (0,54)	0,15 (0,12)	47
Freedom to Trade Internationally, 2006	-1,82** (0,62)	0,92* (0,50)	-0,33 (0,62)	0,40 (0,84)	48
Exports to US and EU/Total Exports, 2006	-1,82** (0,64)	1,04** (0,51)	-0,16 (0,57)	-0,0004 (0,03)	47
Trade with US and EU/Total Trade, 2006	--1,83** (0,62)	1,02** (0,50)	-0,16 (0,55)	-0,07 (0,05)	47

Table 2: Each row reports the coefficients of the regression of average growth in 2008-2009 on the measures of regulation as "Credit Market Liberalization", "Labor Market Liberalization" and "Business Liberalization"; each of the listed control variables are presented in the left side of the Table. Coefficients, with robust standard errors are given in parentheses. The individual coefficient is significant at 10%* or 5%** level. The intercept, the log of GDP per capita in 2006, the log of population in 2006 and the average growth over the period 2002-2006 are also included in every regression.

Data sources: World Development Indicators, World Bank; Economic Freedom of the World; Database by Lane and Milesi-Ferretti (2007), United Nations Commodity Trade Statistics Database, Eurostat

None of these control variables are found statistically significant over average GDP growth rates in 2008-2009. Even they are insignificant, the Sum of Export and Import as % of GDP in 2007, the Sum of External Assets and Liabilities over GDP in 2007 and Freedom to Trade Internationally in 2006 are found positively related with the crisis resilience which indicate that openness increases the resilience of countries in terms of providing integration with other countries. However, the Sum of External Assets and Liabilities for Foreign Direct Investments (FDI) in 2007, Exports to US and EU over Total Exports in 2006 and Trade with US and EU over Total Trade in 2006 (bilateral trade with the center of the crisis) have negative relations with the crisis resilience which suggests that external dependency makes countries more vulnerable for the outside shocks.

Similar to our previous results, Credit Market Liberalization has 95% significance for all control variables and has negative coefficient in each regression. Labor market liberalization is also found significant and positively related with the GDP growth rates of emerging market economies during the crisis.

4.1.3. Financial Development

In this section, I conduct controls for indicators of the size and depth of the financial sector, competitiveness of the banking sector and the general structure of the stock market. The data that I consider in this section comes from the World Bank Financial Development and Structure Database[12] which include many significant sources and various dimensions to obtain a general understanding of the existing financial system.

This database consists of statistics on the size, activity, efficiency, stability of banks, stock markets and bond markets with some competitiveness measures for these as well as indicators of financial globalization, international bonds and loans, off-shore deposits and net remittance inflows (see Beck, Demirguc-Kunt, and Levine (1999) and Beck, Demirguc-Kunt, and Levine (2009) for a recent update)..

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[12] The web site is: http://econ.worldbank.org/programme/finance

The indicators which are used in this section are measured in 2005 except the change in stock market capitalization which is taken for the change in years of 2003 and 2006. I use the following variables as indicators of size of the financial system, indicators of different characteristics of the banking sector and indicators of the size of the stock market. The indicators are classified below:

- Liquid Liabilities; Financial System Deposits; Private Credit by Money Banks and Other Financial Intermediaries (OFI) divided by GDP are used as the indicators of *size of the financial system.*

- Central Bank Assets and Deposit Money Bank Assets are indicators of the *size of the banking sector.*

- Net Interest Margin, Bank Overhead Costs and Bank Concentration are included as the indicators *for efficiency and competition of the banking sector.* Higher levels of net interest margins and overhead costs indicate lower levels of banking efficiency which indicate that banks incur higher costs and there is a larger gap between lending and deposit interest rates. Concentration is also defined as the ratio of the three largest banks' assets to total banking sector assets (Giannone et al., 2010)

- Stock Market Capitalization, Change in Stock Market Capitalization, Stock Market Total Value Traded and Stock Market Total Value Traded as % of Market Capitalization (Turnover) are used as the indicators of *the size of the stock market.* Market capitalization indicates the overall size of the stock market as a measure of market size which is positively correlated with the ability to mobilize capital and diversify risk.

By taking these indicators into the consideration, OLS results are obtained and presented in Table 3.

Table 3: Financial Development

Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization, (EFW'06)	Business Liberalization, (EFW'06)	Control Variable	Number of Observations
Table 3: Financial Development Dependent Variable: Average Growth in 2008-2009					
			Regressors		
Size of the Financial Sector					
Liquid Liabilities % GDP, 2005	-1,69** (0,58)	1,11** (0,44)	-0,22 (0,53)	-0,08 (1,37)	45
Financial System Deposits % GDP, 2005	-1,59** (0,57)	1,04** (0,43)	-0,28 (0,54)	0,40 (1,43)	46
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	-1,70** (0,57)	1,05** (0,41)	-0,43 (0,59)	1,20 (1,86)	46
Banking System					
Central Bank Assets % GDP, 2005	-1,32** (0,60)	1,04** (0,42)	-0,27 (0,49)	0,68 (7,42)	42
Deposit Money Bank Assets % GDP, 2005	-1,64** (0,56)	1,10** (0,42)	-0,14 (0,58)	-0,52 (1,90)	46
Net Interest Margin, 2005	-1,92** (0,58)	1,04** (0,45)	-0,62 (0,54)	-39,21* (19,61)	47
Bank Overhead Cost/Total Assets, 2005	-1,73** (0,58)	1,06** (0,44)	-0,82 (0,56)	-54,92** (24,24)	47
Bank Concentration, 2005	-1,66** (0,64)	1,18** (0,47)	-0,57 (0,60)	3,42 (3,48)	47
Stock Market					
Stock Market Capitalization % GDP, 2005	-1,81** (0,66)	0,89* (0,51)	-0,22 (0,58)	0,48 (0,89)	45
Change in Stock Market Capitalization 2003-2006	-1,67** (0,65)	1,01** (0,46)	-0,18 (0,54)	-0,99 (0,66)	45
Stock Market Total Value Traded % GDP, 2005	-1,82** (0,65)	0,90* (0,47)	-0,47 (0,61)	2,35 (1,88)	45
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	-1,83** (0,66)	1,02** (0,48)	-0,22 (0,59)	0,74 (1,57)	45

Table 3: Each row reports the coefficients of the regression of average growth in 2008-2009 on the measures of regulation as "Credit Market Liberalization", "Labor Market Liberalization" and "Business Liberalization" with listed control variables presented in the left side of the Table. Coefficients, with robust standard errors are given in parentheses. The individual coefficient is significant at 10%* or 5%** level. The intercept, the log of GDP per capita in 2006, the log of population in 2006 and the average growth over the period 2002-2006 are also included in every regression.

Data sources: World Bank Financial Structure Dataset, World Bank; Economic Freedom of the World

Credit Market Liberalization still has negative coefficient with a 95% confidence level in each regression, hence its sign and significance is confirmed and it remains robust in case of the inclusion of any of the controls. Labor Market Liberalization also have positive and significant value for almost each regression whereas they do not give this much significance for all country regressions included in Table 7 in the Appendix section.

Variables those I use for the size of the financial sector are not significant for emerging market economies as well as for all 102 countries. In addition to this, the coefficient of Liquid Liabilities is negative for emerging market economies different from the all country regression. Even though they are insignificant, other control variables positively correlate with resilience to the global recession. These positive coefficients support the view that countries with deeper financial markets are more resilient whereas countries with more deregulated markets perform worse.

Net Interest Margin (accounting value of a bank's net interest revenue as a share of its total earning assets) and Bank Overhead Cost over Total Assets are significant variables and they both have negative impacts on GDP growth of emerging market economies during the global crisis. Higher levels of net interest margins and bank overhead costs mean that banks have to expose higher costs which lead to a large gap between lending and deposit interest rates. As a result, these results indicate lower levels of banking efficiency. Therefore, the result states that the resilience of countries decreases towards a global shock with an increase in those variables. The negative correlations between these significant indicators and Average Growth between 2008 and 2009 are presented in Figure 7.

(Net Interest Margin and Bank Overhead Cost/Total Assets)
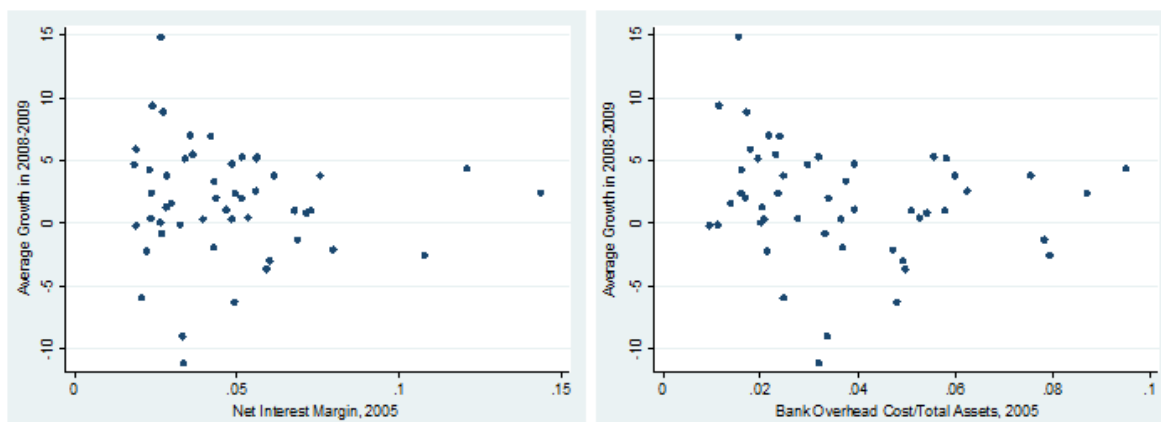
Furthermore, the coefficient of Bank Concentration which is defined as the ratio of three largest banks' assets to total banking sector assets is positive (but insignificant) which means that an uncompetitive banking system makes emerging market economies more resilient for global shocks.

Rose and Spiegel (2009a,b) find that countries which experienced a sharp increase in the stock market in the years before the global crisis had worse outcomes during the global crisis. As I find that they are positively correlated with the resilience toward the global crisis, their result is convenient with my result excluding the Change in Stock Market Capitalization variable which is negatively correlated with the GDP growth during 2008 and 2009.

4.1.4. Macroeconomics and Banks

I also perform my controls for macroeconomics and banks particularly to check risk taking behaviors of countries before the global crisis. Diaz-Alejandro (1985) state that Latin American financial reforms in the 1970s led banks to neglect reasonable regulations which causes to extreme indebtedness in the corporate sector. Risk-taking and risk management issues are investigated by many researchers, particularly after the global shock of 2008-2009. The literature asks whether the risk indicators are above any other indicators to

measure the resilience to the recent global shock. In this section, I also ask whether variables capturing the soundness of the banking sector are at least partially responsible for the negative result on Credit Market Freedom and I question whether this ongoing robustness continues or not.

Current Account Balance (% of GDP) and Gross Savings over GDP are taken in order to see whether the debt controlling patterns of emerging market economies have an impact on their resilience for global crisis.

As measures of the external balance position, I consider two of the variables used in Rose and Spiegel (2009a): Net Financial Assets to GDP Ratio (Net External Position) and External Debt as a Percentage of Gross National Income.

Domestic Credit to Private Sector as a share of GDP, Domestic Credit Provided by Banking Sector as a share of GDP and the Growth in Domestic Bank Credit are taken as measures of banking sector depth and financial sector development in terms of size and measures of relative domestic credit growth.

Finally, as measures of bank health and efficiency going into the crisis, the Share of Bank Non-Performing Loans to Total Gross Loans and as measures of bank solvency and resiliency Bank Capital to Assets Ratio are included.

OLS results are reported in Table 4.

Table 4: Macroeconomics and Banks

Table 4. Macroeconomics and Banks					
Dependent Variable: Average Growth in 2008-2009					
	Regressors				
Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization, (EFW'06)	Business Liberalization, (EFW'06)	Control Variable	Number of Observations
Current Account Balance (% of GDP), 2006	-1,21**	0,65	0,01	0,15**	47
	(0,57)	(0,44)	(0,49)	(0,04)	
Gross Savings (% of GDP), 2006	-1,34**	0,70	0,02	0,15**	47
	(0,57)	(0,45)	(0,50)	(0,05)	
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	-1,78**	0,88*	-0,16	0,20	43
	(0,64)	(0,49)	(0,58)	(0,14)	
External Debt Stocks (% of GNI), 2004	-1,18*	0,31	-0,12	-0,03	33
	(0,60)	(0,50)	(0,59)	(0,02)	
Domestic Credit to Private Sector (% of GDP), 2006	-1,85**	0,99**	-0,26	0,01	48
	(0,64)	(0,47)	(0,60)	(0,02)	
Domestic Credit Provided by Banking Sector (% of GDP), 2006	-1,83**	0,99**	-0,23	0,004	48
	(0,63)	(0,47)	(0,58)	(0,01)	
Growth in Domestic Bank Credit, 2000-2006	-1,31**	0,63	-0,17	-0,07**	48
	(0,60)	(0,46)	(0,51)	(0,03)	
Bank Capital to Assets Ratio (%), 2006	-2,03**	1,01*	-0,22	-0,14	40
	(0,67)	(0,53)	(0,64)	(0,18)	
Net Financial Assets to GDP ratio, 2004	-1,45**	0,76	-0,35	1,94**	47
	(0,60)	(0,46)	(0,51)	(0,82)	

Table 4: Each row reports the coefficients of the regression of average growth in 2008-2009 on the measures of regulation as "Credit Market Liberalization", "Labor Market Liberalization" and "Business Liberalization" with listed control variables presented in the left side of the Table. Coefficients, with robust standard errors are given in parentheses. The individual coefficient is significant at 10%* or 5%** level. The intercept, the log of GDP per capita in 2006, the log of population in 2006 and the average growth over the period 2002-2006 are also included in every regression.

