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EDITORIAL

Dear readers!

The recent issue of the journal is devoted to several governance and regulation issues.

Monal A. Abdel-Baki and Nirmala Dorasamy make the first effort to assess the PIT reforms in Egypt, with the aim of helping the new government to assess preceding policies and pursue the successful ones. The research is also an important lesson for the leaders of emerging economies encountering similar circumstances to enact reforms and to perpetuate economic growth and sociopolitical stability.

Edmundo R. Lizarzaburu, Anastasios Moysidis and Julio Quispe Salquero pay attention in their research to two major international financial institutions: International Monetary Fund and the World Bank. Size, structure, source of funding, recipients of funding, operation and cooperation of the mentioned organizations are analysed. The authors try to indicate main differences and peculiarities in the activity of the International Monetary Fund and the World Bank.

Stephan Paul, Stefan Stein and André Uhde present and discuss main results of a new survey on the assessment of supervisory quality among German banks. In particular, it is analyzed if and how supervised banks' perception of the quality of supervisory authorities and their instruments has changed due to the financial crisis starting in mid-2007. Subsequently, results from the recent survey are compared with findings provided by a former study carried out by the authors in 2006 (Paul, Stein and Uhde, 2008).

Borut Stražičar analyses several important issues concerning legal implications that had been raised after the financial crisis. The Author covers such issues as theory of principle based regulation, legal questions and problems, connected to the principle based regulation starting with the validity of regulations and necessary assumptions for a workable principle based legislation.

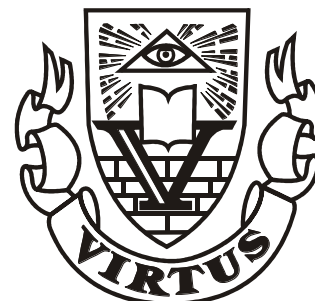
Ivo Pezzuto aims to demonstrate, through solid and fact-based assumptions, that global financial crisis could have been addressed and managed earlier and better by many of the stakeholders involved in the subprime mortgage lending process such as, banks' and investment funds management, rating agencies, banking and financial markets supervisory authorities. It also unfortunately demonstrates the corporate social responsibility failure and the moral hazard of many key players involved in this crisis, since a lot of them probably knew quite well what was happening but have preferred not to do anything or to do little and late in order to change the dramatic course of the events.

Sankarshan Acharya offers a novel rational philosophical foundation for the concepts of god, religion and science in which the claim that science triumphs over religion is redundant. This paper also presents substantial new insights about epistemic truths to help resolve current problems facing humanity like financial moral hazard and terrorism which have unnerved nations worldwide.

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THE ROLE OF PERSONAL INCOME TAX REFORMS IN THE TRANSITION TO A DEMOCRATIC AND EGALITARIAN EGYPT

Monal A. Abdel-Baki*, Nirmala Dorasamy**

Abstract

The efficacy of the 2005-Personal Income Tax (PIT) reform in enhancing the macroeconomic performance in Egypt is tested using a structural vector autoregressive model. The results reveal that PIT reforms have successfully generated jobs and accelerated GDP growth. The reforms may cause mild inflation in the short-run, but their long-term effects are non-inflationary. This is the first effort to assess the PIT reforms in Egypt, with the aim of helping the new government to assess preceding policies and pursue the successful ones. The research is also an important lesson for the leaders of emerging economies encountering similar circumstances to enact reforms and to perpetuate economic growth and sociopolitical stability.

Keywords: Egypt, Personal Income Tax Reforms, Fiscal Policy, SVAR Model

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1. Introduction

As the incessant uprisings of Egyptians kept amplifying since the turn of the millennium, the *ancien régime* passed a number of reforms that were apparently belated. Unable to quell the public's rage, Mubarak's tyrannical government found no alternative but to censure all sorts of criticism and shut down the vocal rioters. But the true disgrace of the ousted regime is the conversion of the heart of the Arab World into a police state whose prime aim was to protect the regime. Its true disgrace is not forging elections and killing protestors to ensure the transition of Mubarak's son to power in a middle-age caliph-like fashion. Its true disgrace is not the high level of corruption and cronyism that had blemished and infiltrated all facets of the Egyptian political and bureaucratic architecture. Indeed, the true disgrace of the toppled regime is its oblivion to the ordeal of the tens of thousands of street children and child labourers who plague the streets of the intellectual hub of the Middle East. The true disgrace of the ousted autocratic regime is the deprivation of 40 percent of the population of basic food, housing and health necessities at a time when the economy was flourishing and growing at an annual rate of 7 percent. The true disgrace of the egotistical dictatorial regime is the illiteracy of 35 percent of the

inhabitants of the homeland of the most advanced ancient civilisation (Breisinger *et al.*, 2011). The Egyptian Revolution was inevitable.

But Mubarak's foreign policy has also been an important trigger of the popular revolution. He and his cabal were adept and dexterous in conjuring up images of a militant Islam and spuriously used this claim to sustain, justify and perpetuate themselves in power. Mubarak sanctimoniously won for himself the epithet of "guarantor of peace" in the Middle East and a bulwark against Iranian ascendancy and Islamist supremacy in the Region. Consequently, foreign investments and massive financial aid from his Western backers were squandered to bankroll the regime and its cronies instead of being poured into beneficial development projects.

In reaction to these convoluted and mortifying conditions, a religious façade has developed in Egypt. As more Egyptians found Islam the only safe haven, the meaning of Islam was gradually effaced by extremism and superficial physical appearances. The state's contravention of the social contract and its delegation of the social welfare tasks to the civil society, made it easy for the endowed and well-resourced Muslim Brotherhood to garner support among the vast majority of the urban and rural poor (Wright, 2008). Thus, community-based politics exercised by the long-suppressed and well-

established Muslim Brotherhood and faith-based politics by the newly-founded Salafis won Islamists a 72 per cent majority vote in the 2012 parliamentary elections (Khorshid, 2012).

The results of the elections came as a complete shock and disappointment to the young middle-class revolutionaries, activists and intellectuals who impressed the entire world with their ability to convert Tahrir Square into a victorious carnival of liberty and freedom. But being hailed by the Egyptians as the true conscience of the Revolution, the secular activists are already transforming themselves from anarchic and leaderless individuals to organized political groups and future election-fighting machines. The second watchdogs over the Islamists during the fraught and bumpy transition stage are the 85 civil society groups and the 150 trade unions that were founded since the eruption of the Revolution. Even more optimistically, the Muslim Brotherhood is endeavouring to form alliances with some minority secular political parties as a means of gaining the trust of a wide range of seculars and Christians. Hence, a new all-embracing social contract is already in the making.

The first item on the agenda of the elected leaders is to tackle the most pressing issues of child labour, illiteracy, food security, housing and staggering unemployment. Otherwise, the mushrooming Egyptian population will find no alternative but to take its grievances to the streets. The incessant uprisings, the slow process of transition and the slowdown in private investment have cost Egypt more than 60 percent of its foreign reserves, slowed down GDP to 0.2 percent, increased public debt to 76.2 percent of GDP and raised unemployment to 11.8 percent in 2011 (CBE, 2012). The new government is in a dilemma trying to simultaneously meet the accumulated legitimate human development demands whilst reducing the fiscal budget deficit from the current level of 11 percent to the previous levels of 7-8 percent of GDP.

There are two approaches to solve such a predicament. The short-term solution is the issuance of domestic debt, which could encourage an artificial perception of wealth and thus bolster consumer spending. However, if taken to the extreme, this comes at the cost of a fiscal crunch in the long-run. The other solution is a well-designed tax-subsidy system to act as an immediate tool of income redistribution as well as an instrument of boosting GDP growth and creating jobs. In fact, the previous government took the second approach, albeit a bit too late. Tackling fiscal reforms in a timely way can surely reduce their potential cost. More important than introducing new policies and totally disbanding those of preceding regimes, is the need to pursue policies that had previously proved successful (Breisinger et al., 2011).

While indirect taxes aim to rein in fiscal deficit, direct taxes are basically concerned with balanced

investment and consumer expenditure levels. But whenever the concept of equality is discussed, attention usually turns to personal income tax (PIT) rates. PIT reforms need to address the issues of enhancing equality and creating a buoyant economy. Most certainly, creating a virtuous cycle by enhancing tax revenues and lowering the fiscal deficit as well as establishing equality are the prime requests of the Egyptian populace. Hence, the new government and the majority Islamist parties should carefully assess preceding policies, to press ahead with the previously successful reforms and to immediately discontinue and reverse the destructive ones that do not meet the aspirations and norms of Egyptians.

As such, our aim in this paper is to study the efficacy of the PIT Reform that was enacted by the previous government in enhancing macroeconomic performance. The rest of the paper is organized as follows. Section 2 details the personal income tax reform in Egypt. Then, the structural vector autoregressive (SVAR) model is constructed in Section 3. The study extends from 1997:01 till 2010:04, which is the period during which Egypt was exposed to contagion effects from the Asian Financial Crisis and the Triple-F – food, finance and fuel - Crisis. Section 4 evaluates the impact of tax reform shocks on inflation, employment and output. Section 5 concludes with policy implications.

