

---

# INSTITUTIONAL QUALITY AND FINANCIAL STRESS: EXPERIENCE FROM EMERGING COUNTRY

---

**ATI Abdessatar**

*Jazan Universty, Kingdm of Saoudi Arabia*

**BEN JAZIA Rachida**

*Tunis El Manar Univrsity (URMOFIB)/ CNAM Paris (LIRSA)*

**Abstract:**

*The purpose of this study is to assess the institutional determinants of financial stress. In particular, we focus on the link between institutional quality and financial instability as measured by the financial stress index. The sample under-study covers the period 1996-2011 for a panel of 21 developing countries. The retreat in MCG showed that the quality of institutions enunciating the freedom of expression and accountability, political stability and anti- violence, government effectiveness, regulatory quality and the rule of the law, appeared statistically in significance with the index of financial stress. Then, a better institutional quality will help bring down the financial tensions and stabilize financial markets. A set of institutional reforms will be urgently requested.*

**Key words:** *Institutional Quality, Finacial Stress, Good Governance*

## 1. Introduction

Recent financial crises have been a major trait in most developing countries. The Empirical literature had previously emphasized the role of economic determinants, financial and monetary explanation of the financial instability, Goodhart et al (2009), and Borrio Drehmann (2009), Mishkin (2009), Rose and Spiegel (2010), Blanchard et al 2010, etc ... Nevertheless, repeated financial crises do not only exert an influence on economic and financial agents, rather they affect a wide array of a more complex system involving :the laws, rules and institutions that govern economic, financial, legal and political systems . That has increased the concern in exploring the interactions between institutional quality and financial stress, Demirgüç-Kunt and Detragiache (1998), (2000); Savings et al (1997) & other. Rodrik (2002, 2003, 2004) Beji and Youssef (2010); Junghee Park (2012), kaufman (2012) .... etc.

This paper attempts to analyze the way the quality of institutions can minimize financial stress on a par with the development of a new institutional theory in response

to the instability of financial markets in recent decades. To tackle the complexity of the interconnectedness between institutional quality and financial stress, this document uses the estimate of governance indicators recently developed by Kaufman (2012). The application of a new measure of financial instability namely financial stress will not only test the reaction of regulators facing financial pressures, but also quantify the magnitude of future crises as well as detect the most volatile periods.

The review of the literature states that there is an agreement on the role of institutional quality in maintaining the balance in the financial sector. Indeed, our empirical estimates of institutional variables along time (political stability and absence of violence, regulatory quality, Rule of Law, voice and accountability, government effectiveness) show that increasing the quality of institutions and the establishment of good governance can reduce financial stress.

The paper is organized as follows: the first section discusses the literature review related to the concepts of institutional quality and financial stress. The second section presents the research methodology and empirical validation and a discussion of the results. The last section concludes.

## **2. Literature Review**

Traditionally, the concept of financial stress has been used in the literature of financial crises in reference to the incidence and rise of the different symptoms of disturbance of the financial system in the phase of panic and / or crash. BIS (1999) list under financial stress widening spreads on bond markets, falling stock indexes, the increasing volatility of asset prices in times of financial crises.

In a study that focuses on the Canadian financial system, Illing and Liu (2003) extended the definition of financial stress in dynamic inter-temporal variables that serve as indicators of disruption of the financial system. According to these authors, financial stress is defined as "the force exerted by the uncertainty and changing expectations of loss of economic markets and financial institutions. If financial stress is systemic, economic behavior can be modified sufficiently to have counter effects on the real economy .... Therefore, the financial stress is a continuous variable with a range of values, where the extreme values are called a crisis. ". Thus, it may be related to a disturbance of normal functioning of financial markets (Hakkio and Keeton, 2009). The examination of the level of financial stress and the impact of financial crises requires continuous monitoring of the financial system. However, analyses of financial crises and stress are closely linked, as crises are marked by achievements extreme financial stress. Frankel and Wei (2004) state that macro-economic fundamentals, contagion and the quality of institutions play a role in determining the level of stress in the financial system.

The main characteristics of financial stress are : the growing uncertainty regarding the fundamental values of the assets as well as the behavior of other investors, the rising of information asymmetry, the decrease in holding risky assets (Rötheli 2010, Dungey et al, 2009) and the reluctance to hold illiquid assets (Easley

and O'Hara, 2010). These characteristics are the basis of periods origins of stress intensity.

The index of financial stress includes the set of variables that reflect the extent of disruption of the financial system. The literature on the financial crises shows symptoms of disturbance of the financial system which are: degradation of asset prices, the depreciation of the exchange rate and / or loss of exchange reserves, the insolvency/ bankruptcy of market participants, the sovereign debt, rising interest rates and increased volatility of financial market returns. And we adopt a systemic approach to the analysis of financial stress that takes account of changes in the main components of the financial system, the banking sector, the foreign exchange market, the stock market and the market for public debt. So, the construction of an index of financial stress is crucial to detect the vulnerability of the financial system. This index provides a continuous set of circumstances that describe an economy at a given time. Balakrishnan et al (2009) add that episodes of financial stress are times when the financial system is turned on and intermediation capacity is weakened. This index is based on market data from high frequency while taking into account the volatility of the stock market, tensions on the foreign exchange markets, the vulnerability of the banking sector and the risk premium.