Data sources: World Development Indicators, World Bank, Economic Freedom of the World; Database by Lane and Milesi-Ferretti (2007)

First, these results indicate that the robustness for the role of Credit Market Liberalization continues for emerging market economies similar to the regression results for 102 countries all over the world. Second, among these control variables listed above, Current Account

Balance over GDP in 2006, Gross Savings over GDP in 2006, Net Financial Assets to GDP Ratio in 2004 as well as Growth in Domestic Bank Credit between 2000 and 2006 are significant indicators on GDP growth of emerging market economies during the crisis. Net Financial Assets to GDP Ratio in 2004 is positively correlated with the GDP growth of emerging market economies during the global crisis similar to the results obtained from all country regression. Growth in Domestic Bank Credit between 2000 and 2006 is also significant and negatively correlated for emerging market economies similar to the results obtained for 102 countries.

Current Account Balance over GDP is also significant with a positive coefficient of 0.15. This indicates that emerging countries with larger current account deficits were more reliant on foreign financing and therefore they are more vulnerable to a sudden stop of capital inflows. Hence, emerging market economies with large current account deficits are the ones highly affected from the 2008-2009 global crisis which is in line with the earlier studies (Lane and Milesi-Ferretti (2010), Blanchard, Faruqee and Das (2010) and Claessens et al. (2009)). To give an example, Estonia with a negative current account deficit ratio over GDP of 15.39% has a negative GDP growth rate of -8.96 whereas Singapore with a positive current account balance of 25.95% has a positive growth rate of 0.36 during the crisis.

The positive correlation between the significant variable of Current Account Balance and Average Growth between 2008 and 2009 is presented in Figure 8.

Figure 8: 2008-2009 Growth Against Key Regressors

(Current Account Balance)

Current Account Balance (% of GDP) in 2006
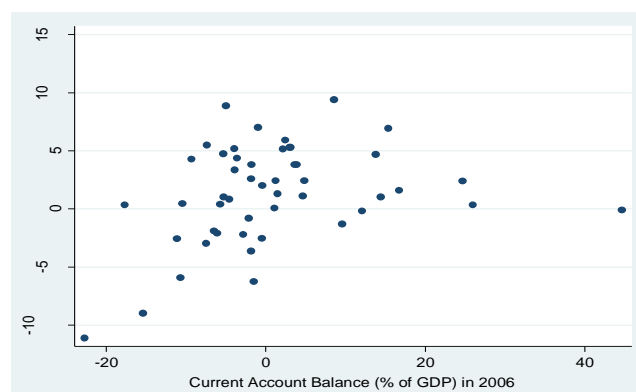
Gross savings is also another factor to decrease the vulnerability of countries against outside shocks. The significant and positive coefficient of "Gross Savings over GDP" is in line with this view. Onis (2010) argues that countries with more balanced economic indicators particularly with high savings ratios have showed more effective performances during the global crisis. The data also supports this result which suggests that emerging market economies with higher savings amounts such that China and India with savings amounts of 52% and 35%, respectively performed better during that period with average GDP growth rates of 9.4% and 7.0%, respectively. On the other hand, Latvia and Hungary had low GDP growth rates of -11.0% and -2.9%, respectively with their lower gross savings amounts of 17.7% and 17.5%, respectively.

The positive correlation between the significant variable of Gross Savings and Average Growth between 2008 and 2009 is presented in Figure 9.

Figure 9: 2008-2009 Growth Against Key Regressors

(Gross Savings)
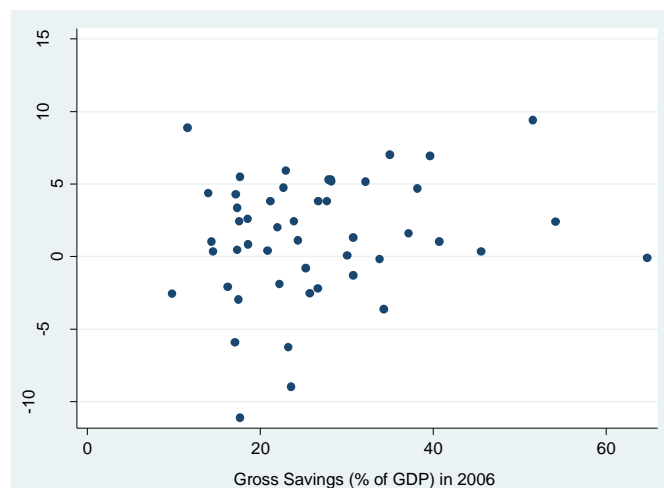
On the other hand, even though it is insignificant the positive sign of the Share of Bank Non-Performing Loans to Total Gross Loans indicates the deterioration of the credit portfolio of emerging market economies before the global crisis. Loans are classified as nonperforming when payments of principal and interest are 90 days or more past due or when future payments are not expected to be received. Besides, the ratio of Bank Capital to

Assets shows the extent to which banks can deal with unexpected losses which has a negative relation with the GDP growth rates of emerging market economies during the global crisis.

The correlations of Average Growth between 2008 and 2009 with other significant indicators of Growth in Domestic Bank Credit and Net Financial Assets over GDP are presented in Figure 10.

Figure 10: 2008-2009 Growth Against Key Regressors

(Growth in Domestic Bank Credit and Net Financial Assets/GDP)
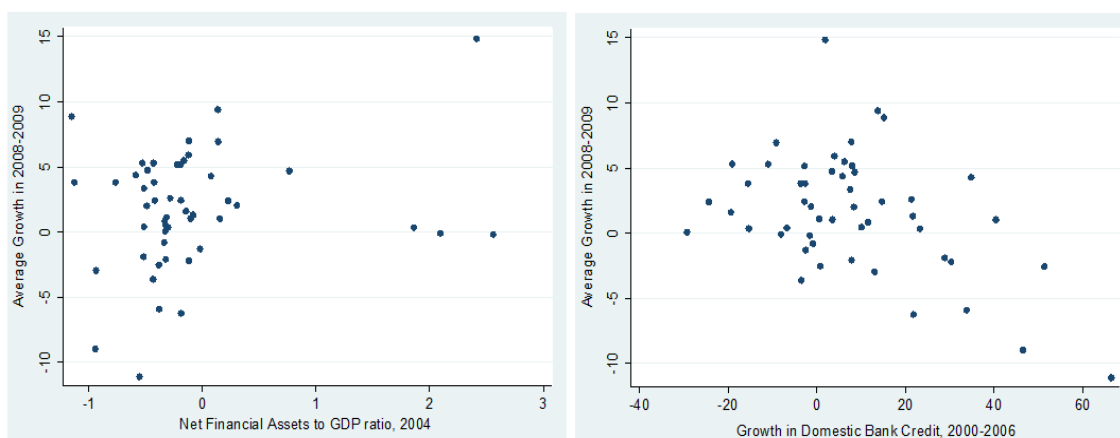
Growth in Domestic Bank Credit between 2000 and 2006 has a negative correlation with average GDP growth rates of emerging market economies in 2008-2009 with a 95% confidence level. During the boom, rapid expansion in household credit leads to sharp increases in leverage and vulnerabilities in many emerging market economies (Claessens, 2009). Many countries faced with huge increases in the extension of domestic credit, both for investment and consumption, which leads to a huge increase in the leverage of firms and households (Rose and Spiegel, 2009a) and finally to a decline in confidence and increase in risk (Brunnermeier, 2009). However, after the rapid decline in the credit extension terms, consumers and firms require for deleveraging which leads to decline in these two major and important components of GDP (Boone, Johnson and Kwak, 2009).

4.1.5. Institutions

I check for the effects of institutional features across emerging market economies in crisis severity. Acemoglu et al. (2003) find that countries with inferior institutional features suffer from increased macroeconomic volatility. Altug and Canova (2012) conclude that improved institutions lead to better cyclical outcomes. Development economists have also state that if greater trade and financial liberalization are not supported through appropriate policies that benefit large proportion of the population, countries may fail to have sustainable growth, in other words only countries with improved institutions are able to experience expansions and less volatile fluctuations (Altug and Canova, 2012).

The indices of governance are used in the recent literature particularly to try to identify the factors behind the huge GDP losses during the 2008-2009 crisis. In this regard, Giannone et al. (2010) only focus on regulatory quality as an institutional indicator for the pre-crisis period. In their study, Frankel and Saravelos (2010) use an index of legal rights and an index of business disclosure as a potential leading indicator for the 2008-2009 financial crisis. Rose and Spiegel (2009a, b) use a lot of indicators to see the impact of institutions on the post-crisis period. By taking all of these studies into consideration, I select to use the below indicators.

To control for institutional differences, I include the Polity index with a measure of Constraints on the Executive from the Polity IV Dataset, the EFW measures of Government Size, Security of Property Rights, and Sound Money Access with different dimensions of governance provided by the World Bank (see Kaufman, Kraay and Mastruzzi, 2009) as (i) voice and accountability, (ii) political stability and absence of violence/terrorism, (iii) government effectiveness, (iv) regulatory quality, (v) rule of law, and (vi) control of corruption. I perform regressions for all of these institutional indicators individually by using them as control variables. The results are indicated in Table 5.

Table 5: Institutions

Dependent Variable: Average Growth in 2008-2009					
	Regressors				
Control Variables	**Credit Market Liberalization, (EFW'06)**	**Labor Market Liberalization, (EFW'06)**	**Business Liberalization, (EFW'06)**	**Control Variable**	**Number of Observations**
Polity, 2006	-1,47** (0,57)	0,97** (0,43)	-0,33 (0,50)	-0,24** (0,08)	46
Constraints on Executive, 2006	-1,61** (0,57)	1,02** (0,44)	-0,22 (0,51)	-0,76** (0,26)	46
Size of Government, 2006	-1,83** (0,62)	1,03** (0,48)	-0,14 (0,56)	-0,14 (0,42)	48
Legal Structure and Security of Property Rights, 2006	-1,88** (0,62)	1,16** (0,50)	0,27 (0,74)	-0,78 (0,88)	48
Access to Sound Money, 2006	-1,78** (0,60)	0,93** (0,46)	-0,32 (0,54)	0,53 (0,41)	48
Voice and Accountability, (KKM'02)	-1,51** (0,56)	1,23** (0,43)	0,02 (0,49)	-2,42** (0,77)	48
Regulatory Quality, (KKM'02)	-1,63** (0,61)	1,25** (0,49)	0,22 (0,61)	-1,85 (1,37)	48
Political Stability, (KKM'02)	-1,66** (0,61)	1,21** (0,49)	-0,12 (0,54)	-0,99 (0,79)	48
Government Effectiveness, (KKM'02)	-1,80** (0,61)	0,94* (0,49)	-0,35 (0,68)	0,55 (1,32)	48
Rule of Law, (KKM'02)	-1,75** (0.62)	0,90* (0.51)	-0,36 (0.67)	0,62 (1.33)	48
Control of Corruption, (KKM'02)	-1,56** (0,63)	0,69 (0,51)	-0,70 (0,66)	1,76 (1,31)	48

Table 5: Each row reports the coefficients of the regression of average growth in 2008-2009 on the measures of regulation as "Credit Market Liberalization", "Labor Market Liberalization" and "Business Liberalization" with listed control variables presented in the left side of the Table. Coefficients, with robust standard errors are given in parentheses. The individual coefficient is significant at 10%* or 5%** level. The intercept, the log of GDP per capita in 2006, the log of population in 2006 and the average growth over the period 2002-2006 are also included in every regression.

Data sources: World Governance Indicators, World Bank, Economic Freedom of the World; Polity IV Data Set

These results indicate that Polity Index, Constraints on Executive and Voice and Accountability from these eleven control variables with negative coefficient signs have significant impacts on GDP Growth of emerging market economies in 2008-2009 crisis. Voice and Accountability is a governance indicator capturing perceptions of the extent to which a country's citizens are able to participate to select the government with freedom of expression, freedom of association, and a free media which is almost similar to the democratic features of Polity Index and Constraints on Executives.

According to these results, many of these governance indicators have negative impacts on GDP growth performances of emerging market economies during 2008 and 2009. China is a good example for these results showing that as an autocracy how it could achieve impressive growth in booming times by having advantages on more accountable regimes. Essers (2012) finds similar results (all indicators above are found negatively correlated with the GDP growth during the global crisis) for these indicators and his findings suggest that there is a negative correlation between democratic indicators and crisis growth. To give an example, countries such that Latvia, Slovenia and Ukraine with high positive polity indices have large negative growth averages during the crisis whereas China with its low Polity index of -7 has a 9.4% Average GDP growth. Essers (2012) states the possible reasons behind of this result as democracies could be better integrated into the world economy when the crisis hit, hence more exposed to the resulting external shocks of decrease in trade activities and capital flows. Also, this result can due to the fact that as having rapid changes and fast developments, emerging market economies, particularly the Central and Eastern European economies do not have sufficient time to establish strong and well-organized institutions different from the European Union and the United States. Therefore, these undeveloped and unorganized institutional frameworks have negative impacts on emerging markets notably in times of bad economic situation.