2. Personal Income Tax Reforms and Fiscal Illusion in Revolutionary Contexts

The conviction that people's purchasing power would improve if taxes were cut is no longer asserted as an article of faith. Empirical studies show that high-tax countries have been more successful in achieving their social objectives than low-tax countries (Brooks and Hwong, 2006). Contrary to popular belief, social polarization is lower in high-tax nations, probably due to the fact that taxes remain the main source of public revenue needed to for fiscal discipline and for the provision of vital public goods and services (Perry, 2007). Higher taxes are also necessary for sustainable human development, macroeconomic growth and stability, and higher purchasing power (Debrun et al., 2007). In order to effectively pursue the economic and social agendas of any nation, a number of requisites are essential for enacting an efficient and equitable tax system. Firstly and most importantly, especially for nations grappling with a transformation from totalitarianism and corruption towards an all-inclusive and egalitarian political system, the tax system needs to be equitable (Tanzi and Zee, 2001). In other words, the marginal and average tax levels should not be exceedingly high in order not to lead to unemployment and poverty traps (Azariadis and Stachurski, 2005). Equally important, the tax system must be broad-based to give the fiscal authorities enough flexibility to reduce the incidence

and severity of economic and financial crises (Auerbach, 1996). Thirdly, the tax system must be designed in a manner to make taxes easily monitored and enforceable at a minimal cost (Ardagna, 2004).

But as much as the literature agrees on the factors imperative for tax efficiency, there are heated disputes on tax levels and structure. On the one hand, proponents of the tax-spend hypothesis believe that the government will spend whatever revenue is made available (Friedman, 1978). Hence, this school strongly recommends tax cuts during inflationary pressures (Mack et al., 1943). On the other hand, Amilcare Puviani (1903), the precursor of fiscal illusion, stipulates that tax levels are not as important as enhancing government efficiency. Fiscal illusionists advocate prudence at all times (Niskanen, 2006). In other words, taxes should be increased specifically during fiscal deficit episodes as a means of alerting the public of the high government costs and pressurizing the government for more prudence (Young, 2009). These costs emanate from the “dynamic common-pool problem”, whereby the decentralized process of deciding on the level of public spending by different members of coalition parties and the executive system often leads to exaggerated and excessive spending (Persson, 2001).

2.1 Personal income tax and fiscal illusion in Emerging Market Economies

But fiscal inefficacy is primarily the product of political delusion and tax opacity (Mauro, 2007). The fact that government programs are in many cases unrecognized by the electorate, while the taxes to support government spending are directly experienced and understood, is another major source of fiscal illusion (Downs, 1960). Especially in fiscally decentralized systems, suffering from low levels of intergovernmental coordination, taxpayers are unconscious of the high costs of government programs (Weingast, 1995). The risk with such multiple layers of governments exhausting the same tax base is that the fierce competition could lead to either costly public programmes or an under-provision of public goods and services (Allsopp and Vines, 2005).

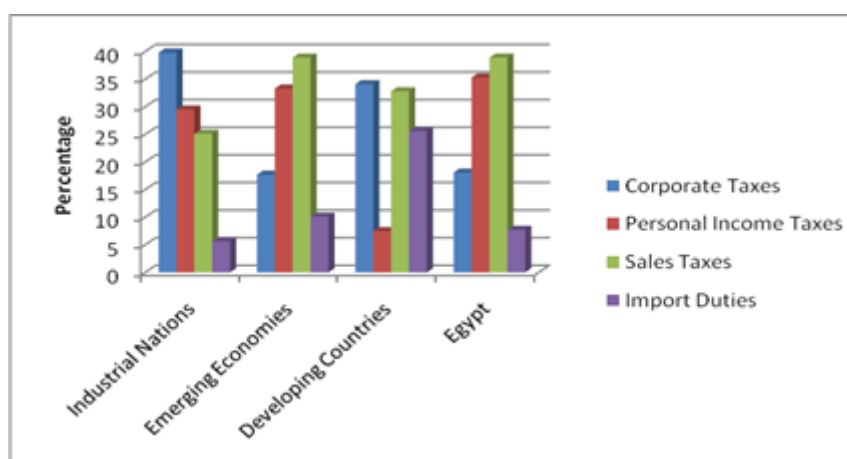
But in emerging economies problems are more multifaceted. The first and most intrinsic problem facing emerging and developing nations is the narrow tax base, when the need is to expand the tax revenue targets beyond projected economic growth (Galal and Haque, 2006). The highly centralised revenue-raising tax authorities and the greater decentralisation of expenditure to regional and/or sub-national governments create a vertical fiscal imbalance (Gelb et al., 2007). The reliance of national and municipal governments on debt and government grants has

clouded the full costs of public spending to taxpayers (Ajam, 2007). In such decentralized systems the only way to achieve fiscal consolidation is to adopt a strict no-bail-out approach to help curb waste and control provincial spending (Bird and Ebel, 2007). Some other intangible sources of fiscal illusion in many emerging market economies are the inefficiency, capacity constraints and poor quality of public service delivery that raise the cost of government programs (Ponzano, 2007). In many instances, the scarcity of fiscal resources are apt to pass on the costs of national policies to local governments, leading to an increase in other taxes – the most perceptible threat of the state’s unsustainable fiscal path (ACOSS, 2009). This implies that budget preparation and execution must be constrained, except that under undemocratic systems, political corruption gives birth to a weak legislative system that does not properly exercise its supervisory and lawmaking roles (Wyplosz, 2011).

Even more significant elements of the tax system in emerging economies are largely hidden and under-perceived by the public due to the opaque and multi-layered fiscal budgets (Thornton and Adedeji, 2010). The serious impact of this murkiness is low tax compliance by the distrusting taxpayers (Mirrlees, 1994). In response to high tax evasion and low direct tax revenue, governments might find no alternative but to issue government bonds (Barro, 1974) or to raise taxes (Majsterek and Welfe, 2012). In the absence of adequate producer incentives, higher corporate taxes would negatively impact private investment causing a slowdown in the economy (d’Andria, 2011).

PIT and sales taxes have a highly tangible negative impact on the purchasing power of individuals, but it is generally argued that producer incentives have a longer term effect on the economy through job creation and GDP growth in emerging markets that possess immense resources and huge markets (Brooks and Hwong, 2006). Figure 1 reveals that this is specifically true for emerging economies like Egypt, where most tax proceeds are imposed on individual households. But these governments should be prepared for periods of initial hostility (Jha, 2007), which might develop into sociopolitical tensions if the electorate does not feel an immediate upgrading of public services (Buchanan and Musgrave, 1999). In other words, emerging economies are exposed to their own version of fiscal illusion due to the unawareness of the public of the expected long-term benefits accruing from tax reform since the prime concern of the population is the immediate impact (Blanchard and Perotti, 2002). The rest of the paper tries to unveil the obscurity by assessing the efficacy of PIT reforms in Egypt.

Figure 1. Comparison of tax revenue in 2010



Source: World Bank Database

2.2 PIT Administrative Reforms in Egypt

The very first strikes that erupted at the dawn of the 2005-Presidential and Parliamentary Elections were emblematic of a series of incessant protests. To ensure the peaceful transition of Mubark’s son, people’s anger had to be quelled. The Egyptian Ministry of Finance took belated steps to improve income distribution and raise living standards by amending the Income Tax Law in 2005. As shown in Table 1, 40 percent of Egyptians who lie below the national poverty line – equivalent to EGP Pounds 5,000 or USD 850 per annum – are totally exempted of income tax. At the other extreme, the new law ensured that the richest 2,000 Egyptian taxpayers –

earning more than EGP 10 million per annum – are to contribute 70 percent of the total PIT bill. Appendix 1 details the reform efforts, whereby the main philosophy behind the Egyptian reforms is to make the higher income groups bear most of the burden and to re-channel tax revenue to low-income individuals through subsidies and more expenditure on public utilities. Moreover, the reformed tax policy provided relief to compensate for inflation. This was especially important at the outbreak of the Triple-F Crisis – Food, Fuel and Finance – since Egyptians were galvanized around the potent issues of skyrocketing prices, escalating youth unemployment, appalling levels of crony capitalism and excessive inequality.

Table 1. Personal Income Tax

Income Bracket	Percentage of Personal Income
< EGP 5,000*	Tax exemption
EGP 5,000 - EGP 20,000	10%
EGP 20,000 - EGP 40,000	15%
EGP 40,000 - EGP 10 million	20%
> EGP 10 million	25%

* The threshold of tax exemption was raised in June 2011 to EGP 5,000 from EGP 4,000 to account for inflation.

Source: Egyptian Ministry of Finance (2011), *The Financial Monthly*, MoF, Cairo, December.

In order to achieve these goals, tax revenue needed to be enhanced. But this was challenging for a nation that has 8.2 million people or 37 percent of the

labour force employed in the informal sector, making tax evasion the norm in the country (Ramalho, 2007).