Several studies are designed to examine the determinants of the impact of financial stress (Rose and Spiegel, 2010 a, b, c; Blanchard et al, 2010; Frankel and Saravelos, 2010, Lane and Milesi-Ferretti, 2010, Beckman et al, 2009, and Giannone. al, 2010). A fourth-generation model of financial crises has identified three broad sets of variables as potential determinants of the incidence of seizures and the proliferation of the severity of stress in financial systems namely weak macro-economic fundamentals, the contagion process and weak institutions. In the present research, we are interested in the study of the effect of institutional quality on financial stress.

Sociologists often reserve the term "institution" to describe normative systems that operate in many areas of life. Indeed, a variety of institutional literature reveals two major conceptions of institutions, on the one hand as regularities of behavior, conventions, habits, and other similar rules. The second, adopted by North, seems more appropriate for the study of the form of business ownership. In addition, the two concepts are complementary.

Schotter (1981) and John Fagg Foster (1981) were the first who defines institutions as patterns of behavior and social conventions. Institutions are considered habits, customs, conventions that emerge through use. They have the game rules of a society.

The concept that the institutions are a set of rules governing the activity of economic agents is originated in the various currents of the new institutional economics (NIE) whose approach to North (1990) fits with the theory of the rights of property. According to North (1991), institutions are defined as formal and informal rules. Formal rules may be political in nature (nature of the political system), economic (property rights) such as contractual or statutory law, common law and regulations.

Informal rules such as being cultural conventions, norms of behavior etc ... Indeed, institutions are systems of incentives that actually dictate human behavior.

North (1990) emphasizes the role of institutions is to "reduce uncertainty by establishing a stable structure to human interaction" and points out that formal and informal institutions are constantly changing, which changes continuously choice available to us.

Jack Knight (1992) defines an institution as "a set of rules that structure social interactions in particular ways." However, the theory of new institutional economics states that institutions must be considered essentially as balances, standards or rules (Aoki, 2001; Crawford and Ostrom, 1995). More recently, the World Bank (1998) defines institutions as come, "the set of rules (constitution, laws and regulations, political system) and informal (reliability of transactions, systems of values and beliefs, representations, social norms) that govern the behavior of individuals and organizations, the latter being the components of the individuals who pursue common goals. As a result, the concept of institutions is a multidimensional concept. It presents different understandings that relate to social relations, politics, the legal system and culture or religion. Indeed, researchers focus on further analysis, the quality of institutions as a factor of stability in the environment financial, La Porta et al (1997, 1998, 1999) and Islam and MMontenegro (2002).

Institutional quality is considered an important driving force of financial stability. This case raises a more fundamental question: why are there countries that are more stable than others? Addressing this issue, a major literature review becomes closer attention to the qualities of particular institutions and the legal system.

The first generation of studies explaining the institutional quality indicators are intended to identify good institutions. Indeed, a wide range of indicators of institutional quality variable are presented as proxies of governance in a country is, the guarantee of property rights in Knack and Keefer (1995), the risk of expropriation in Acemoglu, Johnson and Robinson (2001), political instability in Scully (1988), Fosu (1992) and Olson (1996), corruption in Mauro (1995) and Democracy in Barro (1996).

Second generation studies have attempted introduction of synthetic indices which requires the use of methods of aggregation and classification. Some authors use a simple average to construct an index of global governance, like the work of Knack and Keefer (1995), expanded by Hall and Jones (1999) thereafter. Kauffman, Kraay and Mastruzzi (2005) use unobserved components model to construct their global indicator of governance. Moreover, Scully (1992), Alesina and Perotti (1994) use the method of principal component analysis (PCA) to construct indices of political and economic freedoms.

Institutional quality seems to play a role. Thus some authors have increasingly begun to question the role of policies and institutional arrangements in this wave of financial instability. Many other works & Rodrik (2002, 2003, 2004) suggest that the quality of institutions is involved in all areas of economics and finance. Rodrik (2008) argues that a good institution is a means and an end in itself. They have a tool to lead

to better public policy and economic and financial results. Similarly, it is a development objective which is associated with the relationship between the state and citizens.

Demirgüç-Kunt & Detragiache (1998) were the first to examine the contribution of the institutional environment to banking crises. Using indicators such as the degree of compliance with laws, bureaucracy, GDP per capita and corruption, they showed a developed institutional environment tends to reduce the likelihood of crises. Mehrez & Kaufmann (2000) studied the effect of transparency on the occurrence of banking crises in liberalized financial systems. They confirm that the transparent low economies are more vulnerable to banking crises following financial liberalization.

Demirgüç-Kunt and Detragiache (2000) agree that a large number of countries are involved in triggering the financial and banking crises due to the fragility of their institutional environments and a high interest rate deregulation favoring hazard moral. From the study of the Savings and Loan crisis, Kroszner (1997) showed the presence of a significant relationship between political factors such as the transparency of government decisions, competition between interest groups and the structure legislation on the one hand, and reducing the costs of banking crises on the other.