On the other hand, the robustness of Credit Market Liberalization continues with significant negative values in each row. Labor Market Liberalization is also significant for the first ten control variables listed above with positive coefficients in each. From the control variables, Access to Sound Money, Government Effectiveness, Rule of Law and Control of Corruption are the variables which affect the GDP Growth during 2008-2009 positively but

insignificantly. The correlations of Polity and Constraints on Executive and also 2002 values of Governance Indicators with Average Growth in 2008-2009 are presented in Figure 11 and Figure 12, respectively:

Figure 11: 2008-2009 Growth Against Key Regressors

(Polity Index and Constraints on Executive)
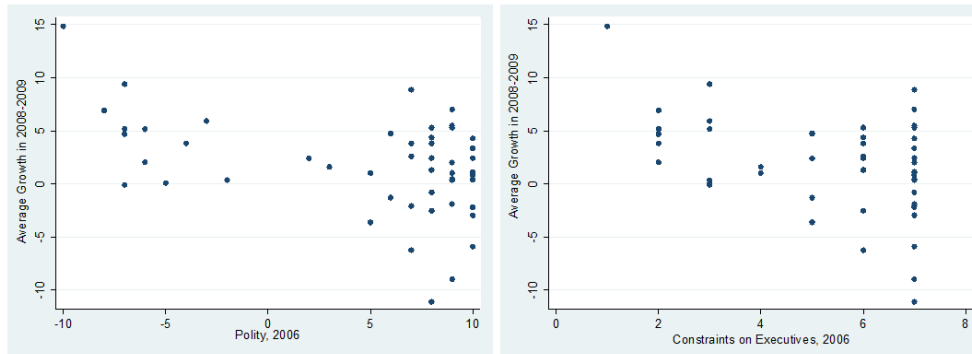
Figure 12: 2008-2009 Growth Against Worldwide Governance Indicators
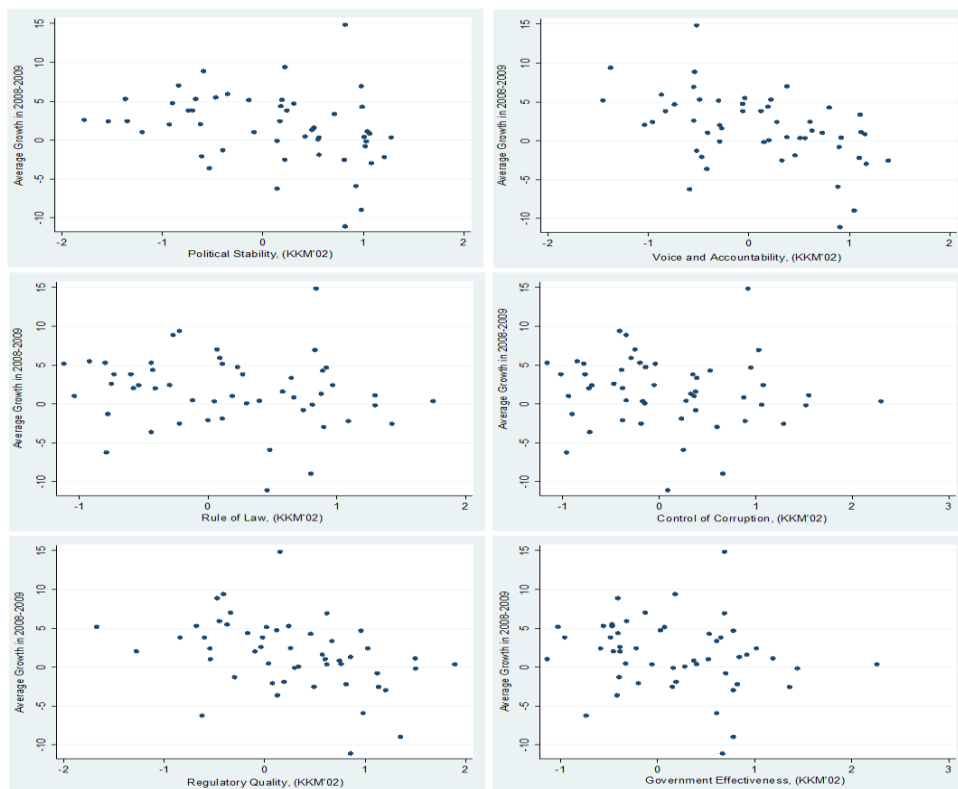
All of these regressions until now state that Credit Market Liberalization has negative and significant impact on GDP growth performances of emerging market economies. Labor Market Liberalization is also significant for most of these control variables and it has a positive impact on GDP growth performances during the crisis which suggests that labor market regulations during 2000s have positive effects on emerging market economies' resilience during the crisis. However, in order to sure the robustness of credit market liberalization over other market regulatory indices of labor market liberalization and business liberalization, I perform another control by multiplying these two indices against the index of credit market liberalization. The formula that I use is described as in the following:

$$\Delta y_i = \beta_0 + \beta_1 CML_i + \beta_2 LML_i BL_i + \beta_4 (\log) \, \text{GDPpc}_i + \beta_5 (\log) \, \text{pop}_i + \beta_6 AVGgrowth_i + \Delta \varepsilon_i,$$

Therefore, by taking the impacts of these indices together I perform my regressions for all control variables listed above. The results are provided in Table 8 in the Appendix part indicating that credit market liberalization still has a significant and negative impact on GDP growth performances of emerging market economies and it is robust for all variables.

4.2. Country Differences

4.2.1. Emerging Countries vs. Advanced Countries

There are many studies stating that emerging countries are more resilient than advanced economies during the 2008-2009 crisis as the advanced countries attained lower GDP growth rates than emerging market economies (Didier et al.,2011; Eichengreen, 2009; Claessens et al., 2010; Frankel and Saravelos, 2010; Lane and Milesi-Ferretti, 2010; Rose and Spiegel, 2009a, 2009b, and 2010). Researchers claim that one of the major reasons behind of this resilience is emerging market economies were able to use a larger set of policy tools. In this regard, Didier et al. (2011) relate the behavior of emerging market economies during the global crisis to the crisis transmission mechanisms (trade and finance) and a structural break in the way they conducted their policies.

After obtaining the results that credit market liberalization has a negative significant impact on the growth performances of emerging market economies, I ask whether the impact of credit market liberalization is lower on emerging countries than advanced economies during the 2008-2009 crisis. Therefore, I only take 51 emerging economies, and 25 advanced economies from the data sample in order to test this (for detailed information in terms of countries, please refer to Table 10 in the Appendix section).

The formula that is previously used is shown as in the following:

$$\Delta y_i = \beta_0 + \beta_1 CML_i + \beta_2 LML_i + \beta_3 BL_i + \beta_4 (\log) \text{GDPpc}_i + \beta_5 (\log) \text{pop}_i + \\ + \beta_6 AVGgrowth_i + \Delta \varepsilon_i,$$

Now, I will add a dummy variable in order to check whether the negative impact of Credit Market Liberalization is lower for emerging countries than the advanced economies during the 2008-2009 crisis. To check this, I introduce a dummy variable on the variable of credit market liberalization. The dummy variable is equal to 1 for emerging market economies, and to 0 for advanced economies.

Therefore, the equation takes the following form:

$$\Delta y_i = \beta_0 + (\beta_1 + \beta_7 D_i) CML_i + \beta_2 LML_i + \beta_3 BL_i + \beta_4 (\log) \text{GDPpc}_i + \beta_5 (\log) \text{pop}_i + \\ \beta_6 AVGgrowth_i + \Delta \varepsilon_i,$$

where D_i represents dummy variable.

By performing OLS regressions according to this condition, I obtain the following result:

$\beta_1 = -0,96 \ (0,51)^{[13]}$ with a 90% confidence interval. $\beta_7 = 0,09 \ (0,10)^{[14]}$. If the dummy variable was significant I could definitely tell that in terms of the impact of credit market liberalization on GDP growth rate during the post-crisis period, advanced countries are

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[13] The standard errors are given in parentheses.
[14] The coefficient for dummy variable is insignificant but has positive value.

affected worse than the emerging market economies and the emerging countries are more resilient for the global shock. However, it can be intuitively concluded that since it is positively correlated, the negative impact of credit market liberalization is lower in emerging market economies compared to advanced countries.

Didier et al. (2011) also assert that, without taking the specific impact of credit market liberalization into the consideration, during the recovery phase of the global crisis, emerging market economies were more resilient since, "(1) the problem is occurred from the financial markets of the advanced economies, however emerging market economies had a lower exposure to these markets relative to other developed economies, (2) since there is a convergence process, emerging market economies has a rapid pace of development compared to advanced economies. Therefore, through a recovery of their growth pattern emerging market economies' output comes back to the pre-crisis level sooner, (3) the international trade. Hence, many firms all around the world stopped their international orders at the beginning of 2008, but after a while the global demand increased again and they required the manufactures from emerging markets which also lead to a faster recovery for emerging countries, (4) many emerging market economies faced with the global crisis when they had more fiscal space, better domestic balance sheets, and the required credibility to implement expansionary fiscal and monetary policies."

Furthermore, Altug (2010) asserts that the resilience of emerging market economies towards the 2008-2009 crisis can be associated with the crises that they faced with from the mid 1990s till the beginning of 2000s, hence they had to to implement of some structural and institutional reforms with various policy changes. The resilience of emerging market economies to the 2008–2009 crisis might be partly attributed to a combination of sounder macroeconomic and financial policy frameworks with a shift towards safer domestic and international financial stances and this view is supported by Frankel et al. (2011), Gourinchas and Obstfeld (2011), and Kose and Prasad (2011) through different perspective of views.

4.2.2. More Liberalized Countries vs. Less Liberalized Countries

The literature states that credit market liberalization contributes to the economic growth (Levine (1998); Levine (2005); Stankov (2012)). However, current studies are questioning this view with an argument of if the liberalization process is performed without proper regulations, then this leads to vulnerabilities in the financial sectors in case of a sudden shock. With regard to this claim, Broner and Ventura (2010) focus on the timing of financial liberalization and assert that even the neoliberal view claims that the earlier is better, unless the country is poor –as the domestic asset trade of a poor country does not lead to bad effects that much- then the start of liberalization process should wait until the country gets ready.

Previous sections state that credit market liberalization leads to more vulnerable financial systems for emerging market economies which prevent them to be more resilient towards the global financial crisis. As most of emerging market economies were exposed to regional crises during 1990s until the early 2000s, the exact change in their credit market liberalizations is realized notably after 2001. Hence, I've also intended to test whether the emerging market economies with more liberalization during the pre-crisis period are affected worse than the countries performed less in their credit markets during this period. My methodology and calculations in this section are based on Stankov (2012)'s study.

In terms of credit market liberalization, Stankov (2012) conducts a study for 108 countries to test whether early liberalized economies have better performances than late liberalized economies. Estevadeordal and Taylor (2008) introduce this methodology into the literature which enables to use dummy variables. Inspiring from this methodology, instead of using credit market liberalization indices directly, Stankov (2012) divides the countries into four groups according to the above-median increase in credit market liberalization indices for years 1975-1990 and 1990-2005 to compare liberalization outcomes in countries that liberalized early and consistently with the liberalization outcomes in those countries that did not actively engage in liberalization. Therefore, he obtains reformers (above-median in the related period) and non-reformers (below-median in the related period) for each year division which gives four groups in total as: 1) reformers in the first period becoming non-

reformers in the second period – the early reformers; 2) non-reformers in the first period becoming reformers in the second period – the late reformers; 3) reformers in both periods –the "marathon" reformers; 4) non-reformers in both periods.

Similar to this methodology, I define the emerging market economies with an above-median increase in the Economic Freedom of the World (EFW) Index of Credit Market Liberalization between 2001 and 2006 as more liberalized, whereas I call others as less-liberalized during this period. As most of the emerging market economies suffered from the crises from late 1990s until the early 2000s such that a slight decline in Asian liberalization index in 1997 was followed by gradual reforms and transition countries also have started their liberalization process by 2002, I decide to use the period from 2001 to 2006 to specify their positions (whether they are more liberalized or less liberalized).

I use Credit Market Liberalization indices from the EFW 2006 data where I could have full data only for 47 emerging market economies for my original sample of 51 economies. This strategy enables us to see whether the emerging market economies those liberalized more after 2000s differentiate from those not liberalized as much at all. In the light of this approach, by calculating the median value of the change in Credit Market Liberalization index, I divide these 47 countries into two groups such that more liberalized (above and equal to median) and less liberalized (below-median) as in the following:

More liberalized emerging market economies (31): Albania, Algeria, Bulgaria, Chile, China, Colombia, Costa Rica, Czech Republic, Ecuador, Estonia, Hungary, Indonesia, Iran, Israel, Korea Republic, Kuwait, Latvia, Lithuania, Malaysia, Mauritius, Mexico, Romania, Russia, Singapore, Slovak Republic, Slovenia, Sri Lanka, Thailand, Turkey, Ukraine and Venezuela.

Less liberalized emerging market economies (16): Argentina, Armenia, Bahrain, Barbados, Brazil, Croatia, Dominican Republic, Egypt, Hong Kong, India, Morocco, Oman, Peru, Poland, South Africa and Tunisia.

I use the following equation to assess the impact of Credit Market Liberalization on GDP growth of more liberalized and less liberalized emerging market economies during 2008-2009.

$$\Delta y_i = \beta_0 + (\beta_1 + \beta_7 D_i) CML_i + \beta_4 (\log) \text{GDPpc}_i + \beta_5 (\log) \text{pop}_i + \beta_6 AVGgrowth_i + \Delta \varepsilon_i,$$

where D_i is the dummy variable and takes 1 for countries which are called as "more liberalized" whereas it takes 0 otherwise.

After performing OLS regressions, I obtain the following result. $\beta_1 = 0{,}98$ (0,60) and $\beta_7 = 0{,}23$ (0,13) both with a 90% confidence interval. Therefore, it can be concluded that among emerging market economies, countries with an above-median increase in credit market liberalization between 2001 and 2006 performed worse during the global crisis.

Therefore, it can be concluded that credit market liberalization has negative impacts on the GDP growth performances of emerging market economies during the global recession as well as among emerging market economies which implied more liberalization before the crisis have experienced worse outcomes compared to the others with less liberalization.

CHAPTER V

ROBUSTNESS CHECK

Financial integration has brought greater international risk sharing, competition and efficiency as well as a higher risk of transmitting financial shocks across borders (Claessens, 2009). Risky operations and transactions have increased during the liberalization era and in addition to the negative impact of credit market liberalization, risky behavior of countries after 2000s and excess securitization processes also lead to huge GDP declines during the global crisis.

On the other hand, a question mark is emerged whether the risky behaviors can offset the negative impact of credit market liberalization on the GDP growth of emerging market economies during the 2008-2009 crisis. In order to check whether the negative significant coefficient of credit market liberalization is robust to the findings above, inspiring from the study of Rose and Spiegel (2009a) I have also added the indicator of "Change in Country Credit Ratings Risk" between March 2008 and March 2009 as a further condition. Institutional Investor publishes these rankings biannually in March and September for every year; hence I use the one year change between March 2008 and March 2009[15]. These rating indices are obtained from the related issues of Institutional Investor.