Table 2. Sources of Financing Public Debt

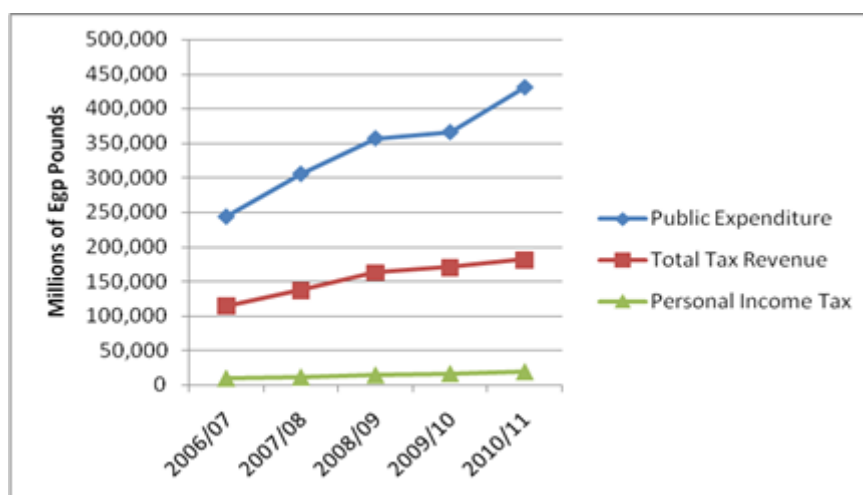
	2009/10	2010/11	2011/12(Forecast)
Tax Revenue	EGP 170.5 billion (14.1% of GDP)	EGP 199.8 billion (14.5% of GDP)	EGP 232.2 billion (14.8% of GDP)
Grants	EGP 4.3 billion (0.4% of GDP)	EGP 5 billion (0.4% of GDP)	EGP 10 billion (0.6% of GDP)
Borrowings	EGP 93.3 billion (7.7% of GDP)	EGP 89.8 billion (6.5% of GDP)	EGP 107.4 billion (6.8% of GDP)
Total	EGP 93.3 billion (22.2% of GDP)	EGP 89.8 billion (21.4% of GDP)	EGP 349.6 billion (22.3% of GDP)

Source: Egyptian Ministry of Finance (2011), *Economic Monitor*, MoF, Cairo.

As the economic slowdown failed to raise public revenue at the same pace of expenditure, the government relied on raising the tobacco tax by 40 percent on July 1, 2010. The real estate tax was reformed in 2008 with the aim of increasing public

revenue by EGP 2billion per annum, mostly contributed by upper income groups. The more equitable income distribution in Egypt was achieved through the over-reliance on public debt (IMF, 2005) as detailed by Figure 2 and Table 2.

Figure 2. Public Expenditure and Revenue in Egypt (2006-2011)



Source: Central Bank of Egypt (2012), *Monthly Statistical Bulletin – December 2011*, CBE, Cairo.

Yet, the road to broad-based and inclusive economic development is not only contingent on public policy and state action, but also on responsible citizenship. Therefore, a compliance model was an integral ingredient of the tax reform that drove service delivery and efficiency in the quest for cost efficiency. The Egyptian Tax Authority able to achieve this by enhancing enforcement, improving communication initiatives to broaden the tax base, and entrenching values in taxpayers (Egyptian Ministry of Finance, 2010). Furthermore, a system of internal control has successfully provided cost-effective assurance that resources are efficiently managed.

3. The Empirical Model

The general norm has been to habitually use simultaneous-equation structural models for

economy-wide forecasting. Since the Vector Autoregressive (VAR) model can be envisioned as an estimate of reduced-form structural models, it has been excessively used for both forecasting and policy evaluation purposes. In response to the criticisms of the inability of the VAR model to show how responsive agents' behaviour is to anticipated policy rules, Ingram and Whiteman (1994) developed the Bayesian Vector Autoregressive (BVAR) model. In order to account for the contemporaneous impact of variables on others, Blanchard and Perotti (2002) use Structural Vector Autoregressive (SVAR) techniques to estimate fiscal multipliers on the tax and on the spending side of the government. Their results reveal that the VAR model is more suited to study fiscal rather than monetary policy since there is little or no discretionary response of fiscal policy to unexpected movements in activity within the quarterly periods. Thus, with enough information about the tax and

transfer systems and the timing of tax collections, one can obtain estimates of fiscal policy shocks. Having identified these shocks, one can then trace their dynamic effects on macroeconomic data. Badinger (2006) enhances the previous methodology by estimating autoregressive conditional heteroskedasticity models for output growth and inflation with the fiscal shocks to show evidence of a destabilizing role of discretionary fiscal policy. The model that has been widely used to simulate policies is the dynamic stochastic general equilibrium (DSGE) model. Majcen *et al.* (2009) link the DSGE model to a micro-simulation BVAR model for Slovenia, and the results of the study reveal that a flat tax rate will not help in adequately attaining economic and human development.

The VAR model has also been successfully employed for the purpose of applying simulated policy and macroeconomic shocks to real-time data. Márquez *et al.* (2010) demonstrate the spillover effects of fiscal spending on the entire economy and its efficacy in bridging regional gaps. The vector autoregressive model is not only efficient in forecasting the effect of future policies, but it has been put to further use for assessing fiscal reforms. Alesina *et al.* (2002) empirically reveal that increases in government spending fail to enhance consumption and that tax cuts are the most effective way to stimulate the economy. Romer and Romer (2007) challenge this assertion and prove that consumption declines if government spending is financed through tax increases. Again, using the SVAR model, Mertens and Ravn (2010) clarify that the very fact that consumers anticipate the fiscal agent's behavior renders fiscal policy ineffectual in boosting economic growth.

As much as the literature is generous in using econometric modeling to examine the macroeconomic effects of tax reforms, the Egyptian case has been sparsely broached. Using Ordinary Least Squares and regression analysis, Alba *et al.* (2004) conclude that the relatively high debt-output ratio in Egypt inhibits long-term growth. Kia and Gardner (2009) as well as Buitter (2004) prove that the fiscal budgeting process in Egypt is not sustainable due to its feeble tax base. In a country

report by the International Monetary Fund (2005), the VAR model proved effectual in measuring the pass-through of interest rates to inflation. Thus, this paper fills an apparent literature gap since the macroeconomic impact of the recently enacted personal income tax reforms has not been studied yet.

3.1 The SVAR Model

We utilize the structural autoregressive model to examine how tax revenue affects the levels of employment, inflation and GDP growth. The study extends over 1997:01-2010:04 in order to cover the periods of the economic distresses of the 1997 Asian Crisis, the global financial crisis, and the tax reforms. Given the high seasonal variation in employment, consumption, investment and growth in Egypt, we seasonally adjust the data. Seasonal data is used since fiscal policy in Egypt is highly pro-cyclical and is found to be highly expansionary during periods of low tourism receipts and expatriates' remittances (Ben Slimane and Tahar, 2010). Then it is indexed to the price level of the year 2000, which is a relatively stable year for the Egyptian economy. Due to the high seasonal variation in our time series, it becomes challenging to pinpoint turns in economic trends. Hence, we use the Tramo/Seats function from EViews since it is capable of observing outliers before the time series returns to its starting level.

The specification of the SVAR model includes seven variables. Appendix 2 details the descriptive statistics for the model. The following is the reduced form VAR, where all variables are in logs except for inflation and the interest rate.

$$X_t = \mu_0 + \mu_1 t + B(L)X_{t-1} + U_t \quad (1)$$

X_t is the vector of variables, μ_0 is a constant, $B(L)$ is an autoregressive lag polynomial, and U_t is the corresponding vector of reduced form residuals, with non-zero cross correlations. After performing the Augmented Dickey-Fuller test, all the variables were found to be integrated of order one as shown in Table 3.

Table 3. Stationary Variables

PIT				
ADF Test – 4 difference lags		ADF Test – 3 difference lags		
-3,31101	-4,3382*	-3,4911	-3,6413*	I (1)*
	-3,8123**		-2,9752**	
	-3,3184***		-1,9987***	
NIT				
ADF Test – 4 difference lags		ADF Test – 3 difference lags		
-3,96181	-4,4482*	-3, 9101	-3,1194*	I (1)*
	-4,1189**		-2,9985**	
	-3,9144***		-2,9007***	

G

ADF Test – 4 difference lags		ADF Test – 0 difference lags		
3,8415	-3,1936*	3,2739	-2,7189*	I (1)*
	-2,8837**		-1,9985**	
	-2,5549***		-1,8892***	

*,**,*** 1,5, 10% critical values respectively

$$AU_t = BV_t \tag{2}$$

The efficacy of the tax reform can be executed through estimating the structural personal income tax shocks v_t^{pit} , the structural shock imposed by all other taxes v_t^{nit} , and government spending shocks v_t^g . Then

the responses of the macroeconomic variables to these shocks are studied. Equations (3) through (5) express the reduced-form equations as linear combinations of the structural fiscal shocks.

$$u_t^{pit} = \alpha_y^{pit} u_t^y + \alpha_\pi^{pit} u_t^\pi + \alpha_r^{pit} u_t^r + \alpha_e^{pit} u_t^e + \beta_g^{pit} v_t^g + \beta_{nit}^{pit} v_t^{nit} + v_t^{pit} \tag{3}$$

$$u_t^{nit} = \alpha_y^{nit} u_t^y + \alpha_\pi^{nit} u_t^\pi + \alpha_r^{nit} u_t^r + \alpha_e^{nit} u_t^e + \beta_g^{nit} v_t^g + \beta_{pit}^{nit} v_t^{pit} + v_t^{nit} \tag{4}$$

$$u_t^g = \alpha_y^g u_t^y + \alpha_\pi^g u_t^\pi + \alpha_r^g u_t^r + \alpha_e^g u_t^e + \beta_{pit}^g v_t^{pit} + \beta_{nit}^g v_t^{nit} + v_t^g \tag{5}$$

The identification of the model is achieved *à la* Blanchard and Perotti (2002) where decision and implementation lags in fiscal policy are assumed to consume more than one quarter. Moreover, previous studies using a higher lag order did not reap different results (Mountford and Uhlig, 2005). The following identifies the relationship between the reduced-form residuals U_t and the structural shocks V_t .