The study of Claessens, Klingebiel & Laeven (2004) conducted a panel of 29 countries over the period 1980-2000 indicates that the time and cost of resolving systemic crises depend significantly on the level of corruption and efficiency the legal system. A low level of corruption reduces the costs due to the occurrence of increased financial instability.

More recently, Ben and Gamra.S Plihon.D (2008) attempt to examine, in the context of an institutional approach, the dynamic recurrent banking crises in emerging markets. They exude a nontrivial economic relationship between the quality of institutions and the dynamics of systemic banking crises. They suggest that recurrent banking crises are the result of institutional fragility of emerging economies engaged in financial liberalization. Institutions vary significantly across countries, and these differences affect the way in which financial liberalization may be associated with seizures. Institutions can encourage excessive risk taking if they do not fulfill their role. To prevent these attacks, it should strengthen institutional structures.

Beji and Youssef (2010) proceed to build legal and institutional indicators from six institutional indicators. These indicators are the Control of Corruption, the Rule of Law, the quality of bureaucracy, the Ethnic Tensions, the repudiation of Government Contracts and the risk of expropriation by the state. According to these authors, the quality factor of the institutional environment is indispensable to the achievement of sustainable banking and finance. In a study on the MENA not, these authors studied the relationship between the institutional environment and development bank, they did not find a significant positive relationship. To this end, these countries should implement reforms that boost the institutional and political development, so they can finally act on financial stability and banking and therefore by improving economic growth. Institution has a good effect to promote the integration of countries into the global economy, Rodrik (2008).

Pattama et al (2006) evaluate the causes of currency crises and exchange with emphasis on the role played by a wider range of institutional factors. Their results also show that the institutions that economic factors influence the likelihood of crises. Indeed, they show that corruption, weak government stability.

These key characteristics of financial stress are the amplification of uncertainty about fundamental values of assets and about the behavior of other investors, the rise of asymmetric information, the decline will hold risky assets (flight to quality) (Rötheli, 2010; Dungey et al., 2009) and reduced willingness to hold illiquid assets (flight to liquidity) (Easley and O'Hara, 2010). These characteristics are the basis of the origins periods of stress intensities.

Various qualitative aspects such as the legal system, economic freedom and political stability of a country are very important in determining the strength of the financial sector. To control these aspects, we evaluate institutional quality in four areas critical to retain institutional environment namely the regulatory environment, public environment, the legal and political environment. These indicators are derived from the database (WGI) Kaufmann et al. (2012).

On a regulatory framework for the exercise of banking is ordered around a banking law, an agreement establishing the Commission Bancaire, a prudential and accounting standards uniforms. However, the weakness of the regulatory and legal environment makes the banking system more sensitive to a crisis, this is achieved in the case where countries and rules enforcement is also weak, inefficient bureaucracy mechanisms for enforcing contracts are inefficient.

The ineffectiveness of the regulatory framework may affect the soundness of the financial system, and especially if there is asymmetry of information available on the actual situation of institutions in difficulty, this can prepare mounted instability since the quality and reliability of published documents that are important to differentiate between the good of those bad banks and their customers to cope with credit risk and put in place the necessary provisions to cover commitments risky.

The regulatory environment is evaluated by prudential rules as the Cooke ratio, McDonough and recently the Basel 3. Several studies have shown the impact of the regulatory environment on the amplification and duration of the Asian crisis (1997) as studies conducted by Hussain and Wihlborg (1999), Plihon (2006), Godelewski (2004), etc.. Plihon (2006) shows that the increased requirements for capital can have a destabilizing impact by strengthening macroeconomic cycles. In addition to the procyclical behavior of banks, Plihon (2006) identifies another channel through which capital requirements cause financial instability and increase the likelihood of systemic crises. Is the fact that outsourcing risks off bank balance sheets in order not to be obliged to comply with the prudential standards. This outsourcing is taking advantage of financial innovations such as securitization or through financial derivatives. These results in increased dissemination of market risks and their transfer to smaller players watched as institutional investors and hedge funds. Similarly, Beck et al (2006) study the impact of regulation on the probability of occurrence of a systemic banking crisis. They show that regulatory policies could hinder competition which may trigger a

banking instability. However, Ahrend. R and A. Goujard (2012) show that the strengthening of banking supervision led to a decrease in the probability of banking crises around 58%. Ahrend well. R et al (2011) argue that regulatory force indicators are relatively well correlated with the extent to which countries can avoid bank failures during the financial crisis.

Regarding the public environment, the United Nations Secretary General denounces that "corruption is a threat to development, democracy and stability. It distorts markets, inhibits the growth and discourages foreign investment "(United Nations, 2010). Jain (2001) defines corruption as "the acts in which the power of the civil service is used for personal purposes in a manner that contravenes the rules of the game." A large number of university research has been focused on the economic and financial consequences of corruption at the country level. Indeed, much evidence suggests that corruption is a factor that contributes to financial crises in the world due to its negative impact on bank balance sheets. Deteriorating balance sheets remains one of the main symptoms of financial crises. An example of the financial crises in Asia in the years 1997-1998, it was revealed that increased corruption contributes to a financial crisis.