Giannone et al. (2010) use 2007 ratings from the Euromoney Magazine, I have also checked for the correlation between these indices for the declaration time of March 2008 which gives a 0.97 correlation value means that they are highly correlated and Institutional Investor points can be used as substitutes for Euromoney Ratings for the regarding period. Institutional Investor's Country Credit ratings are calculated on the basis of information

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[15] March 2008 and March 2009 data is obtained from the following links, respectively:
http://www.nxtbook.com/nxtbooks/ii/0308-intl/index.php?startid=88,
http://www.nxtbook.com/nxtbooks/ii/0309/index.php?startid=39#/40

Country Credit Ratings are provided in Table 9 in the Appendix section.

provided by senior economists and sovereign-risk analysts at leading global banks and money management and securities firms, the rating scale is between zero and 100, where 100 representing the highest quality, in other words the least likelihood of default. For emerging market economies, the correlation between the "Change in Country Credit Ratings Risk" and "Credit Market Liberalization" indices is -0,26 whereas it is -0,23 for all country sample.

Now, the OLS regression takes the form of:

$$\Delta y_i = \beta_0 + \beta_7 CV_i + \beta_8 \Delta CR_i + \beta_1 CML_i + \beta_2 LML_i + \beta_3 BL_i + \beta_4 (\log) \text{GDPpc}_i +$$
$$\beta_5 (\log) \text{pop}_i + + \beta_6 AVGgrowth_i + \Delta \varepsilon_i,$$

where ΔCR_i reflects the change in Country Credit Ratings Risk between March 2008 and March 2009.

After performing the same OLS regressions with previous control variables for those 51 emerging economies by adding one more control variable (Change in Country Credit Risk), I obtain the results presented in Table 9 in the Appendix section. The addition of this control variable into the equation does not lead to any change in the negative sign of Credit Market Liberalization for emerging market economies for each regression, but the significance of the Credit Market Liberalization is affected for control variables of Current Account Balance over GDP in 2006, Gross Savings (% of GDP) in 2006, Central Bank Assets over GDP in 2005, External Debt Stocks over GNI in 2004, Net Financial Assets to GDP ratio, 2004 and Growth in Domestic Bank Credit between 2000 and 2006.

Overall, this addition just slightly decreases the negative impact of credit market liberalization on the GDP Growth Rate in 2008-2009. The coefficient of the Change in Country Credit Ratings is positive and significant for most variables which means that as the credit rating of countries increases, the average GDP growth rates of countries during the recession increases which is also an anticipated result in general. This leads us to see the significance of the country risk on the economies to be resilient towards a global shock

and indicates that as the advanced economies take more risk compared to emerging economies, the resilience of emerging markets against the global shock was stronger.

CHAPTER VI

POLICY IMPLICATIONS AND CONCLUDING REMARKS

6.1. Policy Implications

Following the regional crises of 1990s, liberalization policies resulted from the Washington Consensus are started to be questioned by researchers and policy makers all around the world and the global crisis has increased these debates. Even though there are many studies advocating financial liberalization to generate growth particularly for emerging market economies, international capital firstly flows out from these economies in case of a sudden shock. Rodrik (2006) defines the current situation where the previous policies are started to be questioned as a "Washington Confusion" era for emerging market economies and developing countries.

Financial liberalization is significant for economic development as well as for growth, however it can also be harmful if some necessary improvements do not realize. Tornell and Westermann (2005) state that financial liberalization may lead to financial fragility and vulnerability unless it is done in a right way. Even though private enforcement is possibly the most important and the most effective mechanism (Berglof and Claessens, 2006), Claessens and Perotti (2007) claim that full liberalization is not so good and financial institutions require some constraints on their actions in order to decrease the riskiness factor.

Tornell and Westermann (2005) also indicate that countries with more stable credit growth had the lowest growth rates on average during the global crisis and assert that even though strong credit channel is important for economic growth it also leads large fluctuations. It is also argued that in the aftermath of the financial liberalization process, capital flows have mostly gone in the wrong direction which do not have any clear impacts on investment and growth and this final impact may depend on whether the country is rich or poor, whether it

has developed or underdeveloped its domestic financial markets and whether its institutional framework has high or low quality in general (Broner and Ventura, 2010).

Notably, the shadow banking system which is the collection of financial entities, infrastructure and practices which support financial transactions that occur beyond the existing state monitoring and regulation and in case of such a significant part of the financial sector operated outside of the banking regulations is also responsible for creating systemic risks (Claessens, 2009). According to this, since non-bank financial intermediaries in emerging market economies are smaller than those in advanced economies, it is necessary to upgrade their regulatory frameworks in a more comprehensive way (Kawai and Prasad, 2011).

The weaknesses of financial structures are found responsible from the global financial crisis by allowing excessive risk taking of financial organizations where the regulations were not sufficient in order to deal with the rapid growth in derivatives and securitized credit (Claessens, 2009). Regarding to these, there are many studies indicating that in order to provide the appropriate conditions for financial liberalization to be effective and to have financial stability, emerging market economies should implement several structural reforms and need to strengthen their institutional frameworks for the purpose of raising productivity and improving their institutions to enhance the productivity and growth (Claessens, 2009; Broner and Ventura, 2010; Kawai and Prasad, 2011).

Claessens (2009) suggests that emerging market economies should give more reliance to market-based approaches in regulation and supervision as well as imposing some restrictions and not adopting a total liberalization. Emerging market economies have to cope with the interest rate changes, huge fiscal deficits and government interventions in the financial sector in order to manage the global recession which indicates the requirement of the implementation of better regulatory measures.

However, regulations can be inefficient for emerging market economies by preventing financial innovations as well as being vulnerable to political influences and the interventions can create some distortions in economies. Therefore, prevention from the

crisis is better notably with well-designed fiscal policy, monetary policy, national regulation and supervision and developed international financial structure (Claessens, 2009). There is a necessity of better risk assessments and risk management practices for emerging market economies (Kawai and Prasad, 2011). This is necessary to deal with vulnerabilities and to obtain more accurate and timely information such that develops new sources and increases transparency (Claessens, 2009). .

Regulations should also provide some incentives for the private sector, particularly for rating agencies and for subsidiaries of major multinational financial institutions located in emerging market economies in order to take into account the riskiness of their own activities and their final results (Claessens, 2009). Besides that, regulators should be able to monitor all financial activities of several institutions as well as banks in terms of their risk management structures (Claessens, 2009).

Lobbying by financial institutions is one of other significant factors which contributes to a riskier environment and is a threat for the stability of the financial system (Igan et. al, 2009). As financial institutions can lobby to obtain private benefits on their behalf, lobbying with all of its rent seeking activities are socially undesirable. Hence, there should be tight regulations in order to have control over this kind of motivations. The main objective of lobbying activities is to obtain high short-term benefits, hence that kind of political influence of the financial industry contributes to risk-taking activities and to the establishment of more lobbying. But, instead of trying to prevent lobbying, if managers would be directed to pursue long-term profits, this may be resulted with a decline in excessive risk-taking (Igan et. al, 2009). Also, if financial institutions can also lobby to reveal information on the mortgage lending market and gain support for innovation in financial services with social purposes, this leads to an end of moral hazard problem. The prevention of future crises might require weakening political influence of the financial industry or closer monitoring of lobbying activities to understand the incentives behind better (Igan et al., 2009).

To sum up, credit market liberalization should be implemented with appropriate policies together in order to have a healthier financial framework in emerging market economies.

As these economies could be more fragile in case of a sudden shock compared to advanced economies with better organizations and institutions, a well-designed organizational structure should also be provided through new designed policies. Bernanke (2010) states that private sector and financial regulators must improve their ability to monitor and control risk-taking while Johnson (2009)[16] emphasizes that the political power of the finance industry should be weakened in order to preserve the financial improvements and reforms by financial institutions. Controlling lobbying activities is also another important factor to prevent future crises.

6.2. Concluding Remarks

This thesis aims understanding the link between financial liberalization amongst emerging market economies and their vulnerability to cyclical shocks. With this regard, I conclude that the set of policies that favor liberalization in credit markets have negative impacts on emerging market economies' resilience towards the 2008-2009 economic crisis. As the policies have favored increasing financial market liberalization, particularly for the development of emerging market economies since 1980s, this study is important in terms of re-evaluation of these policies.

The impact of credit market liberalization on the growth performances of emerging market economies is measured by using the 2008-2009 average output growth rate of these economies as the dependent variable. I examine many explanatory variables for the crisis from the early literature which cover the regulatory framework, financial conditions with macroeconomic, institutional, and general characteristics of countries where the negative correlation of credit market liberalization is kept its validity for all of these controls.

Most of the control variables seem to be statistically insignificant determinants of crisis severity. The natural logarithm of population in 2006 and Labor Market Liberalization with Current Account Balance over GDP in 2006, Gross Savings (% of GDP) in 2006 and Net Financial Assets to GDP ratio in 2004 (Macroeconomics and Banks) are control variables which positively affect the GDP growth level of emerging market economies during the

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[16] Johnson, Simon (2009), "The Quiet Coup", *The Atlantic*, May.

global crisis. In addition to Credit Market Regulatory Quality, the variables which negatively affect the crisis resilience of emerging market economies are Average Growth during 2002-2006; Net Interest Margin in 2005 and Bank Overhead Cost over Total Assets in 2005 (Financial Development); Growth in Domestic Bank Credit between the years of 2000 and 2006 (Macroeconomics and Banks); Polity Index in 2006, Constraints on Executive in 2006 and Voice and Accountability in 2002 (Institutions).

On the other hand, the negative impact of credit market liberalization on GDP growth rates of emerging market economies could be resulted with the increase in risk taking behaviors of these economies without establishing well-structured institutions after the liberalization process which at the end makes them more vulnerable for financial shocks. My findings are in line with this view. In general, the literature supporting the argument that more deregulated markets are more prone to risk taking behavior (see, for example, Diaz-Alejandro (1985), Hellmann, Murdock, and Stiglitz (1997) and Easterly, Islam, and Stiglitz (2000)). Recent studies also claim that liberalization which favors competition to foreign and private banks may indeed capture "unobserved" risk taking leading macroeconomic vulnerability.

In order to check this and test whether the addition of riskiness measure into my analysis will change my results or not, I add the Change in Country Credit Ratings (which is a summary score of a country risk measure) into the formula. By including that indicator, the direct impact of credit market liberalization on GDP growth rates of emerging market economies decreases. However, the negative impact of credit market liberalization still continues. Even though coefficients of credit market liberalization are now smaller than previous controls, in other words their negative impact is smaller now; the addition of this riskiness index does not lead to any significant change from the previous result. Hence, it can be definitely concluded that the sign and significance of credit market regulatory indices are robust to my findings.

Furthermore, country basis controls indicate that advanced economies have been affected more negatively from the liberalization policies compared to emerging market economies as well as emerging market economies with an above-median liberalization level (more

liberalized emerging market economies) during 2001 and 2006 have performed worse than the ones with less liberalization (less liberalized emerging market economies) during the pre-crisis period. Therefore, overall it can be concluded that credit market liberalization has negative impact on GDP growth performances of economies all over the world during the global crisis whereas its negative impact was more for advanced economies compared to emerging market economies. Even though emerging market economies have been affected less from credit market liberalization, when they are compared according to their liberalization levels in the pre-crisis period, it is seen that the ones which applied more liberalization during this period performed worse during the crisis.

These results suggest that the liberalization process of emerging market economies after the 1980 and 1990 crises makes them more vulnerable for the outside shocks. Deregulated markets become more vulnerable for global shocks. Tornell and Westermann (2005) assert that in the non-tradable sector, contract enforceability problems ("bad markets") and systemic bailout guarantees ("bad policy") lead to excessive credit risk taking and currency mismatch problems (dollar denominated debt and local currency revenues). Credit markets and the credit risk continuously account for the financial system in any economy and as a consequence, regulation of credit markets, i.e., lending and investments by financial institutions, insurance companies, pension funds, trust funds etc, is critical for determining the long term stability of the financial system.

On the other hand, regulations should be dynamic and need to evolve over time and can improve according to the changes in the market and in the economy as well. As being rapidly changing economies, emerging market economies require this kind of regulation-based and institutional developments. As Altug and Canova (2012) conclude that improving the institutional framework is more critical for emerging market economies rather than organizing macroeconomic indicators in order to deal with cyclical fluctuations. They also suggest that improved macroeconomic policies should be implemented together with measures that strengthen civil and political institutions and improve governance in the society as well as promoting interests of large groups in the society through effective organizations and preventing lobbying activities by financial institutions.

This thesis points to a specific direction for future research by showing the negative relationship between financial liberalization and resilience of emerging market economies towards cyclical shocks. Regulations in financial markets with some lobbying activities should be closely followed in order to prevent bad impacts of possible crises. A more comprehensive future research could be done to guide policymakers of emerging market economies for such policy decisions, notably for the ones related with the financial liberalization process. In this regard, the institutional framework, new financial liberalization approaches and policies with the required reforms should be discussed in details to fill the gaps in the literature.