To estimate structural shocks and to identify the system, the automatic contemporaneous elasticities (α) need to be externally estimated on the basis of institutional information. The cyclically-adjusted reduced form residuals are detailed in Equations (6) to (8) where the contemporaneous, discretionary change in each of the fiscal policy variables in response to changes in the other four macroeconomic variables is zero.

$$u_{t(CA)}^{pit} \equiv u_t^{pit} - (\alpha_y^{pit} u_t^y + \alpha_\pi^{pit} u_t^\pi + \alpha_r^{pit} u_t^r + \alpha_e^{pit} u_t^e) \equiv \beta_g^{pit} v_t^g + \beta_{nit}^{pit} v_t^{nit} + v_t^{pit} \tag{6}$$

$$u_{t(CA)}^{nit} \equiv u_t^{nit} - (\alpha_y^{nit} u_t^y + \alpha_\pi^{nit} u_t^\pi + \alpha_r^{nit} u_t^r + \alpha_e^{nit} u_t^e) \equiv \beta_g^{nit} v_t^g + \beta_{pit}^{nit} v_t^{pit} + v_t^{nit} \tag{7}$$

$$u_{t(CA)}^g \equiv u_t^g - (\alpha_y^g u_t^y + \alpha_\pi^g u_t^\pi + \alpha_r^g u_t^r + \alpha_e^g u_t^e) \equiv \beta_{pit}^g v_t^{pit} + \beta_{nit}^g v_t^{nit} + v_t^g \tag{8}$$

To identify the β -coefficients, the fiscal shocks need to be ordered to study which fiscal variable reacts to the others contemporaneously. Except for the amounts periodically withheld from salaries and wages, and automatically fed into government spending, the Egyptian Tax Authority collects personal income taxes in the first quarter of each year. Hence, it is assumed that PIT chronologically comes first followed by government spending. β_g^{pit} and β_{nit}^{pit} are assumed to be equal to zero, reaping the following equation:

$$u_{t(CA)}^{pit} \equiv v_t^{pit} \tag{9}$$

Since government purchases are assumed to be decided before non-income taxes, then $\beta_{nit}^g = 0$.

$$u_{t(CA)}^g \equiv \beta_{pit}^g v_t^{pit} + v_t^g \tag{10}$$

and,

$$u_{t(CA)}^{nit} \equiv \beta_g^{nit} v_t^g + \beta_{pit}^{nit} v_t^{pit} + v_t^{nit} \tag{11}$$

All of the relevant β -coefficients can be estimated by a simple Ordinary Least Square (OLS) regression of (u) on the structural shocks. The coefficients of the equations for macroeconomic variables are recursively estimated by means of instrumental variable regressions. With respect to GDP the following set of equations are employed:

$$u_t^y = \alpha_{pit}^y u_t^{pit} + \alpha_{nit}^y u_t^{nit} + \alpha_g^y u_t^g + v_t^y \tag{12}$$

$$u_t^\pi = \alpha_{pit}^\pi u_t^{pit} + \alpha_{nit}^\pi u_t^{nit} + \alpha_g^\pi u_t^g + v_t^\pi \tag{13}$$

$$u_t^r = \alpha_{pit}^r u_t^{pit} + \alpha_{nit}^r u_t^{nit} + \alpha_g^r u_t^g + v_t^r \tag{14}$$

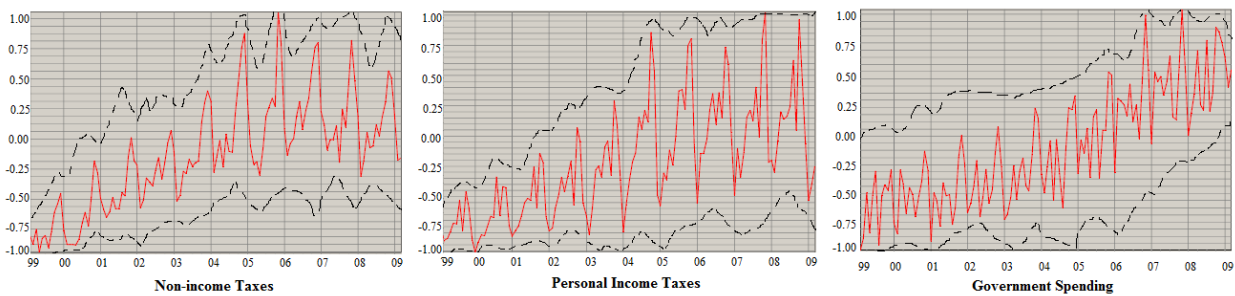
$$u_t^e = \alpha_{pit}^e u_t^{pit} + \alpha_{nit}^e u_t^{nit} + \alpha_g^e u_t^g + v_t^e \tag{15}$$

Then, the estimated series for the fiscal shocks \hat{v}_t^{pit} , \hat{v}_t^{nit} , \hat{v}_t^g are used as instruments for the reduced form u_t^{pit} , u_t^{nit} , u_t^g respectively. The same is followed for the other equations.

3.2 Fiscal Policy Shocks

Once the reduced-form of the SVAR and all α and β -coefficients are estimated, the policy shocks are computed. To solve for non-fundamentalness in using the structural moving-average representation of the SVAR, the process by which the variables fluctuate about their time-invariant means is determined by the parameters, the past history of the exogenous variables and the independent and identically distributed (i.i.d.) shocks or innovations (Alessi et al., 2008).

Figure 3. Fiscal Policy Shock Historical Decomposition (percentage values)



Following the methodology of Stock and Watson (2001), error bands are computed by Monte Carlo simulations based on 1000 replications. The results displayed by Figure 3 show that all three shocks are in line with government actions. In general, taxes show an increasing impact in Egypt especially since the reform period of 2005. This is specifically evident for the PIT and the most momentous effect takes place during the last quarter of each year. The government appears to be relentlessly imposing positive expenditure shocks, with the highest increase occurring in the wake of the GFC due to the LE 15.5 billion (USD 3 billion) fiscal stimulus package, whose effects faded away after less than one quarter. This renders the stimulus package highly costly and futile. The maximum impact of government spending occurs during the third quarter of each year, which is the highest period of consumption expenditure due to the start of the school year in Egypt (Egyptian Ministry of Finance,

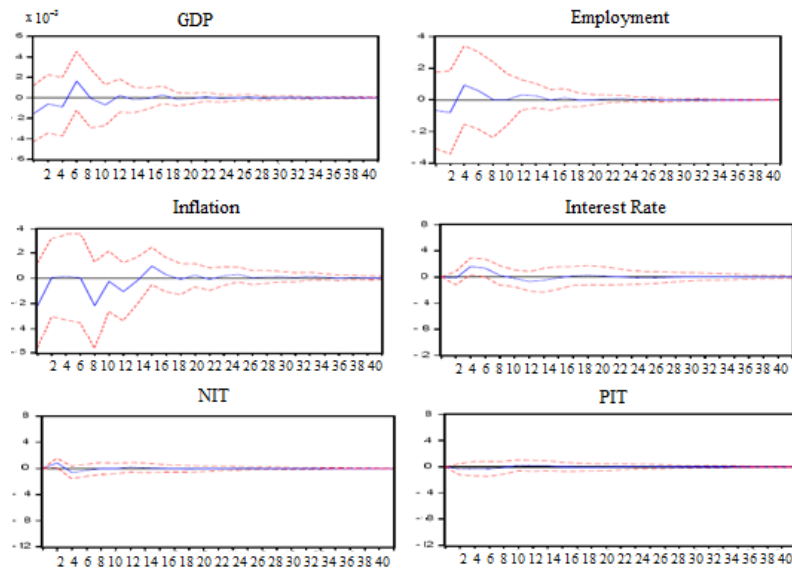
2010). This finding has significant implications for the timing of government expenditure.

4. Results

4.1 Impulse Responses to Government Spending

The effects of a direct government spending shock are examined using a six-variable VAR, comprising: GDP, employment, CPI, interest rates, non-income taxes and personal income taxes. Figures 4 displays the impulse response functions of annual growth rates associated with one standard deviation shocks. The vertical axes measure the percentage deviation of the variable from its long-run value in response to shocks. The horizontal axes measure the number of years along which the adjustment to any shock takes place. The solid line gives point estimates, while the broken lines plot 16th and 84th percentile bands of the posterior distribution of the impulse responses as per Blanchard-Perotti (2002) identification approach.

Figure 4. Impulse Responses to Positive Government Spending Shock



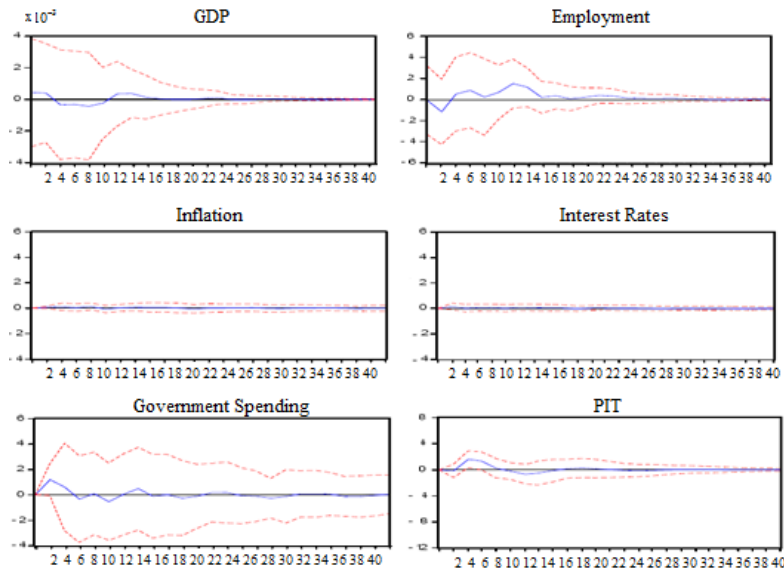
The responses of GDP and job creation to expansionary fiscal expenditure last for only a few months and then gradually fade away. The impact on inflation is more substantial, which should act as a warning signal to the fiscal agents not to excessively rely on this tool especially at times of impending inflation. A small rise in the interest rate is observed, stemming from the inclination of the government to finance its expenditure through borrowing. This finding may motivate more studies to measure the extent of the crowding-out effect. Finally, a very small negative impact is detected for both income and non-income taxes. The overall conclusion is that the effects of fiscal policy are favourable, albeit that they

have to be used with discretion when high inflation persists.