Junghee Park (2012) studied the impact of corruption on the strength of the banking sector. It proves that corruption significantly aggravate the problems of bad loans in the banking sector. Indeed, corruption distorts the allocation of funds which reduces the quality of private investment and thus lowers economic growth while increasing the probability of occurrence of banking crises. This author finds that corruption deteriorates considerably the quality of bank loans. The relationship between the corruption index and ratio of nonperforming loans is positive and highly significant. Whereas the increase in loan portfolio risk makes the banking system as a whole very low, and therefore it makes the country more vulnerable to the financial crisis, and corruption can be a major cause of financial crises.

On environmental policy, Acemoglu et al (2003) argue that poor political institutions lead to distorting policies, which resulted in a reduction in growth and an increase in the volatility of financial markets. A. Cavallo and E. Cavallo (2010) show that the strengthening of democratic institutions can mitigate or even eliminate the negative effects of financial crises. So the existence of a high level of political participation and civil liberties ensures a level of political stability to the maintenance of a balance on the financial market. However, political uncertainty only expands a set of triggers banking crises while increasing financial instability. Indeed, the weakening of the government, the presence of violence present catalysts financial stress. This is the case of crises in Mexico in 1994, Korea in 1997 and Brazil in 1998 and 2002. Similarly, the fragility of the political system in Indonesia has fostered economic and financial vulnerability. Such political uncertainty affect investment, this leads to leakage of capital flows and domestic cost increases, including an intervention rigorous and thorough institutional reform is a first necessity.

The political environment is assessed by the political rights and the functioning of political institutions, in particular the freedom and legality of elections, acceptance or

denial of the change at the head of the state and the participation of military life, political capacity measured by political decision-making capacity, policy coherence and authority of political freedoms and the autonomy of civil society, including freedom of the press, association, assembly and demonstration, respect of the relationship between citizens and respect for ethnic, religious and linguistic and national security measured by the security of goods and people, ethnic conflict, criminal activities and violent social conflicts. D.Acemoglu and J.Robinson (2012) state that the success or failure of nations depends mainly on the quality of political and economic institutions.

Analyses follow and try to examine the phenomenon of financial stress in its economic events, managers and accountants (Marini 1999-2000 Giovanoli 2000). G20 summits, the Heads of State and Government have spoken statements whose purpose is the overhaul of the financial system on a solid foundation. This requires a mix between a recovery strategy based on fundamental principles of economic development and strengthening the regulation and supervision of financial regulation. Reform of international financial institutions is also a great need. Considerations behind these economic and political profile in place of law in the context of the financial crisis and the measures envisaged to cope.

The legal environment is evaluated by safety of oral and written contracts between private local and foreign contract enforcement by the state, the form of contracts, security of property rights as measured by the effectiveness of legal existence of a system of compensation for the land, the means of production and the absence of pressures on private property, and the effectiveness of bankruptcy law on companies measured by the degree of application of the bankruptcy law and the independence of the bodies responsible for deciding bankruptcy.

In summary, stability, sustainability and efficiency of financial markets in emerging countries depend crucially a set of institutional factors namely: prudential regulation, supervision, transparency, fight against corruption, the effectiveness of public action, contract security, respect for property rights, capacity and political stability. It should then be noted that despite efforts by officials and organizations, the establishment of effective institutions developed and remains a major challenge.

### **3. The methodology and Model**

Premium on board, it is important to note that the institutional environment is a mechanism that determines the efficiency of financial markets and their stabilities. In addition, a failure of this environment suggests taking excessive risks by banks in reducing the effectiveness of governance. Under this section, we will discuss the contribution of indicators of institutional quality in explaining financial instability. Similarly, we will try to find an answer to the following question: strengthening the institutional and regulatory framework it can guard against financial and banking crises and addressing the problems of financial stress?

This study supports the literature on financial instability and institutions. The main objective is to reassess the determinants of financial crises by focusing on the



role played by a wider range of institutional factors while controlling the financial and economic factors with the aim to correctly estimate the contribution of institutions to stress financial. From a financial market stability requires the presence of good institutions.

Our econometric study covers a sample of 27 emerging countries for a period from 1996 to 2011 to assess the relationship between institutional quality and financial stress. These individual data and time that allow us to make an estimate in panel data. The use of panel data allows us to use statistical information in two dimensions: individual and temporal. It therefore follows an efficiency gain in accuracy estimates.

i. **The independent variable**

**Financial Stress Index (ISF):**

The Financial Stress Index is calculated as follows:

**FSI =  $\beta$  + Returns + stock + market volatility EMBI + Index speculative pressures on the foreign exchange market**

With :

➤ **The beta of the banking sector** : it is a measure of the correlation between the total returns of the stock index of the banking sector and the overall market index.

The calculation is as follows (Financial beta) noted :  $\beta_{i,t} = \frac{cov(r_{i,t}^B, r_{i,t}^M)}{\sigma_{i,t}^M}$ ; with r the annual performance of the banking sector (B) ou du market (M).