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APPENDICES

Table 6: OLS Results on Credit Rating, Freedom and Regulatory Quality for 102 Countries

Table 6: Credit Rating, Freedom and Regulatory Quality					
Dependent Variable: Average Growth in 2008-2009					
Regressors	**(I)**	**(II)**	**(III)**	**(IV)**	**(V)**
Euromoney Ratings in March 2007	-0,07*	-0,01	-	-	-
	(0,04)	(0,04)			
Regulatory Quality, (KKM'02)	-	-2,30**	-2,05*	-0,55	-
		(0,83)	(1,20)	(0,91)	
Country Risk Premium, 2006	-	-	-0,44	-	-
			(0,33)		
Credit Market Liberalization (EFW' 06)	-	-	-1,43**	-1,09**	-1,14**
			(0,48)	(0,42)	(0,41)
Labor Market Liberalization (EFW' 06)	-	-	0,57*	0,50*	0,48*
			(0,30)	(0,27)	(0,27)
Business Liberalization (EFW' 06)	-	-	-0,01	-0,14	-0,24
			(0,45)	(0,41)	(0,38)
Average Growth 2002-2006	0,17	0,02	-0,29*	-0,15	-0,14
	(0,13)	(0,14)	(0,17)	(0,14)	(0,14)
(log) population in 2006	0,52	0,38	-0,02	0,33	0,32
	(0,51)	(0,49)	(0,53)	(0,47)	(0,46)
(log) GDP per capita in 2006	-0,17	0,54	-1,46	-1,79	-2,30**
	(1,54)	(1,51)	(1,41)	(1,20)	(0,85)
Intercept	1,69	-2,38	18,78**	13,44	16,23**
	(6,26)	(6,23)	(8,97)	(7,00)	(5,23)
Summary Statistics					
R^2	0,2172	0,2773	0,401	0,3756	0,3728
Adjusted R^2	0,1831	0,2376	0,3305	0,321	0,3263
Number of Observations	97	97	77	88	88

Figure 13: Cross-Country Correlations for 102 Countries

(Log Real GDP per capita, Euromoney Country Risk,

Regulatory Quality)
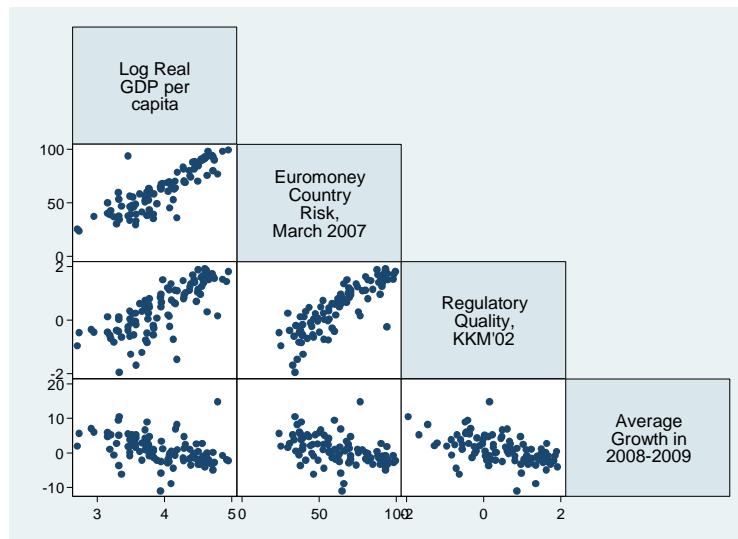
Figure 14: 2008-2009 Growth Against Key Indicators for 102 Countries

(Business Liberalization, Credit Market Liberalization, Labor Market

Liberalization)
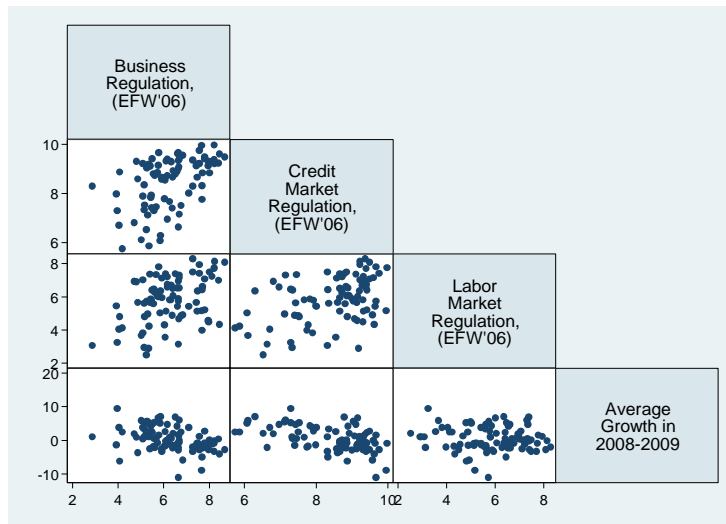
Table 7: OLS Results for 102 Countries

Table 7: OLS Results for 102 Countries					
Dependent Variable: Average Growth in 2008-2009					
			Regressors		
Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization, (EFW'06)	Business Liberalization, (EFW'06)	Control Variable	Number of Observations
Openness					
Trade Openness (IMP+EXP) % GDP, 2007	-1,13** (0,41)	0,46* (0,27)	-0,31 (0,38)	0,005 (0,01)	87
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	-1,16** (0,41)	0,51* (0,27)	-0,30 (0,38)	0,01 (0,05)	87
Financial Openness (Assets + Liabilities) / GDP, 2007	-1,15** (0,42)	0,51* (0,27)	-0,29 (0,38)	0,002 (0,01)	87
Freedom to Trade Internationally, 2006	-1,18** (0,41)	0,48* (0,27)	-0,32 (0,40)	0,31 (0,46)	88
Exports to US and EU/Total Exports, 2006	-1,12** (0,01)	0,46 (0,28)	-0,28 (0,39)	-0,01 (0,02)	85
Trade with US and EU/Total Trade, 2006	-1,15** (0,42)	0,37 (0,29)	-0,25 (0,39)	-0,04 (0,03)	85
Size of the Financial Sector					
Liquid Liabilities % GDP, 2005	-1,06** (0,41)	0,61** (0,28)	-0,27 (0,39)	0,37 (0,77)	81
Financial System Deposits % GDP, 2005	-0,93** (0,39)	0,47* (0,26)	-0,35 (0,36)	0,70 (0,72)	85
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	-1,04** (0,39)	0,48* (0,26)	-0,41 (0,38)	0,80 (1,01)	85
Banking System					
Central Bank Assets % GDP, 2005	-0,89 (0,43)	0,52* (0,28)	-0,39 (0,38)	1,25 (5,14)	78
Deposit Money Bank Assets % GDP, 2005	-0,99** (0,39)	0,50* (0,26)	-0,36 (0,37)	0,47 (0,92)	85
Net Interest Margin, 2005	-1,21** (0,42)	0,55** (0,28)	-0,52 (0,40)	-30,04* (15,82)	84
Bank Overhead Cost/Total Assets, 2005	-1,09** (0,41)	0,49* (0,27)	-0,48 (0,39)	-38,67** (17,24)	85
Bank Concentration, 2005	-1,13** (0,42)	0,53* (0,28)	-0,38 (0,42)	0,97 (2,07)	85
Stock Market					
Stock Market Capitalization % GDP, 2005	-1,21** (0,43)	0,51* (0,29)	-0,37 (0,38)	0,62 (0,62)	83
Change in Stock Market Capitalization 2003-2006	-1,20** (0,45)	0,60** (0,28)	-0,30 (0,38)	-0,17 (0,44)	81
Stock Market Total Value Traded % GDP, 2005	-1,29** (0,43)	0,57** (0,28)	-0,40 (0,40)	0,78 (0,92)	83
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	-1,25** (0,43)	0,61** (0,28)	-0,29 (0,40)	-0,04 (1,03)	83

Table 7 (cont'd) : OLS Results for 102 Countries					
Dependent Variable: Average Growth in 2008-2009					
			Regressors		
Control Variables	**Credit Market Liberalization, (EFW'06)**	**Labor Market Liberalization, (EFW'06)**	**Business Liberalization, (EFW'06)**	**Control Variable**	**Number of Observations**
Macroeconomics and Banks					
Current Account Balance (% of GDP), 2006	-0,92**	0,39	-0,20	0,09**	86
	(0,40)	(0,27)	(0,36)	(0,03)	
Gross Savings (% of GDP), 2006	-0,95**	0,41	-0,22	0,11**	86
	(0,40)	(0,27)	(0,36)	(0,03)	
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	-1,25**	0,62**	-0,11	0,14	71
	(0,47)	(0,31)	(0,41)	(0,12)	
External Debt Stocks (% of GNI), 2004	-0,99*	0,32	0,12	0,01	46
	(0,57)	(0,45)	(0,63)	(0,02)	
Growth in Domestic Bank Credit, 2000-2006	-1,07**	0,50*	-0,12	-0,02**	88
	(0,40)	(0,26)	(0,37)	(0,01)	
Domestic Credit to Private Sector (% of GDP), 2006	-1,15**	0,48*	-0,25	0,001	88
	(0,41)	(0,27)	(0,39)	(0,01)	
Domestic Credit Provided by Banking Sector (% of GDP), 2006	-1,13**	0,49*	-0,22	-0,002	88
	(0,41)	(0,27)	(0,38)	(0,007)	
Bank Capital to Assets Ratio (%) , 2006	-1,33**	0,73**	-0,26	-0,11	71
	(0,46)	(0,31)	(0,43)	(0,12)	
Net Financial Assets to GDP Ratio, 2004	-1,03**	0,42	-0,26	1,02*	87
	(0,41)	(0,27)	(0,37)	(0,55)	
Institutions					
Polity, 2006	-0,95**	0,40	-0,22	-0,20**	83
	(0,41)	(0,27)	(0,39)	(0,07)	
Constraints on Executive, 2006	-1,05**	0,41	-0,16	-0,64**	83
	(0,41)	(0,27)	(0,39)	(0,21)	
Size of Government, 2006	-1,14**	0,48*	-0,24	-0,01	88
	(0,41)	(0,28)	(0,38)	(0,26)	
Legal Structure and Security of Property Rights, 2006	-1,16**	0,47*	-0,36	0,21	88
	(0,41)	(0,27)	(0,45)	(0,46)	
Access to Sound Money, 2006	-1,19**	0,49*	-0,31	0,26	88
	(0,41)	(0,27)	(0,39)	(0,31)	
Voice and Accountability, (KKM'02)	-1,02**	0,51*	-0,05	-1,46**	88
	(0,40)	(0,26)	(0,37)	(0,62)	
Political Stability, (KKM'02)	-1,11**	0,52*	-0,22	-0,37	88
	(0,41)	(0,28)	(0,38)	(0,57)	
Government Effectiveness,(KKM'02)	-1,18**	0,44	-0,58	1,16	88
	(0,40)	(0,27)	(0,44)	(0,82)	
Rule of Law, (KKM'02)	-1,09**	0,41	-0,60	1,27	88
	(0,40)	(0,27)	(0,44)	(0,82)	
Control of Corruption, (KKM'02)	-1,08**	0,39*	-0,85*	1,82**	88
	(0,40)	(0,27)	(0,45)	(0,78)	

Figure 15: 2008-2009 Growth Against Key Indicators for 102 Countries
(Current Account Balance, Growth in Domestic Bank Credit, Net Interest Margin,
Bank Overhead Cost/Total Assets, Net Financial Assets to GDP Ratio, Gross
Savings to GDP Ratio)
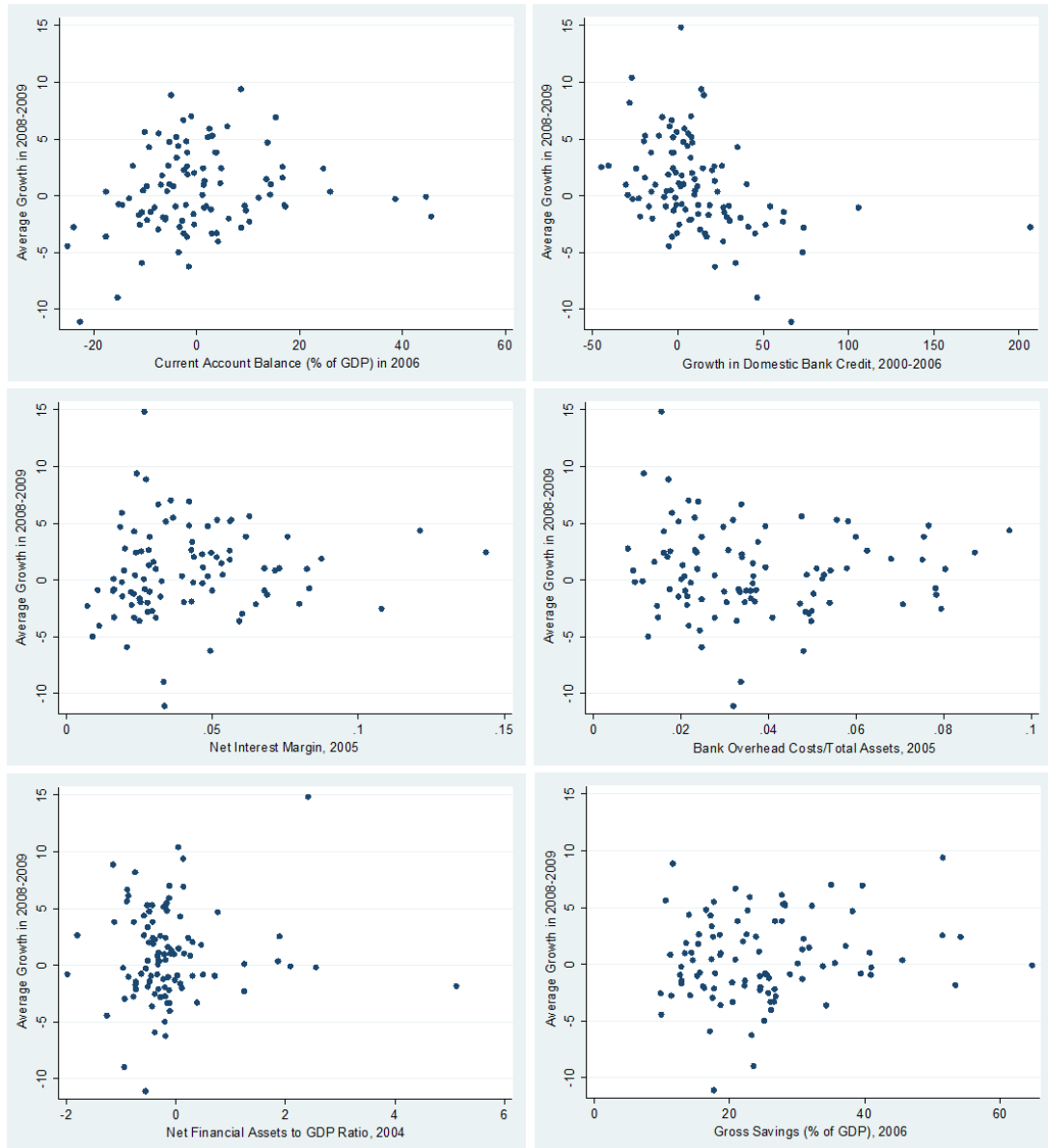
Figure 16: 2008-2009 Growth Against Key Indicators for 102 Countries