4.2 Impulse Responses to Non-income Tax Cuts

Figure 5 traces out the dynamic effects of non-income tax shocks. The Egyptian government has reduced the threshold for corporate taxes in 2005 as an incentive to boost investment. To increase the overall tax proceeds, the government depended on levying higher property and real estate taxes on the uppermost income groups, whilst exempting poorer individuals whose housing units have market value of less than LE 500,000 (USD85,000) (Egyptian Ministry of Finance, 2010).

Figure 5. Impulse Responses to Non-income Tax Shock

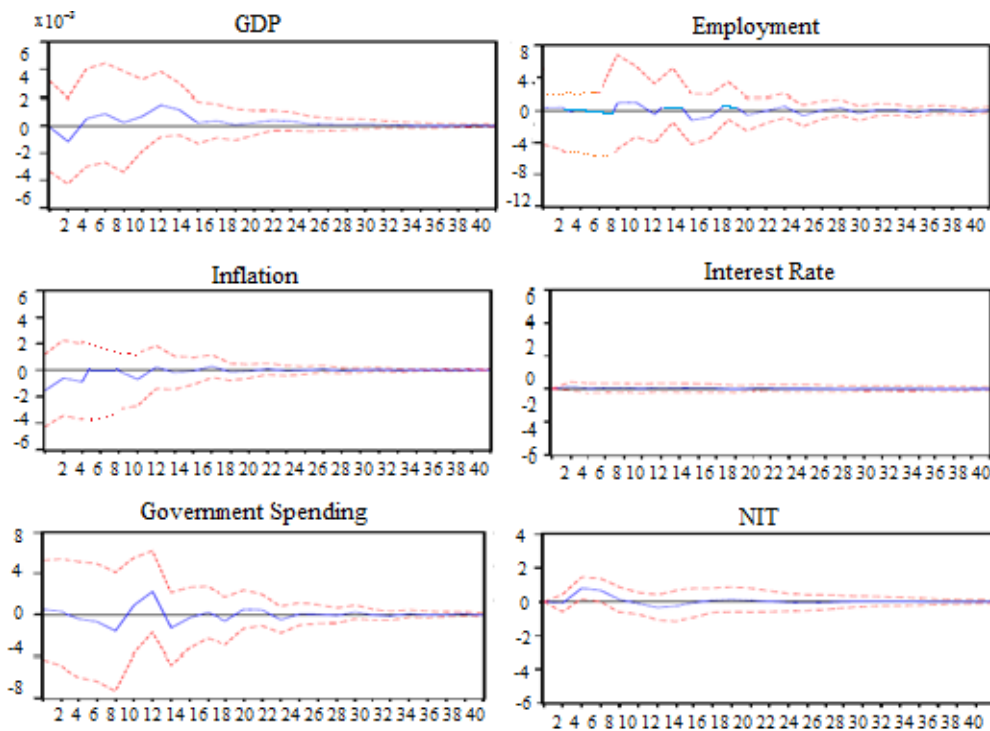


The impulse responses capture well the fact that the effect of this tax decrease is temporary, where GDP is back to normal after two quarters. With regards to employment, the response is rather slow, but lasts considerably long. This is plausibly explained by higher levels of job creation by the private sector in Egypt that benefits from the substantial reduction in corporate taxes from 30 percent to 20 percent. Suffice it to say that the private sector in Egypt contributed more than 75 percent to the GDP growth rate since the turn of the century (Central Bank of Egypt, 2010). The effects on both interest rates and inflation are negligible, which renders this fiscal tool slightly distortive. Finally, it is quite obvious that the expansionary effects of government spending lead to a higher purchasing power and more disposable income, which in turn have a small and positive impact on income tax receipts.

4.3 Impulse Responses to Personal Income Tax Cuts

The impacts of PIT reforms are quite substantial as detailed by Figures 6. After a brief slowdown for two quarters, GDP starts to grow at a rigorous rate in response to the PIT shock, but dies out in three years in Egypt. This may be due to the fact that more taxes are collected from the upper income groups, while 3 million households, making up 18.8 percent of the population are totally exempted from PIT (Egyptian Ministry of Finance, 2010). With the rise in disposable income, consumption expenditure is apt to increase, and is therefore reflected with the slight rise in other tax revenues. Accordingly, a slight inflationary effect is expected, but dies out after 3-4 quarters. An exogenous 1 percent PIT shock raises GDP after 6-8 quarters. This response goes to zero after two years, reflecting the relatively low persistence of the shock with a lag. Minimal effects are recorded for interest rates, other types of taxes and employment.

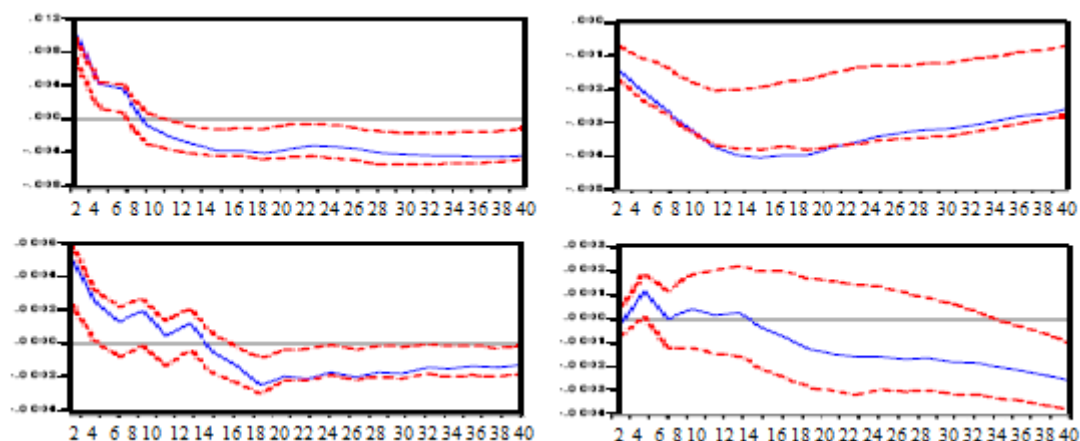
Figure 6. Impulse Responses to Personal Income Tax Shock



4.4 Robustness Tests

In order to ensure the robustness of results, the exercise is repeated where the three fiscal policy tools

are lumped together. The impulses reported in Figure 7 are quite similar to the benchmark model and well within the 84th and 16th percentile bands.

Figure 7. Impulse Responses to the Three Fiscal Tools

Effects of the three fiscal tools (lumped together) on GDP, employment, inflation and interest rates.

5. Concluding Remarks and Policy Implications

The Egyptian Revolution is the inevitable result of the escalating pervasiveness of socioeconomic and political grievances. The political triggers are largely reflected in the main demands of the protestors to put an immediate end to corruption and to install freedom, social justice and human dignity. On the socio-economic front, the revolution is largely attributed to mounting unemployment, skyrocketing consumer prices, crony capitalism, concentration of wealth and concomitant income inequality. Despite high levels of economic growth in the recent past, living conditions for the average Egyptian remained poor. The rise of powerful business people in the ruling party, government and the People's Assembly increased perceptions of corruption and widened the conceptual rift and the economic gap between social classes.

The corruption that the *ancien régime* had implanted is overly deep-rooted and makes the transition to democracy a most taxing task. Demonic plots by the allies of the previous regime and the deplorable living conditions have left the new government overwhelmed with designing short-term measures for a safe transition to democracy, meeting the immediate needs of the impoverished members of the population, and battling with domestic and foreign debt. The real peril is that the rebels are disillusioned with the motivations of the previous tyrannical regime and are requesting for dismantling all previously enacted policies on the premise that they that might have been blemished with the vested interests of those with ties to Mubarak and his cabal. Undoubtedly some of these concerns might be well-motivated, but a word of caution has to be interjected. It is true that the ousted government was habitually used to passing hasty and superficial reforms, but some of the reforms previously enacted were functional and should be pursued. The problem is that instead of promptly addressing social grievances the

delayed responses of the fatigued Mubarak regime, which had divorced itself from public opinion for many years, were unable to dispel people's anger and gloom. Even amidst the Revolution, the belated minor concessions offered by Mubarak fueled the protestors' anger.

Policy Implications

This research shows that the previously enacted extensive tax reform and more efficient tax collection have expanded revenue, reducing the income tax burden on the lower most impoverished population, albeit that the reforms were introduced a bit too late. Fiscal consolidation improved the budget deficit and had created a lower and more sustainable debt burden. Given the rising welfare expenditure needed to cater to the demands of a mushrooming population, the new Egyptian government should pursue this programme that makes the uppermost income groups shoulder the tax burden. A number of policy implications could be extracted from this research.

- The personal income tax shows a delayed reaction equal to two quarters, but the full impact is felt during the fourth quarter of each year. PIT tax reforms are very much translated into higher GDP growth, possibly due to an enhanced level of consumption expenditure. This policy tool may cause mild inflation in the short-run, but the long-term effects are non-inflationary. PITs prove to be an adequate source of government spending, and hence it is the most effective of all three alternatives.
- Non-income tax cuts may lead to higher purchasing power and more disposable income, but they have a small and positive impact on income tax receipts. Perhaps the only expansionary effect of this fiscal tool is the high impact on government spending. This implies that tax proceeds are utilized by the government to finance fiscal expenditure.