➤ **The components of the sub-index on the stock market:**

- The stock market returns: changes in monthly stock returns multiplied by -1 yields a decrease dung is considered a higher stress on the stock market. The decline in stock market returns can cause a drop in risk appetite among investors. Thus, the flight to quality and liquidity to be observed.
- The stock market volatility: measured by the mean square moved in six months back one month to another market yields dung. The increased volatility in the stock market involves information asymmetry and flight to liquidity and investor uncertainty about fundamental values.

➤ **The components of the sub-index on the foreign exchange market:**

- The volatility of the foreign exchange market: measured by the mean square moved in six months back one month to another market yields exchange for advanced economies. It is measured by the pressure of emerging economies EMPI. It captures the depreciation of the exchange rate and levels of international reserves.

$$EMPI_{i,t} = \frac{(\Delta e_{i,t} - \mu_{i,\Delta e})}{\sigma_{i,\Delta e}} - \frac{(\Delta RES_{i,t} - \mu_{i,\Delta RES})}{\sigma_{i,\Delta RES}}$$

where  $\Delta e$  and  $\Delta RES$  indicate

the monthly change in the exchange rate and total reserves minus gold, respectively.  $\mu$  and  $\sigma$  are the mean and standard deviation of the series. This component involves uncertainty about fundamental values and asymmetry of information on the forex market.

➤ **EMBI : standard sovereign debt**

**i. The explanatory variables**

**Political stability / absence of violence:**

It measures the probability of violent changes of government system, as well as serious threats to public order, including terrorism. It also combines several indicators that measure how perceived likelihood of destabilization and overthrow of a government by institutional or resort to violence. A higher level of government stability means that the government is more likely to be able to continue its programs announced and remain in power. Factors such as the type of governance, control the legislature and the public approval policies are considered. Government stability consequently leads to minimize the uncertainty about the business (bank and nonbank) and strengthen the economy and reduce capital flight and panic in the financial market. From a higher index value indicates a greater political stability. The expected sign of this variable is negative.

**The Effectiveness of Government:**

It measures the competence of the bureaucracy and the quality of public services and how they are able to handle political issues without interruption of services. This indicator combines into a single index of perceived quality of public services, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures and the credibility of the government. This index is oriented inputs required for the government to be able to produce and implement sound policies and ensure good public service.

A higher level of quality of the bureaucracy means that the government is more likely to be able to continue its programs announced and remain "in office". Therefore, there is less uncertainty with respect to the conduct of government and less uncertainty regarding economic performance. From a higher index value indicates a greater stability of the government the expected sign of the stability of government is negative.

**Voice and Accountability:**

It includes a number of indicators measuring various aspects of the political process, civil liberties, political rights and independence of the media. It assesses the extent to which a country's citizens are able to participate in selecting their government, they monitor and accountable.

**Control of Corruption:**

It measures the use of powers (attribution) for personal enrichment especially individuals with a position of power. Higher levels of corruption are more likely to lead to inefficient economic decisions and greater resource allocation. The inefficiency and misallocation of resources exposes the economy to a greater risk of suffering economic performance loss (whether in the banking sector, public sector export and import, etc.). Since the poor economic performance can lead to capital flight. And higher levels of corruption can increase the magnitude of financial instability. Corruption can also make it more uncertain the outcome of contracts and transactions that may increase the propensity to sell risky assets. Since a higher index means less corruption, the expected sign of the effect of corruption on financial instability as measured by financial stress is negative.

**Rule of Law:**

It measures the quality of legal enforcement of contracts by the judiciary, impartiality and compliance popular law. This index is composed of several indicators that measure the degree of confidence of citizens in the rules designed by the company and how they comply. These indicators include perceptions of crime, violent and nonviolent, efficiency and fairness of the judiciary and respect for contracts and agreements. All these indicators determines the success of a state to establish an environment in which fair and equitable rules form the basis of economic and social relations. A higher degree of order means that not only are there more "respect" for the law by the people, but also that the judicial system is fair and impartial. Thus, a higher degree of order also implies less uncertainty in all types of transactions. Contractual obligations are more likely to be met under the terms of the agreement and the legal system is more likely to settle cases fairly. Thus, the law and order can indirectly strengthen the economy and make it less likely to be subject to capital flight and crisis. Since a higher number indicates a greater respect for law and order, the expected sign of law and order is negative.

**Regulatory quality:**

It has regulatory barriers to functioning markets. This indicator measures the impact of policies on the open market (such as price controls or weak bank supervision), and perception of burden (tax and regulatory) that is excessive regulation of sectors such as trade and business development. This indicator shows the strength and quality of the public and the bureaucrats and how they are able to handle political issues without interruption of services. This indicator shows both the independence and autonomy of the administration vis-à-vis the political and executive changes, as well as incentives that officials have to work through the mechanisms of recruitment and promotion. It is oriented policies in the strict sense. This criterion includes the antis liberal policy measures such as price controls or inadequate bank supervision, as well as the burden imposed by excessive regulation in areas such as foreign trade and business development. A higher level of quality of the bureaucracy means that services and policies are less likely to be interrupted and / or modified and that organizations are less likely to be influenced by political pressure. Therefore, there is less uncertainty with respect to the conduct of government and less uncertainty regarding economic performance. Thus, the crisis may be less likely to arise in the presence of a good quality of the bureaucracy. From a higher index value indicates a higher quality of the bureaucracy, the expected sign of the quality of regulation is negative.