(Polity Index, Constraints on Executives)
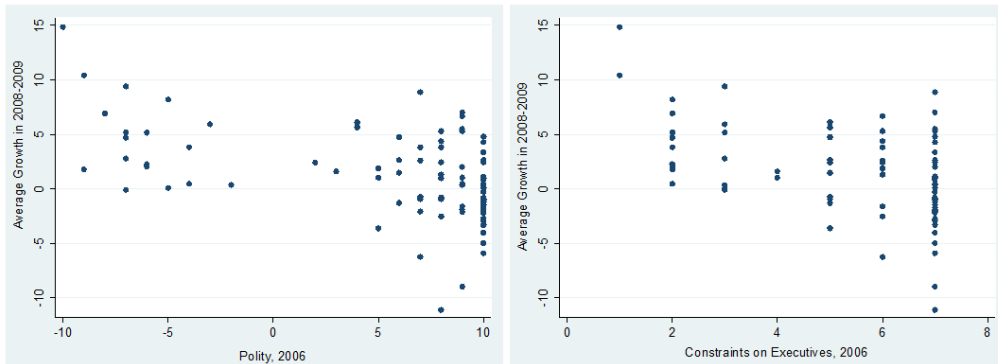
Figure 17: 2008-2009 Growth Against Worldwide Governance Indicators for 102 Countries
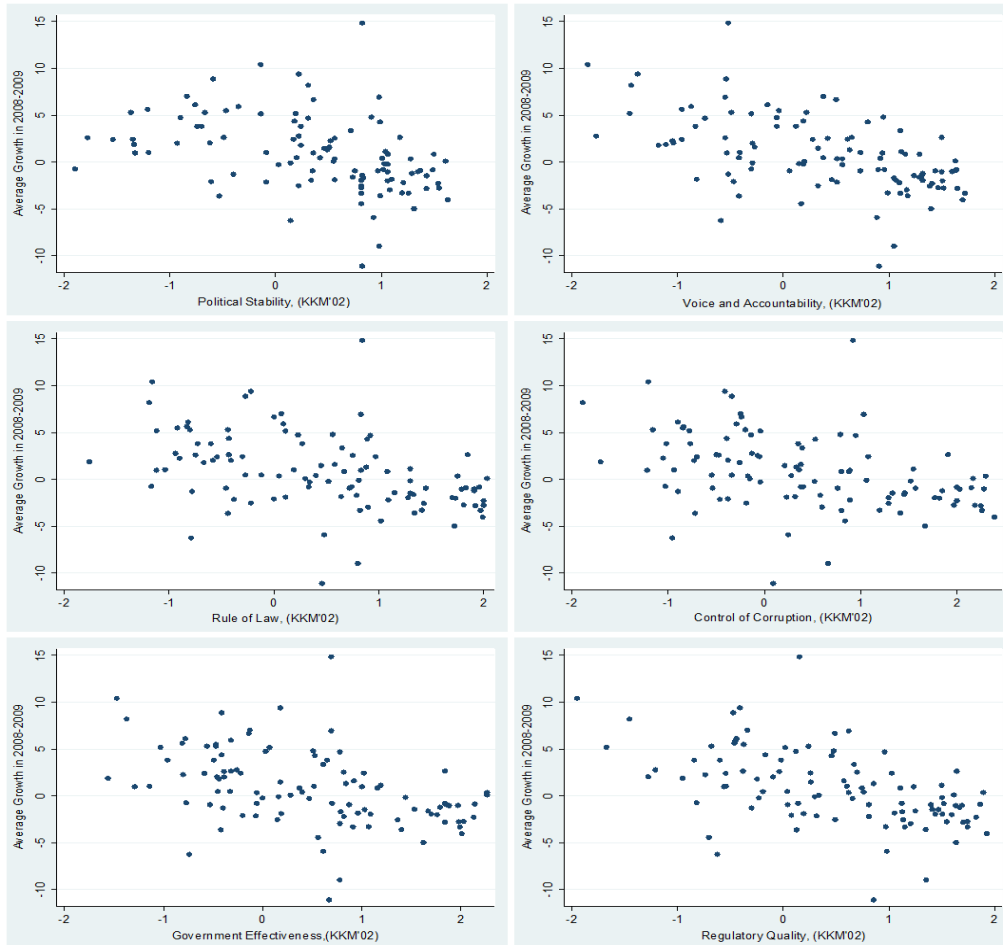
Table 8: OLS Results for the Multiplication of the Indices of Labor Market Liberalization and Business Liberalization for 51 Emerging Market Economies

Table 8: OLS Results for the Multiplication of the Indices of Labor Market Liberalization and Business Liberalization for 51 Emerging Market Economies				
Dependent Variable: Average Growth in 2008-2009				
			Regressors	
Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization * Business Liberalization, (EFW'06)	Control Variable	Number of Observations
Openness				
Trade Openness (IMP+EXP) % GDP, 2007	-1,73** (0,61)	0,10 (0,06)	-0,0001 (0,009)	48
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	-1,82** (0,61)	0,11* (0,06)	-0,24 (0,38)	47
Financial Openness (Assets + Liabilities) / GDP, 2007	-1,63** (0,60)	0,07 (0,05)	0,17 (0,12)	47
Freedom to Trade Internationally, 2006	-1,73** (0,61)	0,10 (0,07)	-0,02 (0,85)	48
Exports to US and EU/Total Exports, 2006	-1,75** (0,63)	0,10* (0,06)	0,002 (0,03)	47
Trade with US and EU/Total Trade, 2006	-1,74** (0,62)	0,09 (0,06)	-0,06 (0,05)	47
Size of the Financial Sector				
Liquid Liabilities % GDP, 2005	-1,68** (0,59)	0,11* (0,06)	-0,65 (1,45)	45
Financial System Deposits % GDP, 2005	-1,58** (0,58)	0,10* (0,06)	-0,24 (1,51)	46
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	-1,54** (0,57)	0,10* (0,05)	-0,31 (1,79)	46
Banking System				
Central Bank Assets % GDP, 2005	-1,26** (0,62)	0,10* (0,05)	-0,28 (7,57)	42
Deposit Money Bank Assets % GDP, 2005	-1,63** (0,56)	0,13** (0,06)	-1,80 (1,87)	46
Net Interest Margin, 2005	-1,79** (0,59)	0,07 (0,05)	-30,57 (19,93)	47
Bank Overhead Cost/Total Assets, 2005	-1,63** (0,60)	0,07 (0,05)	-36,48 (24,60)	47
Bank Concentration, 2005	-1,73** (0,65)	0,09* (0,05)	0,62 (3,21)	47
Stock Market				
Stock Market Capitalization % GDP, 2005	-1,77** (0,66)	0,09 (0,06)	0,19 (0,94)	45
Change in Stock Market Capitalization 2003-2006	-1,62** (0,66)	0,10* (0,05)	-0,86 (0,66)	45
Stock Market Total Value Traded % GDP, 2005	-1,76** (0,65)	0,08 (0,06)	1,27 (1,86)	45
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	-1,79** (0,66)	0,10* (0,05)	0,22 (1,48)	45

Table 8: OLS Results for the Multiplication of the Indices of Labor Market Liberalization and Business Liberalization for 51 Emerging Market Economies

Dependent Variable: Average Growth in 2008-2009

Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization * Business Liberalization, (EFW'06)	Control Variable	Number of Observations
Macroeconomics and Banks				
Current Account Balance (% of GDP), 2006	-1,16** (0,56)	0,06 (0,05)	0,15** (0,04)	47
Gross Savings (% of GDP), 2006	-1,29** (0,57)	0,07 (0,05)	0,16** (0,05)	47
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	-1,77** (0,63)	0,09* (0,05)	0,17 (0,14)	43
External Debt Stocks (% of GNI), 2004	-0,99* (0,58)	0,06 (0,05)	-0,05* (0,03)	33
Growth in Domestic Bank Credit, 2000-2006	-1,24** (0,59)	0,06 (0,05)	-0,07** (0,03)	48
Domestic Credit to Private Sector (% of GDP), 2006	-1,69** (0,63)	0,10* (0,06)	-0,004 (0,02)	48
Domestic Credit Provided by Banking Sector (% of GDP), 2006	-1,71** (0,62)	0,10* (0,05)	-0,002 (0,01)	48
Bank Capital to Assets Ratio (%) , 2006	-1,95** (0,65)	0,10* (0,05)	-0,09 (0,17)	40
Net Financial Assets to GDP Ratio, 2004	-1,31** (0,60)	0,05 (0,05)	2,01** (0,86)	47
Institutions				
Polity, 2006	-1,38** (0,58)	0,08 (0,05)	-0,24** (0,08)	46
Constraints on Executive, 2006	-1,52** (0,58)	0,10* (0,05)	-0,76** (0,26)	46
Size of Government, 2006	-1,79** (0,62)	0,11* (0,06)	-0,25 (0,43)	48
Legal Structure and Security of Property Rights, 2006	-1,89** (0,60)	0,17** (0,07)	-1,18 (0,76)	48
Access to Sound Money, 2006	-1,71** (0,60)	0,08 (0,05)	0,47 (0,41)	48
Voice and Accountability, (KKM'02)	-1,42** (0,56)	0,13** (0,05)	-2,36** (0,76)	48
Political Stability, (KKM'02)	-1,59** (0,61)	0,12** (0,05)	-0,91 (0,79)	48
Government Effectiveness,(KKM'02)	-1,73** (0,61)	0,11 (0,07)	-0,33 (1,25)	48
Rule of Law, (KKM'02)	-1,74** (0,62)	0,10 (0,07)	-0,11 (1,29)	48
Control of Corruption, (KKM'02)	-1,58** (0,64)	0,06 (0,08)	0,95 (1,35)	48

Table 9: OLS Results for 51 Emerging Market Economies including the Change in Country Credit Ratings

Table 9: OLS Results for Emerging Market Economies including the Change in Country Credit Ratings						
Dependent Variable: Average Growth in 2008-2009						
			Regressors			
Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization, (EFW'06)	Business Liberalization, (EFW'06)	Change in Credit Ratings, 03/2008-03/2009	Control Variable	Number of Observations
Openness						
Trade Openness (IMP+EXP) % GDP, 2007	-1,35** (0,64)	0,67 (0,49)	-0,35 (0,56)	0,34** (0,15)	0,01 (0,01)	47
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	-1,39** (0,64)	0,82* (0,48)	-0,34 (0,54)	0,35** (0,15)	-0,02 (0,36)	46
Financial Openness (Assets + Liabilities) / GDP, 2007	-1,21* (0,63)	0,59 (0,48)	-0,35 (0,51)	0,36** (0,15)	0,17 (0,12)	46
Freedom to Trade Internationally, 2006	-1,38** (0,64)	0,65 (0,50)	-0,40 (0,60)	0,33** (0,15)	0,53 (0,81)	47
Exports to US and EU/Total Exports, 2006	-1,27* (0,69)	0,70 (0,52)	-0,25 (0,55)	0,35** (0,16)	-0,02 (0,03)	46
Trade with US and EU/Total Trade, 2006	-1,37** (0,66)	0,74 (0,50)	-0,21 (0,53)	0,32** (0,15)	-0,06 (0,05)	46
Size of the Financial Sector						
Liquid Liabilities % GDP, 2005	-1,47** (0,61)	0,95** (0,45)	-0,19* (0,54)	0,20 (0,15)	-0,11 (1,39)	44
Financial System Deposits % GDP, 2005	-1,40** (0,61)	0,90* (0,45)	-0,25 (0,55)	0,18 (0,15)	0,37 (1,45)	45
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	-1,52** (0,60)	0,89** (0,43)	-0,45 (0,60)	0,19 (0,15)	1,46 (1,91)	45
Banking System						
Central Bank Assets % GDP, 2005	-1,09 (0,65)	0,90* (0,45)	-0,23 (0,50)	0,15 (0,15)	1,16 (7,58)	41
Deposit Money Bank Assets % GDP, 2005	-1,43** (0,60)	0,96** (0,44)	-0,11 (0,60)	0,18 (0,15)	-0,50 (1,97)	45
Net Interest Margin, 2005	-1,43** (0,59)	0,76* (0,43)	-0,69 (0,51)	0,37** (0,14)	-43,05** (18,53)	46
Bank Overhead Cost/Total Assets, 2005	-1,30** (0,60)	0,82* (0,44)	-0,81 (0,54)	0,32** (0,14)	-49,65** (23,46)	46
Bank Concentration, 2005	-1,25* (0,66)	0,90* (0,47)	-0,53 (0,58)	0,33** (0,15)	2,48 (3,40)	46
Stock Market						
Stock Market Capitalization % GDP, 2005	-1,40** (0,69)	0,66 (0,51)	-0,27 (0,57)	0,31* (0,15)	0,49 (0,87)	44
Change in Stock Market Capitalization 2003-2006	-1,37* (0,68)	0,81* (0,47)	-0,21 (0,53)	0,27* (0,16)	-0,77 (0,67)	44
Stock Market Total Value Traded % GDP, 2005	-1,36* (0,67)	0,65 (0,47)	-0,54 (0,59)	0,33** (0,15)	2,59 (1,83)	44
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	-1,39* (0,69)	0,79 (0,48)	-0,28 (0,57)	0,32** (0,16)	0,95 (1,54)	44