- The responses of GDP and job creation to expansionary fiscal expenditure last for only a few months, while the inflationary effect signals that this fiscal policy tool should be used with caution at times of high inflation. Additionally, government spending does not substantially affect tax revenue, which may be explained by the fact that most of the beneficiaries of fiscal spending are the poor who lie within the tax exemption threshold. The results of the impact analysis reveal that the positive impacts of this tool are most profoundly felt in the fourth quarter in Egypt. Hence, it is advisable to use aggressive expansionary fiscal expenditure during the months of April, May and June.
- The effects of the stimulus package are initially well pronounced, but fade away within one quarter, which renders it unduly costly and ineffectual.

In short, timely reforms have to be enacted in order to reduce the burden on the vast majority of the poor and to warrant an equitable income distribution. To ensure an enhanced and successful implementation of these long-term policies, the marginal tax rate needs to be lowered in order to raise the equilibrium employment rate. Thus, once the economy enjoys an upsurge, it will not lead to inflationary pressures. In this case, contractive monetary policy could be avoided so that the economic boom is long-lived.

There is unprecedented potential under any new government that is accountable to its people. But a number of caveats need to be entered. First, much of the debates over tax reforms focus on serving the functions of equity. The choice of the range of activities that are taxed is equally important for both equity and efficiency. It is likewise important to tax fringe benefits, commonly earned by higher income recipients, or else high income earners could end up paying a lower overall rate of tax. Successful reforms also require good communication and a transparent leadership so that the new government is not alienated from its citizens. Broader participation in decision-making and a governance system are the avenues to achieve the societal aspirations of an all-inclusive reform system. Most importantly, in order to ensure that the main demands of the protestors – democracy, freedom and social justice – are consummated, the decision-making machinery should be visionary, evidence-based, transparent, and based on the collaboration between different constituents of the society.

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Appendix 1. Personal Income Tax System in Egypt

Tax Authority	Egyptian Tax Authority
Vision	To raise the rate of sustainable growth to promote employment opportunities, standards of living and quality of life for all Egyptians.
Governance	Annual auditing by the <i>Egyptian General Authority for Auditing</i>
Applicable Law	Income Tax Law No. 187/93 of 1993
Amendments	Income Tax Law No. 91/2005 of 2005
Type of tax	Progressive (4 income brackets)
Tax range	10% - 40% of total income and profit
Coverage	Levied on income & profit received by residents (defined as individuals spending 181 days in Egypt within 12 months) N.B. Egypt exempts capital gains from any sort of taxation
Period of assessment	March 31 - April 1 of every year
Threshold exemption	- US\$730 (LE4000) \cong 31% of GDP per capita - 18.8% of the population is totally relieved of PIT - Total relief \cong LE 15.5b (US\$2.8b)
Auditing taxpayers	A random sample is selected such that a file is inspected every 5 years
Tax Evasion & Noncompliance Penalties	- 10% -100% of tax payment legally due if incorrect information is submitted - 6 months to 5 years prison + 100% of amount legally due
Compliance Incentives	- Voluntary disclosure - Tax deductions in case of advance payments equal to discount rate + 2% - PIT rebates within 45 days after submitting tax statement
Administrative reforms	- Introduction of Compliance model - e-payments - Inquiry call centres - Modernization & introduction of two prototype exemplary tax units - <i>Large Taxpayers Center</i> handles taxes for the 2,000 largest taxpayers - One stop-shop for taxpayers to pay PIT and NIT
Training	- Income Tax Training Institute - Computer Training Center - Mass media campaign to educate taxpayers of self assessment
Governance	- Egyptian Accounting Standards
Strengthening compliance	- Smart tax card for each taxpayer - Training to improve selection of audited cases rather than random selection
Results of reforms	- Increase in number of taxpayers by one million individuals

Source: Egyptian Ministry of Finance

Appendix 2. Descriptive Statistics

Variable	Description	Source
y_t	GDP	CAPMAS
π_t	Consumer price index	Central Bank of Egypt
e_t	Level of employment	CAPMAS
r_t	Nominal interest rate	Central Bank of Egypt
g_t	Government expenditure	Ministry of Finance
nit_t	Non-income taxes: Corporate Profits Tax Receipts, Indirect Tax receipts, Social Insurance Contributions, less Net Transfer Payments and subsidies.	
pit_t	Personal income taxes	
α	Coefficients capturing both the automatic elasticity of the 3 fiscal variables (pit , nit , g) to the macroeconomic variables (y , π , r and e) and the unrestricted policy changes in the fiscal variables enacted in response to changes in these macro variables.	
β	Coefficients measuring how the structural shocks to the fiscal variables contemporaneously affect those variables.	
U_t	Vector of reduced-form residuals	
V_b	Vector of structural shocks	

A DISCUSSION PAPER FOR EMERGING MARKETS: THE ROLE OF IMF AND THE WORLD BANK

Edmundo R. Lizarzaburu**, *Anastasios Moysidis, *Julio Quispe Salquero******

Abstract

While both the World Bank and International Monetary Fund, are two separate entities, often not clear the role of each of them is therefore that this paper seeks to consolidate diverse information reviewed from both entities with the purpose of being able to understand the functioning and scope of each of these important institutions that have had successes and setbacks and ultimately have an active role in global finance and economy, despite the many detractors who are at levels world.

There is an anecdote which is worth mentioning. "John Maynard Keynes, recognized at the inaugural meeting of the International Monetary Fund was confused by the names he thought the Fund should be called a bank, and the World Bank should be called a bottom. Confusion has reigned ever since. The Bank and the IMF are two intergovernmental pillars supporting the structure of economic and financial world".

The fundamental difference between the two is understood as: the Bank institution primarily for the development, while the IMF is a cooperative institution that seeks to maintain an orderly system of payments and receipts between nations.

The manner followed to choose the head of each organization has a different procedure, but the important thing is that in the next few years, several countries such as Brazil, India have more active participation and Latin America as a group may perhaps lead some of them.

Keywords: International Monetary Fund, World Bank, Funding, Cooperation, Differences

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1. Size and Structure

Some experts believe that the IMF is an organization smaller and, unlike the World Bank, has a not active affiliate or subsidiaries. It is important to note that most members of its staff working in offices in Washington, DC, despite three small offices are held in Paris, Geneva and United Nations in New York.

The World Bank's structure is more complex. The World Bank itself has within its structure, two major organizations: the International Bank for Reconstruction and Development and the International Development Association (IDA).

"Moreover, associated with, but legally and financially separate from the World Bank are the International Finance Corporation, which mobilizes funding for private enterprises in developing countries, the International Center for Settlement of Investment Disputes, and the Multilateral Guarantee Agency.

With over 7,000 staff members, the World Bank Group is about three times as large as the IMF, and

maintains about 40 offices throughout the world, although 95 percent of its staff works at its Washington, D.C., headquarters. The Bank employs a staff with an astonishing range of expertise: economists, engineers, urban planners, agronomists, statisticians, lawyers, portfolio managers, loan officers, project appraisers, as well as experts in telecommunications, water supply and sewerage, transportation, education, energy, rural development, population and health care, and other disciplines"¹.

The World Bank and IMF are considered financial providers of key loans to countries unable to borrow elsewhere, consider this comment to realities of the 90s but, in the 21st century this situation has change and more countries could access to capital markets. Rich or wealthy governments and private banks are the main source of loans to poor countries, this redistribution under the concept of "optimal

1 David D. Driscoll, 1996

resources" to "interest rates" affordable represents a positive aspect to mention in this paper.^{2 3}.

2. Source of Funding

The World Bank is an investment bank, intermediating between investors and recipients, borrowing from the one and lending to the other. Its owners are the governments of its more than 180 member nations with equity shares in the Bank. The IBRD obtains most of the funds it lends to finance development by market borrowing through the issue of bonds (which carry an AAA rating because repayment is guaranteed by member governments) to individuals and private institutions in more than 100 countries. Its concessional loan associate, IDA, is largely financed by grants from donor nations. The Bank is a major borrower in the world's capital markets and the largest nonresident borrower in virtually all countries where its issues are sold. It also borrows money by selling bonds and notes directly to governments, their agencies, and central banks. The proceeds of these bond sales are lent in turn to developing countries at affordable rates of interest to help finance projects and policy reform programs that give promise of success.

Each member contributes to this pool of resources a certain amount of money proportionate to its economic size and strength (richer countries pay more, poorer less). While the Bank borrows and lends, the IMF is more like a credit union whose members have access to a common pool of resources (the sum total of their individual contributions) to assist them in times of need. Although under special and highly restrictive circumstances the IMF borrows from official entities (but not from private markets), it relies principally on its quota subscriptions to finance its operations. The adequacy of these resources is reviewed every five years.

Recipients of Funding

“Neither wealthy countries nor private individuals borrow from the World Bank, which lends only to creditworthy governments of developing nations. The poorer the country, the more favorable the conditions under which it can borrow from the Bank. Developing countries whose per capita gross national product (GNP) exceeds \$1,305 may borrow from the IBRD. (Per capita GNP, a less formidable term than it sounds, is a measure of wealth, obtained by dividing the value of goods and services produced in a country

during one year by the number of people in that country.)