The financial stress index is derived from the base Balakrishnan. R et al (2009), IMF WP "The Transmission of Financial Stress from Advanced to Emerging Economies." The set of variables representing institutional quality are collected from worldwide Governance Indicators Database (2012) and Data Gov.

The model we present attempts to analyze the relationship between institutional quality and financial stress. This is a linear model between the variables

representing institutional quality and financial instability. The econometric model is as follows:

$$ISE_{it} = \alpha_0 + \beta_1 SPO_{it} + \beta_2 GOVE_{it} + \beta_3 V - ACC_{it} + \beta_4 CC_{it} + \beta_5 RL_{it} + \beta_6 RQ_{it} + \mu_{it}$$

With :

$$\alpha = (\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5, \alpha_6)$$

$\mu_{i,t}$  = Error term

$SPO_{it}$ : Political stability to the country i and period t

$GOVE_{it}$ : Government Effectiveness to the country i and period t

$V - ACC_{it}$ : Voice and accountability for period t and country i

$CC_{it}$ : Control of Corruption for the period t and country

$RL_{it}$ : Rule of Law for the period t and country i

$RQ_{it}$ : Regulatory quality in period t and country i

#### 4. The Findings

To analyze the effect of institutional quality on financial stress in the emerging markets, we adopt an econometric approach with panel data estimator as the Method of Generalized Square to address the problem of autocorrelation. The results are given in the following table:

Variables	coefficient	Std.Error	Z-Statistic	P> z	[95% Conf. Interval]	
<b>Political Stability</b>	-0.21272	0.0947171	-2.25	0.025	-0.3983622	-0.0270779
<b>Government Effectiveness</b>	-0.6385371	0.2902719	-2.20	0.028	-1.207459	-0.0696147
<b>Voice/Accountability</b>	-0.6360556	0.1175914	-5.41	0.000	-0.8665305	-0.4055807
<b>Control of Corruption</b>	-0.1797893	0.2360944	-0.76	0.446	-0.6425257	0.2829471
<b>Rule of Law</b>	-0.7726868	0.2212265	-3.49	0.000	-1.206283	-0.3390908
<b>Regulatory Quality</b>	-0.5190421	0.193043	-2.69	0.007	-0.8973995	-0.1406847
<b>Constant</b>	0.3860164	0.2743565	1.41	0.159	-0.1517125	0.9237452
<b>Nombre d'observations</b>	<b>336</b>					

The results of different estimates verify the hypothesis that good institutions explain positive financial stability and minimizing the level of stress and tension, trigger sources of financial and banking crises. Overall, the variables studied appear relevant, the explanation of financial stress and are statistically significant with the expected sign.

According to the estimates presented in the table above, the political stability variable is negatively significant which justifies the existence of a direct relationship between the political and financial instability. Improved political stability is to reduce the level of financial stress, thereby minimizing the likelihood of emergence of financial and banking crises. According to Alberto F. Cavallo (2010) the strengthening of democratic institutions can mitigate or even eliminate the negative effects of financial crises. So the existence of a high level of political participation and civil liberties ensures a level of political stability to the maintenance of a balance on the financial market. A higher level

of government stability means that the government is more likely to be able to continue its programs announced and remain in power. Factors such as the type of governance, control the legislature and the public approval policies are considered. Government stability consequently leads to minimize uncertainty to businesses (bank and nonbank) and strengthen the economy and reduce capital flight and panic in the financial market. Indeed, the success or failure of nations depends mainly on the quality of political institutions which maintain economic and financial stability, and D.Acemoglu J.Robinson (2012).

Government effectiveness variable is significant. There is a negative relationship between government effectiveness and financial stress. This is explained by the fact that improving the level of efficiency of the government is to reduce financial stress. Indeed, the more the government is able to formulate and implement sound policies, more countries have financial stability.

Voice and Accountability variable is significant with a negative coefficient (-0.6360556). This can be explained by the fact that most citizens are more likely to access the selection of their government, a stable political environment characterized by civil liberties, political rights and freedom of the press and media, the financial environment present fewer constraints guaranteeing a level of stability. Informational transparency has thus enhance competition.

The Rule of Law variable is significant. It has a negative sign. A higher degree of order and law means that the people are subject to a fair and impartial judiciary. Compliance with laws and orders can indirectly strengthen the economy and make it less likely to be subject to capital flight, financial crises and banking fragility. Thus the law purports to strengthening financial stability. Delors, good legal institutions can mitigate the tendency of financial risks.

The regulatory quality variable is significant. It has a negative sign. Since a high quality regulatory indicates a level of financial stability. This result is confirmed by studies Ahrend. R and A. Goujard (2012) which showed that the strengthening of banking supervision led to a decrease in the probability of banking crises around 58%. Ahrend well. R et al (2011) argue that regulatory force indicators are relatively well correlated with the extent to which countries can avoid bank failures during the financial crisis.

## **5. Summary and Conclusions**

The last two decades have seen a proliferation of financial crises across countries throughout the world and especially emerging with increased interest among researchers and Policymakers. However, it is only recently that there has been a major change in the level of understanding of financial stress starting with macroeconomic and financial determinants to determinants deeper institutional type. Institutions can be presented as economic, financial, political, legal or social or implied that affect expectations and thus the risk of uncertainty in international transactions, algal source of financial and currency crises.