Table 9 (cont'd): OLS Results for Emerging Market Economies including the Change in Country Credit Ratings						
Dependent Variable: Average Growth in 2008-2009						
				Regressors		
Control Variables	Credit Market Liberalization, (EFW'06)	Labor Market Liberalization, (EFW'06)	Business Liberalization, (EFW'06)	Change in Credit Ratings, 03/2008-03/2009	Control Variable	Number of Observations
Macroeconomics and Banks						
Current Account Balance (% of GDP), 2006	-0,91	0,48	-0,01	0,24*	0,14**	46
	(0,60)	(0,45)	(0,49)	(0,14)	(0,04)	
Gross Savings (% of GDP), 2006	-0,99	0,50	-0,005	0,26*	0,14**	46
	(0,60)	(0,45)	(0,49)	(0,14)	(0,05)	
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	-1,32*	0,62	-0,16	0,32**	0,18	42
	(0,65)	(0,48)	(0,55)	(0,15)	(0,14)	
External Debt Stocks (% of GNI), 2004	-0,81	0,24	-0,17	0,27	-0,0003	32
	(0,67)	(0,51)	(0,62)	(0,19)	(0,03)	
Domestic Credit to Private Sector (% of GDP), 2006	-1,44**	0,74	-0,33	0,33**	0,01	47
	(0,67)	(0,47)	(0,58)	(0,15)	(0,02)	
Domestic Credit Provided by Banking Sector (% of GDP), 2006	-1,40**	0,76	-0,27	0,32**	0,004	47
	(0,66)	(0,47)	(0,56)	(0,15)	(0,01)	
Growth in Domestic Bank Credit, 2000-2006	-1,00	0,48	-1,19	0,27*	-0,06**	47
	(0,63)	(0,46)	(0,50)	(0,15)	(0,03)	
Bank Capital to Assets Ratio (%), 2006	-1,63**	0,81	-0,39	0,36**	-0,20	39
	(0,67)	(0,51)	(0,61)	(0,15)	(0,17)	
Net Financial Assets to GDP ratio, 2004	-1,03	0,55	-0,38	0,31**	1,75**	46
	(0,62)	(0,45)	(0,49)	(0,14)	(0,80)	
Institutions						
Polity, 2006	-1,08*	0,75*	-0,37	0,30**	-0,22**	45
	(0,59)	(0,43)	(0,49)	(0,14)	(0,08)	
Constraints on Executive, 2006	-1,24**	0,81*	-0,27	0,30**	-0,70**	45
	(0,59)	(0,43)	(0,49)	(0,14)	(0,25)	
Size of Government, 2006	-1,37**	0,77	-0,19	0,32**	-0,09	47
	(0,65)	(0,48)	(0,55)	(0,15)	(0,41)	
Legal Structure and Security of Property Rights, 2006	-1,40**	0,85*	0,08	0,32**	-0,49	47
	(0,65)	(0,51)	(0,76)	(0,15)	(0,91)	
Access to Sound Money, 2006	-1,39**	0,74	-0,29	0,29**	0,31	47
	(0,64)	(0,47)	(0,54)	(0,16)	(0,41)	
Voice and Accountability, (KKM'02)	-1,12*	0,99**	0,002	0,26*	-2,23**	47
	(0,59)	(0,44)	(0,49)	(0,14)	(0,78)	
Political Stability, (KKM'02)	-1,26*	0,91*	-0,16	0,31*	-0,70	47
	(0,65)	(0,50)	(0,53)	(0,15)	(0,81)	
Government Effectiveness, (KKM'02)	-1,38**	0,70	-0,39	0,32**	0,55	47
	(0,65)	(0,49)	(0,68)	(0,15)	(1,33)	
Rule of Law, (KKM'02)	-1,32**	0,65	-0,43	0,32**	0,71	47
	(0,64)	(0,51)	(0,66)	(0,15)	(1,34)	
Control of Corruption, (KKM'02)	-1,23*	0,51	-0,72	0,29*	1,65	47
	(0,64)	(0,51)	(0,67)	(0,15)	(1,38)	

Table 10: List of Countries

	Country	Code	GDP Growth Average (2008-2009)	Regulatory Quality, 2002	Business Liberalization, 2006	Credit Market Liberalization, 2006	Labor Market Liberalization, 2006	Institutional Investor Credit Rating, March 2009	Institutional Investor Credit Rating, March 2008
1	Albania"	ALB	5,50	−0,373	5,31	7,12	4,98	33,5	32,8
2	Algeria"	DZA	2,40	−0,544	5,36	5,86	4,24	53,3	54,7
3	Antigua and Barbuda	ATG	−4,44	−0,704					
4	Argentina"	ARG	3,80	−0,841	4,05	6,70	4,06	28,3	41,90
5	Armenia"	ARM	−3,62	0,128	4,86	8,59	5,65	39	35,9
6	Australia"	AUS	2,64	1,641	7,79	9,50	7,06	86,7	91,2
7	Austria"	AUT	−1,21	1,671	7,96	9,15	4,57	90	94,6
8	Bahamas, The	BHS	−3,59	1,350				69,2	69,4
9	Bahrain"	BHR	4,70	0,961	5,40	9,11	7,35	68,2	70,3
10	Barbados"	BRB	−2,56	1,136	5,91	8,57	7,12	61,5	60,1
11	Belarus"	BLR	5,21	−1,674				24,7	25,7
12	Belgium"	BEL	−0,92	1,397	7,47	8,65	5,14	88,1	91,9
13	Bermuda	BMU	−1,95	1,440					
14	Botswana"	BWA	−0,94	0,812	6,17	9,41	6,76	66,9	66,8
15	Brazil"	BRA	2,42	0,260	4,20	5,74	4,13	62,5	60,6
16	Brunei Darussalam	BRN	−1,85	1,053					
17	Bulgaria"	BGR	0,35	0,620	5,09	9,22	7,03	54,1	60,7
18	Canada"	CAN	−1,04	1,632	8,12	9,32	7,22	91,6	94,6
19	Chile"	CHL	1,13	1,502	7,56	9,23	7,94	76,7	77,4
20	China"	CHN	9,40	−0,411	3,96	7,30	3,24	74,1	76,5
21	Colombia"	COL	2,60	−0,036	6,07	8,54	3,55	55,3	54,7
22	Costa Rica"	CRI	0,86	0,745	6,27	7,67	5,82	52,1	52,3
23	Croatia"	HRV	−1,91	0,192	5,55	8,80	5,57	57,6	61,3
24	Cuba	CUB	2,78	−1,210				14,9	16,2
25	Cyprus"	CYP	0,98	1,236	5,33	9,19	2,90	75	74,2
26	Czech Republic"	CZE	−0,80	1,121	5,72	8,86	6,07	74,7	76,4
27	Denmark"	DNK	−3,31	1,744	8,23	9,39	7,71	92,1	94,7
28	Dominican Republic"	DOM	4,35	−0,168	5,43	7,83	5,85	34,7	36,1
29	Ecuador"	ECU	3,80	−0,596	5,09	7,90	3,82	25,6	30,9
30	Egypt"	EGY	5,92	−0,452	5,03	6,10	3,67	49,9	50,7
31	El Salvador	SLV	−0,93	0,044	6,62	9,64	5,43	46	46,6
32	Equatorial Guinea	GNQ	8,21	−1,453				28,2	25,8
33	Estonia"	EST	−8,96	1,354	7,67	9,95	5,16	61	70,4
34	Finland"	FIN	−4,03	1,928	8,45	9,62	4,34	92,3	94,9
35	France"	FRA	−1,61	1,251	7,42	9,13	5,65	91,5	94,1
36	Gabon	GAB	0,46	−0,191	5,66	7,45	7,33	34,4	33,2
37	Georgia	GEO	−0,73	−0,820	6,69	9,40	6,56	30,8	32
38	Germany"	DEU	−2,02	1,595	7,68	7,75	3,99	92,6	94,8
39	Greece"	GRC	−1,70	1,127	6,04	7,78	4,32	76,7	81,3
40	Guyana	GUY	2,65	−0,382	5,45	7,93	5,79	29,2	25,3
41	Haiti	HTI	1,86	−0,953	4,72	6,81	6,95	18,1	15,4
42	Hong Kong"	HKG	−0,18	1,503	8,24	9,22	8,15	81	84,1
43	Hungary"	HUN	−2,95	1,208	6,65	9,01	5,89	59,2	66,8
44	Iceland"	ISL	−2,77	1,549	8,69	9,50	8,10	48,8	81,3
45	India"	IND	7,02	−0,340	5,86	6,29	6,37	59,9	62,7
46	Indonesia"	IDN	5,32	−0,682	5,16	7,52	4,81	47,5	48,2
47	Iran"	IRN	2,05	−1,279	5,24	6,52	2,52	33,2	35,7
48	Ireland"	IRL	−4,98	1,637	7,68	8,33	6,45	85,8	93,6
49	Israel"	ISR	2,43	1,028	6,77	7,50	4,88	67,8	69,2
50	Italy"	ITA	−3,33	1,152	5,91	8,65	5,95	79,4	84,1
51	Jamaica	JAM	−2,15	0,316	5,60	8,72	6,29	32,8	33,6
52	Japan"	JPN	−3,28	0,971	7,27	8,31	7,50	85,7	91,4
53	Kazakhstan	KAZ	2,25	−0,737	5,49	9,42	6,43	51,9	60,8
54	Korea, Rep."	KOR	1,31	0,858	6,66	9,08	4,68	72,6	79,9
55	Kuwait"	KWT	−0,09	0,300	6,69	9,59	7,15	74,4	77,7
56	Kyrgyz Republic	KGZ	5,64	−0,462	5,26	9,03	5,74	23,4	26,1
57	Latvia"	LVA	−11,10	0,858	6,66	9,67	5,72	55,2	63,5
58	Lebanon"	LBN	8,89	−0,473				26,1	28,9
59	Lithuania"	LTU	−5,91	0,980	6,84	9,57	4,93	59,8	67,7
60	Luxembourg"	LUX	−2,27	1,828	7,69	8,83	6,63	93,7	96,3
61	Macao SAR, China	MAC	2,53	0,700					
62	Macedonia"	MKD	2,01	−0,098	6,43	8,93	6,06	43,3	43,3
63	Malaysia"	MYS	1,59	0,576	6,66	9,36	6,96	70,3	72,9
64	Malta"	MLT	0,86	1,110	4,82	9,32	6,91	76,5	78
65	Mauritius"	MUS	4,27	0,457	6,60	8,88	6,55	55,4	56,3
66	Mexico"	MEX	−2,52	0,493	5,39	9,13	5,65	65,7	69,3
67	Morocco"	MAR	5,17	0,022	5,83	6,07	5,02	53,7	55,1
68	Namibia	NAM	1,47	0,261	5,78	9,67	7,79	49,7	50,8
69	Netherlands"	NLD	−0,87	1,866	7,48	9,21	6,37	92,5	95
70	New Zealand"	NZL	−1,01	1,691	8,23	9,98	7,75	82,8	88,2
71	Norway"	NOR	−0,82	1,520	7,79	9,42	5,22	93,8	95,9
72	Oman"	OMN	6,95	0,622	6,52	8,78	7,39	69,8	70,5
73	Panama	PAN	6,66	0,490	5,76	9,16	6,02	53,4	57,1
74	Papua New Guinea	PNG	6,10	−0,442	6,70	7,15	7,32	32,6	32,1
75	Paraguay	PRY	0,99	−0,559	5,14	7,33	2,95	31,2	29,7
76	Peru"	PER	5,32	0,239	5,57	7,29	6,47	58,8	57,7
77	Poland"	POL	3,38	0,674	5,14	8,35	5,61	71,5	73
78	Portugal"	PRT	−1,46	1,473	6,37	7,40	4,89	80,5	84,8
79	Qatar"	QAT	14,85	0,153				76,7	78,2
80	Romania"	ROM	0,46	0,042	5,57	7,34	6,43	52,5	58,4
81	Russia"	RUS	−1,29	−0,299	3,93	7,99	5,44	64,6	69,4
82	Seychelles	SYC	−0,24	−0,229				18,1	27,5
83	Singapore"	SGP	0,36	1,894	8,42	9,24	6,99	89,3	93,1
84	Slovak Republic"	SVK	0,41	0,762	6,34	9,29	6,69	73,6	73
85	Slovenia"	SVN	−2,21	0,812	6,41	8,65	6,53	81,5	81
86	South Africa"	ZAF	1,04	0,604	6,33	9,32	5,81	61,1	65,8
87	Spain"	ESP	−1,43	1,411	6,12	9,33	5,13	85,4	89,6
88	Sri Lanka"	LKA	4,74	0,121	5,48	7,42	5,62	30,8	32,7
89	St. Kitts and Nevis	KNA	−0,78	0,142					
90	Swaziland	SWZ	1,78	−0,247				26,5	29,1
91	Sweden"	SWE	−2,82	1,704	7,97	9,31	4,51	91,3	94,8
92	Switzerland"	CHE	0,11	1,616	8,01	8,84	7,50	94	96,4
93	Thailand"	THA	0,08	0,340	6,17	8,72	7,20	59,6	63,1
94	Trinidad and Tobago	TTO	−0,30	0,658	6,10	8,66	7,38	65,2	66,6
95	Tunisia"	TUN	3,81	−0,020	7,10	8,02	5,42	58,7	61,3
96	Turkey"	TUR	−2,08	0,078	6,66	6,64	3,13	49	52
97	Turkmenistan	TKM	10,40	−1,950				26	28,3
98	Ukraine"	UKR	−6,25	−0,622	4,07	8,87	4,82	35,6	47,7
99	United Kingdom"	GBR	−2,74	1,746	7,57	9,76	7,42	88,5	94
100	United States"	USA	−1,94	1,509	7,27	9,37	8,29	88	93,8
101	Uruguay	URY	4,80	0,478	6,17	6,96	6,61	46,4	48,8
102	Venezuela"	VEN	1,04	−0,541	2,89	8,31	3,06	40,7	43,1