These loans carry an interest rate slightly above the market rate at which the Bank itself borrows and must generally be repaid within 12-15 years. The IDA, on the other hand, lends only to governments of very poor developing nations whose per capita GNP is below \$1,305, and in practice IDA loans go to countries with annual per capita incomes below \$865. IDA loans are interest free and have a maturity of 35 or 40 years.

In contrast, all member nations, both wealthy and poor, have the right to financial assistance from the IMF. Maintaining an orderly and stable international monetary system requires all participants in that system to fulfill their financial obligations to other participants. Membership in the IMF gives to each country that experiences a shortage of foreign exchange--preventing it from fulfilling these obligations--temporary access to the IMF's pool of currencies to resolve this difficulty, usually referred to as a balance of payments problem. These problems are no respecter of economic size or level of per capita GNP, with the result that over the years almost all members of the IMF, from the smallest developing country to the largest industrial country, have at one time or other had recourse to the IMF and received from it financial assistance to tide them over difficult periods. Money received from the IMF must normally be repaid within three to five years and in no case later than ten years.

Interest rates are slightly below market rates, but are not as concessional as those assigned to the World Bank's IDA loans. Through the use of IMF resources, countries have been able to buy time to rectify economic policies and to restore growth without having to resort to actions damaging to other members' economies⁴.

“For the World bank and IMF to approve loans and grants, a standard policy package was imposed upon the borrowers. This was a necessary precaution to ensure that the borrowers would repay the loans. The standard policy package was termed Structural Adjustment Programme (“SAP”)⁵.

By the same token, the lenders elucidate that the SAP was aimed at correcting trade imbalances and government financial deficits. SAP involves cutting back the role of the state and promoting the role of the private sector.

The ideology behind these policies are often labeled “neo-liberalism”, “free market

² Ibid, pp.74-75.

³ Kingston, Christina, Irikana, Godspower Jackson, Dienye, Victory Uchechukwu and Kingston, Kato ogo, *The Impacts of the World Bank and IMF Structural Adjustment Programmes on Africa: The Case Study of Cote D'Ivoire, Senegal, Uganda, and Zimbabwe* (2011). *Sacha Journal of Policy and Strategic Studies*, Vol. 1, No. 2, pp. 110-130, 2011 . Available at SSRN: <http://ssrn.com/abstract=2056391>

⁴ The IMF and the World Bank: How Do They Differ?, Pag. 56-994

⁵ Bird, Graham and Dane Rowlands, “The Catalyzing Role of Policy –Based Lending by the IMF and the World Bank: Fact or Fiction?” *Journal of International Development* 12, 2000, pp. 951-973.

fundamentalism”, or simply put, the “Washington Consensus.”⁶

3. World Bank Operations⁷

The World Bank aims to encourage countries to improve their living standards, economic and social, focusing on development. The channels used to encourage this development are technical assistance and funding for projects and policies or guidelines that will realize the economic potential of countries. In the material reviewed, the Bank believes that the long-term, integrated effort. During the first two decades of its existence, two-thirds of the assistance provided by the Bank was intended for electric power and transportation projects, but now areas or sectors are more diverse, with the development pillar of the nations.

“The Bank will consider with special attention to projects that directly benefit the poorest people in developing countries, the social component is an important variable in their analysis process. On this point, the direct participation of the poorest in economic activity is being promoted through loans for the development of various sectors such as agriculture and rural small-scale enterprises, and urban development. While not a direct payment, this is channeled by some entity in the country receiving the benefit”⁸.

The Bank provides most of its financial and technical assistance to developing countries by supporting specific projects that has direct impact in their population. Although IBRD loans and IDA credits are made on different financial terms, the two institutions use the same standards (scoring or procedures) in assessing the soundness of projects. The decision whether a project will receive IBRD or IDA financing depends on the economic condition of the country and not on the characteristics of the project.

Its borrowing member countries also look to the Bank as a source of technical assistance. By far the largest element of Bank-financed technical assistance--running over \$1 billion a year recently--is that financed as a component of Bank loans or credits extended for other purposes. But the amount of Bank-financed technical assistance for free-standing loans and to prepare projects has also increased. The Bank serves as executing agency for technical assistance projects financed by the United Nations Development Program in agriculture and rural development, energy, and economic planning. In response to the

economic climate in many of its member countries, the Bank is now emphasizing technical assistance for institutional development and macroeconomic policy formulation.

Every project supported by the Bank is designed in close collaboration with national governments and local agencies, and often in cooperation with other multilateral assistance organizations. Indeed, about half of all Bank-assisted projects also receive co financing from official sources, that is, governments, multilateral financial institutions, and export-credit agencies that directly finance the procurement of goods and services, and from private sources, such as commercial banks.

In making loans to developing countries, the Bank does not compete with other sources of finance. It assists only those projects for which the required capital is not available from other sources on reasonable terms. Through its work, the Bank seeks to strengthen the economies of borrowing nations so that they can graduate from reliance on Bank resources and meet their financial needs, on terms they can afford directly from conventional sources of capital.

The range of the Bank's activities is far broader than its lending operations. Since the Bank's lending decisions depend heavily on the economic condition of the borrowing country, the Bank carefully studies its economy and the needs of the sectors for which lending is contemplated. These analyses help in formulating an appropriate long-term development assistance strategy for the economy.

Graduation from the IBRD and IDA has occurred for many years. Of the 34 very poor countries that borrowed money from IDA during the earliest years, more than two dozen have made enough progress for them no longer to need IDA money, leaving that money available to other countries that joined the Bank more recently. Similarly, about 20 countries that formerly borrowed money from the IBRD no longer have to do so. An outstanding example is Japan. For a period of 14 years, it borrowed from the IBRD. Now, the IBRD borrows large sums in Japan.

4. IMF Operations⁹

The IMF¹⁰ has gone through two distinct phases in its 50-year history. During the first phase, ending in 1973, the IMF oversaw the adoption of general convertibility among the major currencies, supervised a system of fixed exchange rates tied to the value of gold, and provided short-term financing to countries in need of a quick infusion of foreign exchange to keep their currencies at par value or to adjust to

⁶ Bird, Graham, “Borrowing from the IMF: The Policy Implications of Recent Empirical Research” World Development 24, 1996, pp. 1753-1760.

⁷ Bond, P. (2004). Should the World Bank and IMF be “Fixed” or “Nixed”? Reformist Posturing and Popular Resistance. *Capitalism, Nature, Socialism*, Vol 15: 2, 85-105.

⁸ Andersen, T.B., H. Hansen and T. Markussen (2005). ‘US politics and World Bank IDA Lending’, Discussion Paper, Institute of Economics University of Copenhagen, May.

⁹ IMF 2010b.

¹⁰ Saner, R. & Guilherme, R. (2007). The International Monetary Fund's Influence on Trade Policies of Low-income Countries: A valid Undertaking? *Journal of World Trade*, Vol 41: 5, 931-981.

changing economic circumstances. Difficulties encountered in maintaining a system of fixed exchange rates gave rise to unstable monetary and financial conditions throughout the world and led the international community to reconsider how the IMF could most effectively function in a regime of flexible exchange rates. After five years of analysis and negotiation (1973-78), the IMF's second phase began with the amendment of its constitution in 1978, broadening its functions to enable it to grapple with the challenges that have arisen since the collapse of the par value system. These functions are three.

First, the IMF continues to urge its members have let their currencies to the unrestricted exchange for currencies of other members. But this is interesting and perhaps contradictory, if we consider that BIS considers only "G7" currencies and in some cases may include others to maintain international savings. This is known as coins that are "delivery" and those that are "non delivery"

Second, in place of member compliance monitoring obligations in a fixed exchange rate system, the IMF monitors the economic policies that affects their balance of payments current environment legalized flexible exchange rate. This aspect is interesting considering that often is not the "right way"; we knew the case of Argentina and more recently in several European countries. Something that still does not change, is the process of "des-dollarization of the economy," that it is important in order to generate better controls and especially strengthen in the currency of each country. Whenever the IMF will have an advisory role, but we believe that, this should be "tropicalized" understanding the joints and particularities of each country and not assume that, for the neighbors or strong trade and cultural, which is applied in a country can do or apply "equal" in another.

Third, the IMF continues to provide financial assistance in the short and medium term to members running on temporary balance of payments, of course. Besides, the IMF could help to develop capital markets, following the experience that we have in Mexico, Colombia and Peru. It is important that this aid will "creating value" and not just force to "realize" that at the end, could generate problem in the market and with the participants.

As an IMF member, a country finding itself in this bind can turn to the IMF for consultative and financial assistance. In a collaborative effort, the country and the IMF can attempt to root out the causes of the payments imbalance by working out a comprehensive program that, depending on the particulars of the case, might include raising producer prices paid to farmers so as to encourage agricultural production and reverse migration to the cities, lowering interest rates to expand the supply of credit, and adjusting the currency to reflect the level of world prices, thereby discouraging imports and raising the competitiveness of exports.

Because reorganizing the economy to implement these reforms is disruptive and not without cost, the IMF will lend money to subsidize policy reforms during the period of transition. To ensure that this money is put to the most productive uses, the IMF closely monitors the country's economic progress during this time, providing technical assistance and further consultative services as needed.

In addition to assisting its members in this way, the IMF also helps by providing technical assistance in organizing central banks, establishing and reforming tax systems, and setting up agencies to gather and publish economic statistics. The IMF is also authorized to issue a special type of money, called the SDR, to provide its members with additional liquidity. Known technically as a fiduciary asset, the SDR can be retained by members as part of their monetary reserves or be used in place of national currencies in transactions with other members. To date the IMF has issued slightly over 21.4 billion SDRs, presently valued at about U.S. \$30 billion.