This article attempts to examine in the context of an institutional approach to the dynamics of recurrent financial crises in emerging markets. The objective is to demonstrate, through an econometric analysis of stylized facts, the role of the quality of institutions governing economic and financial activity and identify institutional dimensions that may contribute to financial stress.

Our empirical study strengthens the hypothesis of a relationship between institutional quality and the dynamics of financial stress. The results of various theoretical estimates support the hypothesis that the quality of institutions plays an important role in explaining the financial stress. The overall results suggest that financial stress is the result of institutional fragility of emerging economies. Despite the average quality of institutions in these countries, they can boost financial stability by further improving the quality of their institutional environment. Indeed, countries wishing to establish a regular and sustained financial stability must show real capacity to conduct economic and financial policies of the government to create an enabling environment for freedom of expression, respect for the rule of law to delineate and avoid all forms of violence and political instability, gain height by the cancellation of corruption. Similarly, a better institutional quality leads to more stability.

To summarize, a more consensual with better public governance, political stability and absence of violence, government effectiveness, a fair and impartial judiciary, a good political process (civil liberties, political rights, press freedom, independence media ...) everything will be equal, a country relatively free of financial stress and therefore financial crises. These results allow enriching the theoretical models of crises and 4th generations to build on this aspect of forecasts of future crises.

## **6. References:**

- Ahrend, R. and A. Goujard (2011), *Drivers of Systemic Banking Crises: The Role of Bank-Balance-Sheet Contagion and Financial Account Structure*, OECD Economics Department Working Papers, No. 902, OECD Publishing.
- Ahrend, R. et A. Goujard (2012), *International Capital Mobility and Financial Fragility - Part 3: How Do Structural Policies Affect Financial Crisis Risk? Evidence from Past Crises Across OECD and Emerging Economies*.
- Balakrishnan, R., S. Danninger, S. Elekdag, and I. Tytell (2009), *The Transmission of Financial Stress from Advanced to Emerging Economies*, IMF Working Paper No. 09/133.
- Beck, T., A. Demirgüç-Kunt, and R. Levine (2006), *Bank concentration, competition, and crises: First results*, *Journal of Banking and Finance*, 30(5), 1581-1603.
- Beji et Youssef (2010), *La place de régulation bancaire dans le développement bancaire et la croissance : une approche institutionnelle pour les pays d'Afrique du Nord et du Moyen-Orient*, *Région et développement* n°32-2010.
- Ben Gamra, S., & Plihon, D. (2008), *Qualité des institutions, Libéralisation et crises bancaires le cas des pays émergents*, working paper 2008.
- Berkmen, Pelin, Gaston Gelos, Robert Rennhack and James P Walsh (2009), *The Global Financial Crisis: Explaining Cross-Country Differences in the Output Impact*, IMF Working Paper WP/09/280.

- Blanchard, Olivier, Hamid Faruqee and Mitali Das (2010), *The Initial Impact of the Crisis on Emerging Market Countries*, unpublished.
- Borio.C. et M. Drehmann (2009), *Towards an Operational Framework for Financial Stability: 'Fuzzy' Measurement and Its Consequences*. BIS Working Paper No. 284.
- Cavallo A. and E. Cavallo (2010), *Are Crises Good for Growth? The Role of Political Institutions*, Journal of Macroeconomics, Vol. 32, March 2010.
- Claessens, Stijn, Daniela Klingebiel, and Luc Laeven, (2005), *Crisis Resolution, Policies, and Institutions: Empirical Evidence*, in Patrick Honohan and Luc Laeven (eds.), *Systemic Financial Distress: Containment and Resolution*, Chapter 6, pp. 169-96, Cambridge: Cambridge University Press.
- Demirgüç-Kunt, A. & E. Detragiache (1998), *Financial Liberalisation and Financial Fragility*, IMF Working Paper No. 83.
- Demirgüç-Kunt, A. & E. Detragiache (2000), *Does Deposit Insurance Increase Banking System Stability?*, IMF Working Paper No. 3.
- Douglass C. North (1991), *Institutions*, The Journal of Economic Perspectives, Vol. 5, No. 1. (Winter, 1991), pp. 97-112.
- Dungey, M., M. MacKenzie, and V. Smith (2009). *Empirical evidence of jumps in the term structure of the U.S. treasury market*. Journal of Empirical Finance 16, 430–445.
- Easley, D., de Prado, M., and O'Hara, M. (2010a). *The microstructure of the ash crash: Flow toxicity, liquidity crashes and the probability of informed trading*.
- Foster, John Fagg (1981), *The Papers of J. Fagg Foster*. Journal of Economic Issues 15, no. 4 (December 1981): 857–1012.
- Frankel, Jeffrey A and George Saravelos (2010), *Are Leading Indicators of Financial Crises Useful for Assessing Country Vulnerability?*, NBER Working Paper 16047.
- Frankel, Jeffrey, and Shang-Jin Wei (2004), *Managing Macroeconomic Crises: Policy Lessons*, Chapter 7, in *Economic Volatility and Crises: A Policy-Oriented Guide*, edited by Joshua Aizenman and Brian Pinto, World Bank, Washington DC, 2004.
- Giannone, Domenico, Michele Lenza and Lucrezia Reichlin (2010), *Market Freedom and the Global Recession*, unpublished.
- Godlewski, C.G. (2004), *Le Rôle de l'Environnement Réglementaire, Légal et Institutionnel dans la Défaillance des Banques, Le Cas des Pays Emergents*, Laboratoire de Recherche en Gestion et Economie, Papier No. 64.
- Goodhart, C., C. Osorio, and D. Tsomocos (2009), *An Analysis of Monetary Policy and Financial Stability: A New Paradigm*. CESifo Working Paper No. 2885.
- Hakkio et Keeton (2009), *Financial Stress : What is it, How can it be measured and why does it matter ?*, Federal reserve bank of Kansas city. Pp 5-50.
- Hoggarth, G., R.Reis & V.Saporta (2002), *Costs of Banking System Instability: Some Empirical Evidence*, Journal of Banking and Finance No. 26 (May).
- Hussain, Qaizar and Clas Wihlborg (1999), *Corporate Insolvency Procedures and Bank Behavior: A Study of Selected Asian Economies*, IMF Working Paper 1999/135, October
- Illing et Liu (2003), *An Index of Financial Stress for Canada*, Bank of Canada Working Paper 2003–14, <http://ideas.repec.org/p/bca/bocawp/03-14.html> (Ottawa: Bank of Canada).
- Jain (2001), *Corruption : un examination*, Journal of economic survey, 15 (2001) ; pp 71-121.
- Jeffrey Sachs Vs. D. Acemoglu and J. Robinson (2012), *Why Nations Fail*.
- Junghee Park (2012), *Corruption, Soundness of the banking sector, and economic growth : A cross country study*, Journal of international money and Finance vol 31, issue 5, September 2012, pp 907-929.