Table 11: Description of the Database for 51 Emerging Market Economies

Table 11
Description of the Database

Control Variable	Sample	Mean	Std. Dev.	Min	Max	Correl (Gr. 08-09, Control Variable)	Correl (C.M. Lib., Control Variable)
Growth in 2008-2009	51	1,62	4,55	-11,10	14,85	1,00	-0,10
Average Growth in 2002-2006	51	5,73	2,22	1,75	12,95	-0,06	-0,08
(log) GDP per capita in 2006	51	3,80	0,40	2,91	4,79	-0,18	0,41
(log) Population in 2006	51	7,14	0,78	5,43	9,12	0,20	-0,48
Regulatory Quality, (KKM'02)	51	0,26	0,74	-1,67	1,89	-0,40	0,65
Euromoney Ratings, March 2007	50	56,87	13,72	32,93	87,57	-0,23	0,59
Credit Market Liberalization, (EFW'06)	48	8,20	1,14	5,74	9,95	-0,55	1,00
Labor Market Liberalizaton, (EFW'06)	48	5,57	1,35	2,52	8,15	-0,10	0,55
Business Liberalization, (EFW'06)	48	5,85	1,12	2,89	8,42	-0,25	0,46
Current Account Balance (% of GDP), 2006	49	0,85	11,60	-22,68	44,62	0,30	-0,07
Gross Savings (% of GDP), 2006	49	26,50	11,28	9,80	64,72	-0,10	-0,04
Trade Openness (IMP+EXP) % GDP, 2007	51	104,27	75,56	25,83	437,39	-0,21	0,49
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	50	0,72	1,50	0,03	10,57	-0,12	0,24
Financial Openness (Assets + Liabilities) / GDP, 2007	50	2,66	4,58	0,55	23,91	-0,01	0,29
Freedom to Trade Internationally, 2006	48	7,05	0,88	5,26	9,50	-0,17	0,44
Exports to US and EU/Total Exports, 2006	50	28,65	17,73	3,97	88,88	-0,06	-0,10
Trade with US and EU/Total Trade, 2006	50	15,87	9,44	5,01	42,25	-0,21	0,07
Liquid Liabilities % GDP, 2005	46	0,56	0,40	0,15	2,52	-0,005	0,15
Financial System Deposits % GDP, 2005	47	0,50	0,38	0,09	2,42	-0,01	0,18
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	47	0,46	0,34	0,07	1,42	-0,15	0,43
Growth in Domestic Bank Credit, 2000-2006	51	7,75	19,21	-29,32	66,42	-0,44	0,33
Central Bank Assets % GDP, 2005	43	0,04	0,07	0,00	0,42	0,25	-0,49
Deposit Money Bank Assets % GDP, 2005	47	0,55	0,31	0,09	1,61	-0,10	0,27
Net Interest Margin, 2005	50	0,05	0,03	0,02	0,14	-0,08	-0,28
Bank Overhead Cost/Total Assets, 2005	50	0,04	0,02	0,01	0,10	-0,17	-0,13
Bank Concentration, 2005	50	0,63	0,18	0,18	0,98	0,00	0,07
Stock Market Capitalization % GDP, 2005	47	0,60	0,74	0,01	3,86	0,07	0,25
Change in Stock Market Capitalization 2003-2006	46	0,80	0,86	-1,00	3,26	0,06	-0,08
Stock Market Total Value Traded % GDP, 2005	47	0,25	0,39	0,00	1,65	0,07	0,19
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	47	0,38	0,42	0,02	2,09	0,06	-0,08
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	45	4,51	4,27	0,20	19,30	0,47	-0,35
External Debt Stocks (% of GNI), 2004	35	42,90	24,64	12,62	112,60	-0,14	0,18
Domestic Credit to Private Sector (% of GDP), 2006	51	52,26	33,32	8,84	157,14	-0,17	0,43
Domestic Credit Provided by Banking Sector (% of GDP), 2006	51	63,15	41,36	3,93	192,93	0,03	0,24
Bank Capital to Assets Ratio (%) , 2006	42	9,89	3,52	4,90	22,90	-0,15	0,05
Net Financial Assets to GDP Ratio, 2004	50	-0,10	0,78	-1,15	2,56	0,21	0,15
Polity, 2006	49	4,59	6,41	-10,00	10,00	-0,43	0,15
Constraints on Executive, 2006	49	5,41	1,91	1,00	7,00	-0,42	0,14
Size of Government, 2006	48	6,40	1,25	4,21	9,25	-0,05	0,02
Legal Structure and Security of Property Rights, 2006	48	5,92	1,11	3,08	8,43	-0,32	0,46
Access to Sound Money, 2006	48	7,99	1,38	5,06	9,57	-0,10	0,36
Voice and Accountability, (KKM'02)	51	-0,004	0,81	-1,77	1,14	-0,48	0,37
Political Stability, (KKM'02)	51	-0,106	0,86	-1,90	1,21	-0,35	0,57
Government Effectiveness, (KKM'02)	51	0,238	0,73	-1,16	2,14	-0,33	0,56
Rule of Law, (KKM'02)	51	0,060	0,76	-1,38	1,68	-0,24	0,51
Control of Corruption, (KKM'02)	51	0,048	0,71	-0,96	2,22	-0,24	0,49

Table 12: Description of the Database for 102 Countries

Table 12 Description of the Database							
Variables	Sample	Mean	Std. Dev.	Min	Max	Correl (Gr. 08-09, Control Variable)	Correl (C.M. Lib., Control Variable)
Growth in 2008-2009	102	0,81	4,02	-11,10	14,85	1,00	-0,50
Average Growth in 2002-2006	102	4,86	3,07	0,13	16,49	0,27	0,04
(log) GDP per capita in 2006	102	3,97	0,53	2,71	4,95	-0,41	0,51
(log) Population in 2006	102	6,86	0,87	4,70	9,12	0,14	-0,38
Regulatory Quality, (KKM'02)	102	0,48	0,92	-1,95	1,93	-0,53	0,57
Euromoney Ratings, March 2007	97	63,02	20,91	24,09	99,55	-0,44	0,48
Credit Market Liberalization, (EFW'06)	88	8,47	1,06	5,74	9,98	-0,50	1,00
Labor Market Liberalization, (EFW'06)	88	5,84	1,39	2,52	8,29	-0,09	0,44
Business Liberalization, (EFW'06)	88	6,27	1,21	2,89	8,69	-0,39	0,49
Current Account Balance (% of GDP), 2006	95	0,27	12,59	-25,10	45,59	0,19	-0,05
Gross Savings (% of GDP), 2006	95	24,67	10,93	9,80	64,72	0,15	-0,04
Trade Openness (IMP+EXP) % GDP, 2007	101	101,44	63,19	25,83	437,39	-0,09	0,30
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	98	1,40	6,01	0,03	59,17	-0,11	0,08
Financial Openness (Assets + Liabilities) / GDP, 2007	98	6,01	24,70	0,55	243,80	-0,11	0,09
Freedom to Trade Internationally, 2006	89	7,10	0,82	5,05	9,50	-0,15	0,37
Exports to US and EU/Total Exports, 2006	97	32,23	19,25	2,18	88,88	-0,17	-0,03
Trade with US and EU/Total Trade, 2006	97	18,85	13,03	2,62	64,51	-0,35	0,18
Liquid Liabilities % GDP, 2005	88	0,68	0,50	0,15	3,29	-0,17	0,16
Financial System Deposits % GDP, 2005	92	0,64	0,51	0,08	3,25	-0,17	0,20
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	92	0,65	0,49	0,07	1,97	-0,34	0,46
Growth in Domestic Bank Credit, 2000-2006	100	11,04	32,50	-44,92	206,37	-0,40	0,35
Central Bank Assets % GDP, 2005	84	0,05	0,08	0,00	0,42	0,22	-0,38
Deposit Money Bank Assets % GDP, 2005	92	0,73	0,49	0,08	2,03	-0,32	0,35
Net Interest Margin, 2005	93	0,04	0,02	0,01	0,14	0,11	-0,33
Bank Overhead Cost/Total Assets, 2005	95	0,04	0,02	0,01	0,10	-0,04	-0,19
Bank Concentration, 2005	95	0,67	0,20	0,18	1,00	-0,03	0,08
Stock Market Capitalization % GDP, 2005	87	0,63	0,65	0,01	3,86	-0,06	0,26
Change in Stock Market Capitalization 2003-2006	83	0,74	0,82	-1,00	4,47	0,11	-0,01
Stock Market Total Value Traded % GDP, 2005	87	0,37	0,53	0,00	2,41	-0,18	0,28
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	87	0,46	0,49	0,00	2,09	-0,20	0,11
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	75	3,70	3,77	0,10	19,30	0,47	-0,42
External Debt Stocks (% of GNI), 2004	52	50,44	33,95	5,61	201,66	-0,04	0,12
Domestic Credit to Private Sector (% of GDP), 2006	99	72,08	58,71	2,48	319,46	-0,34	0,42
Domestic Credit Provided by Banking Sector (% of GDP), 2006	99	81,96	65,54	-24,39	307,90	-0,28	0,31
Bank Capital to Assets Ratio (%) , 2006	75	8,91	3,77	3,00	22,90	0,10	-0,02
Net Financial Assets to GDP Ratio, 2004	98	-0,12	0,91	-1,98	5,13	0,05	0,12
Polity, 2006	90	5,52	6,22	-10,00	10,00	-0,51	0,22
Constraints on Executive, 2006	90	5,63	1,87	1,00	7,00	-0,51	0,19
Size of Government, 2006	89	6,40	1,34	3,06	9,25	0,09	-0,03
Legal Structure and Security of Property Rights, 2006	89	6,39	1,50	3,08	9,01	-0,44	0,53
Access to Sound Money, 2006	89	8,39	1,28	5,06	9,72	-0,24	0,42
Voice and Accountability, (KKM'02)	102	0,36	0,92	-1,85	1,72	-0,55	0,46
Political Stability, (KKM'02)	101	0,36	0,87	-1,90	1,63	-0,40	0,52
Government Effectiveness, (KKM'02)	102	0,46	0,98	-1,56	2,26	-0,44	0,51
Rule of Law, (KKM'02)	102	0,44	0,98	-1,76	2,03	-0,42	0,48
Control of Corruption, (KKM'02)	102	0,40	1,06	-1,89	2,39	-0,40	0,48

Table 13: List of Data Sources

List of Data Sources	
Indicator Name	**Data Source**
Current Account Balance (% of GDP), 2006	World Development Indicators&Global Development Finance, World Bank
Gross Savings (% of GDP), 2006	World Development Indicators&Global Development Finance, World Bank
Trade Openness (IMP+EXP) % GDP, 2007	World Development Indicators&Global Development Finance, World Bank
GDP Growth Average (2008-2009)	World Development Indicators&Global Development Finance, World Bank
Log(population),2006	World Development Indicators&Global Development Finance, World Bank
Log GDP per capita in 2006	World Development Indicators&Global Development Finance, World Bank
Average Growth 2002-2006	World Development Indicators&Global Development Finance, World Bank
External Debt Stocks (% of GNI), 2004	World Development Indicators&Global Development Finance, World Bank
Bank Non-Perfoming Loans to Total Gross Loans (%), 2006	World Development Indicators&Global Development Finance, World Bank
Liquid Liabilities (M3) as % of GDP, 2006	World Development Indicators&Global Development Finance, World Bank
Bank Capital to Assets Ratio (%) , 2006	World Development Indicators&Global Development Finance, World Bank
Growth in Domestic Bank Credit, 2000-2006	World Development Indicators&Global Development Finance, World Bank
Liquid Liabilities / GDP in 2005	Database on Financial Development and Structure, World Bank (2009)
Financial System Deposits / GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Private Credit by Money Banks and Other Financial Inst. % GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Central Bank Assets % GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Deposit Money Bank Assets % GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Bank Overhead Cost/Total Assets, 2005	Database on Financial Development and Structure, World Bank (2009)
Net Interest Margin, 2005	Database on Financial Development and Structure, World Bank (2009)
Bank Concentration, 2005	Database on Financial Development and Structure, World Bank (2009)
Stock Market Capitalization % GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Stock Market Total Value Traded % GDP, 2005	Database on Financial Development and Structure, World Bank (2009)
Change in Stock Market Capitalization, 2003-2006	Database on Financial Development and Structure, World Bank (2009)
Stock Market Total Value Traded % Market Capitalization (Turnover), 2005	Database on Financial Development and Structure, World Bank (2009)
Financial Openness FDI (Assets + Liabilities) / GDP, 2007	An Updated and Extended Version of the External Wealth of Nations Mark II Database Developed by Lane and Milesi-Ferretti (2007)
Financial Openness (Assets + Liabilities) / GDP, 2007	An Updated and Extended Version of the External Wealth of Nations Mark II Database Developed by Lane and Milesi-Ferretti (2007)
Net Financial Assets to GDP Ratio, 2004	An Updated and Extended Version of the External Wealth of Nations Mark II Database Developed by Lane and Milesi-Ferretti (2007)
Business Liberalization, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Credit Market Liberalization, 2001, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Labor Market Liberalization, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Freedom to Trade Internationally, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Size of Government, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Legal Structure and Security of Property Rights, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Access to Sound Money, 2006	Economic Freedom of the World Database (2006) (Available at: http://www.freetheworld.com/)
Regulatory Quality,2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Voice and Accountability, 2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Political Stability, 2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Government Effectiveness,2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Rule of Law, 2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Control of Corruption, 2002	Kaufmann, Kraay and Zoido-Lobaton (2002) (Available at: http://info.worldbank.org/governance/wgi/pdf/GovernanceMattersVII.pdf)
Polity, 2006	Polity IV Data Set (Available at: http://www.systemicpeace.org/polity/polity4.htm
Constraints on Executive, 2006	Polity IV Data Set (Available at: http://www.systemicpeace.org/polity/polity4.htm
Institutional Investor Credit Rating, March 2009	Institutional Investor, March 2009 (Available at: http://www.nxtbook.com/nxtbooks/ii/0309/index.php?startid=39#/40)
Institutional Investor Credit Rating, March 2008	Institutional Investor, March 2008 (Available at: http://www.nxtbook.com/nxtbooks/ii/0308-intl/index.php?startid=88)
Change in Credit Ratings, March 2008-March 2009	Institutional Investor
Euromoney ratings, 2007	Euromoney Magazine, March 2007
Country Total Risk Premium, 2006	New York University Stern Database (Available at: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html)
Exports to US and EU/Total Exports, 2006	United Nations Commodity Trade Statistics Database, Eurostat, World Development Indicators&Global Development Finance, World Bank
Trade with US and EU/Total Trade, 2006	United Nations Commodity Trade Statistics Database, Eurostat, World Development Indicators&Global Development Finance, World Bank

VITA

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