- Kaufman et al (2012), *The Worldwide Governance Indicators: Methodology and Analytical Issues*, World Bank Policy Research Working Paper No. 5430
- Kaufmann, Daniel, Aart Kraay and Massimo Mastruzzi (2005), *Measuring governance using cross-country perceptions data*. Washington: World Bank.
- Knack, Stephen and Philip Keefer (1995). *Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures*. *Economics and Politics*, 7, 207-27.
- Kroszner, Randall S., (1997), *The Political Economy of Banking and Financial Regulation in the U.S.* pp. 200-13 in George M. von Furstenberg, ed., *The Banking and Financial Structure in the NAFTA Countries and Chile*, Boston: Kluwer Academic Publishers.
- Lane, Philip R. and Jay C. Shambaugh (2010), *Financial Exchange Rates and International Currency Exposures*, *American Economic Review* 100(1), 518-540, March 2010
- Mauro (1995), *Corruption and Growth*, *The Quarterly Journal of Economics*, Vol. 110, No. 3 (Aug., 1995), pp. 681-712
- Mishkin, F. (2009), *Is Monetary Policy Effective during Financial Crises?*, *American Economic Review Papers & Proceedings* 99(2), pp. 573–577.
- North D.C., (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, UK..
- Plihon.D (2006), *Instabilité financière et risque systémique : l'insuffisance du contrôle prudentiel, les cahiers français*, N331, pp 85-90.
- Robert E. Hall and Charles I. Jones (1999), *Why Do Some Countries Produce So Much More Output per Worker than Others?*, *Quarterly Journal of Economics*, 83-116.
- Rodrik, D. & A.Subramanian (2003), *The Primacy of Institutions*, *Finance and Development*, June.
- Rodrik, D. (2008). *Second-best institutions*. *American Economic Review Papers & Proceedings*, 98(2), 100–104.
- Rodrik, D., A.Subramanian & F.Trebbi (2002), *Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development*, Discussion Paper No. 3643.
- Rose, Andrew K and Mark M Spiegel (2010a), *Cross-Country Causes and Consequences of the 2008 Crisis: An Update*, CEPR Discussion Paper 7901.
- Rose, Andrew K and Mark M Spiegel (2010b), *Cross-Country Causes and Consequences of the 2008 Crisis: Early Warning*, *Global Journal of Economics*, forthcoming.
- Rose, Andrew K and Mark M Spiegel (2010c), *Cross-Country Causes and Consequences of the 2008 Crisis: International Linkages and American Exposure*, *Pacific Economic Review*, forthcoming.
- Blanchard, Olivier, Hamid Faruqee and Mitali Das (2010), "The Initial Impact of the Crisis on Emerging Market Countries" unpublished.
- Rötheli, Tobias F. (2010), *Causes of the Financial Crisis: Risk Misperception, Policy Mistakes, and Banks' Bounded Rationality*, *Journal of Socio-Economics*.
- Schotter A. (1981), *The Economic Theory of Social Institutions*, Cambridge, MA, Cambridge University Press.
- Shimpalee Pattama L, Breuer Janice Boucher (2006) *Currency crises and institutions*. *Journal of International Money and Finance* 25(1): 125-145.