Over the past few years, in response to an emerging interest by the world community to return to a more stable system of exchange rates that would reduce the present fluctuations in the values of currencies, the IMF has been strengthening its supervision of members' economic policies. Provisions exist in its Articles of Agreement that would allow the IMF to adopt a more active role, should the world community decide on stricter management of flexible exchange rates or even on a return to some system of stable exchange rates.

Measuring the success of the IMF's operations over the years is not easy, for much of the IMF's work consists in averting financial crises or in preventing their becoming worse. Most observers feel that merely to have contained the debt crisis of the 1980s, which posed the risk of collapse in the world's financial system, must be counted a success for the IMF. The Fund has also gained some recognition for assisting in setting up market-based economies in the countries of the former Soviet Union and for responding swiftly to the Mexican peso crisis in 1994, but its main contribution lies in its unobtrusive, day-to-day encouragement of confidence in the international system. Nowhere will you find a bridge or a hospital built by the IMF, but the next time you buy a Japanese camera or drive a foreign car, or without difficulty exchange dollars or pounds for another currency while on holiday, you will be benefiting from the vast increase in foreign trade over the past 50 years and the widespread currency convertibility that would have been unimaginable without the world monetary system that the IMF was created to maintain.

The theoretical debate over IMF intervention in debt rescheduling illustrates the implications of the three theoretical perspectives. In the functionalist view, the institutions of the debt regime—the IMF, the Paris Club, and the London Club—reflect the

creditors' attempts to cope with moral hazard problems, which generate transaction costs. Creditors attempt to screen potential reschedules to determine their commitment to economic reform and repayment; borrowers attempt to signal their commitment to these virtues, but also face incentives to demonstrate their need for debt relief (Cole et al. 1995)¹¹.

5. Cooperation Between World Bank¹² and IMF¹³

Although the Bank and IMF are distinct entities, they work together in close cooperation to their members. This cooperation, present since their founding, has become more pronounced since the 1970s. Since then the Bank's activities have increasingly reflected the realization that the pace of economic and social development accelerates only when sound underlying financial and economic policies are in place.

The IMF has also recognized that unsound financial and economic policies are often deeply rooted in long-term inefficient use of resources that resists eradication through short-term adaptations of financial policies. It does little good for the Bank to develop a long-term irrigation project to assist, say, the export of cotton, if the country's balance of payments position is so chaotic that no foreign buyers will deal with the country. On the other hand, it does little good for the IMF to help establish a sound exchange rate for a country's currency, unless the production of cotton for export will suffice to sustain that exchange rate over the medium to long term. The key to solving these problems is seen in restructuring economic sectors so that the economic potential of projects might be realized throughout the economy and the stability of the economy might enhance the effectiveness of the individual project.

The main objective of structural-adjustment lending is to restructure a developing country's economy as the best basis for sustained economic growth. Loans support programs that are intended to anticipate and avert economic crises through economic reforms and changes in investment priorities.

Dreher (2004) takes a public choice perspective, arguing that the IMF prefers to impose as many conditions as possible in order to increase the prestige, budget and organizational slack of the

organization, and explains variations in the number of conditions in terms of shifts in the relative bargaining power of the Fund and its borrowers. As evidence, he cites associations between the number of conditions and weak current accounts and heavy dependence on financing from the IMF and World Bank.

In contrast, Stone (2008) finds that while countries apparently desire to minimize conditionality, the Fund often refrains from imposing maximum conditionality when it is in a strong bargaining position. In addition, countries that receive substantial amounts of U.S. foreign aid are subject to more stringent applications of conditionality when their need for IMF support is greatest.

Focusing on structural reform in recent years has resulted in considerable convergence in the efforts of the Bank and IMF and has led them to greater reliance on each other's special expertise. This convergence has been hastened by the debt crisis, brought on by the inability of developing countries to repay the enormous loans they contracted during the late 1970s and early 1980s. The debt crisis has emphasized that economic growth can be sustained only when resources are being used efficiently and that resources can be used efficiently only in a stable monetary and financial environment.

The bedrock¹⁴ of cooperation between the Bank and IMF is the regular and frequent interaction of economists and loan officers who work on the same country. The Bank staff brings to this interchange a longer-term view of the slow process of development and a profound knowledge of the structural requirements and economic potential of a country. The IMF staff contributes its own perspective on the day-to-day capability of a country to sustain its flow of payments to creditors and to attract from them investment finance, as well as on how the country is integrated within the world economy. This interchange of information is backed up by a coordination of financial assistance to members. For instance, the Bank has been approving structural- or sector-adjustment loans for most of the countries that are taking advantage of financial assistance from the IMF. In addition, both institutions encourage other lenders, both private and official, to join with them in co financing projects and in mobilizing credits to countries that are in need. Cooperation between the Bretton Woods Institutions has two results: the identification of programs that will encourage growth in a stable economic environment and the coordination of financing that will ensure the success of these programs. Other lenders, particularly commercial banks, frequently make credits available only after seeing satisfactory performance by the borrowing country of its program of structural adjustment.

The Bank and the IMF have distinct mandates that allow them to contribute, each in its own way, to

¹¹ Cole, H. L., Dow, J., & English, W. B. (1995). *International Economic Review*, 36, 365–385.

¹² The President of the Bank, currently Jim Yong Kim, is responsible for chairing the meetings of the Boards of Directors and for overall management of the Bank. Traditionally, the Bank President has always been a US citizen nominated by the United States, the largest shareholder in the bank. The nominee is subject to confirmation by the Board of Executive Directors, to serve for a five-year, renewable term.

¹³ On June 28, 2011 Christine Lagarde was confirmed as Managing Director of the IMF for a five-year term starting on July 5, 2011.

¹⁴ The IMF and the World Bank: How Do They Differ?, Pag. 56-994

the stability of the international monetary and financial system and to the fostering of balanced economic growth throughout the entire membership.

Since their founding more than 60 years ago, both institutions have been challenged by changing economic circumstances to develop new ways of assisting their membership. The Bank has expanded its assistance from an orientation toward projects to the broader aspects of economic reform. Simultaneously the IMF has gone beyond concern with simple balance of payment adjustment to interest

itself in the structural reform of its members' economies.

Some overlapping by both institutions has inevitably occurred, making cooperation between the Bank and the IMF crucial. Devising programs that will integrate members' economies more fully into the international monetary and financial system and at the same time encourage economic expansion continues to challenge the expertise of both Breton Woods Institutions.

Table 1. "The International Monetary Fund and the World Bank at a Glance"

International Monetary Fund	World Bank
<ul style="list-style-type: none"> • oversees the international monetary system • promotes exchange stability and orderly exchange relations among its member countries • assists all members--both industrial and developing countries--that find themselves in temporary balance of payments difficulties by providing short- to medium-term credits • supplements the currency reserves of its members through the allocation of SDRs (special drawing rights); to date SDR 21.4 billion has been issued to member countries in proportion to their quotas • draws its financial resources principally from the quota subscriptions of its member countries • has at its disposal fully paid-in quotas now totaling SDR 145 billion (about \$215 billion) • has a staff of 2,300 drawn from more than 182 member countries 	<ul style="list-style-type: none"> • seeks to promote the economic development of the world's poorer countries • assists developing countries through long-term financing of development projects and programs • provides to the poorest developing countries whose per capita GNP is less than \$865 a year special financial assistance through the International Development Association (IDA) • encourages private enterprises in developing countries through its affiliate, the International Finance Corporation (IFC) • acquires most of its financial resources by borrowing on the international bond market • has an authorized capital of \$184 billion, of which members pay in about 10 percent • has a staff of 7,000 drawn from 180 member countries"

* David D. Driscoll, 1996

6. Conclusions and comments

We consider important to start the conclusions mentioned that there is ample evidence that G7 countries, and in particular the United States, make some kind of pressure on governments to vote in line with them in the General Assembly. As outlined above, G7 countries can to some extent control IMF and World Bank decisions, and can thereby use the international organizations to influence recipient countries' behavior in ways compatible with their interests.

The differences between them are clear in terms of definition but in the emerging economies sometimes it is necessary to understand each function in order to maintain strong relationship with them. The World Bank provides loans to developing countries for capital programs. The World Bank's official goal is the reduction of poverty. The IMF

works to improve the economies of its member countries

The guidelines mentioned by the WB and IMF where taken by the Basel III, but it is necessary to clarify the real impact in emerging economies. How manage information and the quality of it is an aspect that in the future the academics and practitioners have to analyze and study in the relation with WB and IMF recommendations.

The aspects related to Governance and how manage and identify stakeholders will become an important aspects that the IMF and WB have to study and evaluate not only in their members but also in the companies that have operations in their countries (for instance social impact).

One of the most positive contributions from IMF to emerging economies is the Public Debt management recommendations that helped them to create their Market Markers Programs. We have the experience from Peru and Colombia.

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MEASURING THE QUALITY OF BANKING SUPERVISION REVISITED ASSESSMENTS BY GERMAN BANKS BEFORE AND DURING THE FINANCIAL CRISIS

Stephan Paul*, Stefan Stein**, André Uhde***

Abstract

This contribution presents and discusses main results of a new survey on the assessment of supervisory quality among German banks. In particular, it is analyzed if and how supervised banks' perception of the quality of supervisory authorities and their instruments has changed due to the financial crisis starting in mid-2007. Subsequently, results from the recent survey are compared with findings provided by a former study carried out by the authors in 2006 (Paul, Stein and Uhde, 2008).

Keywords: Banking Supervision, Quality, Assessment, Banking sector

JEL classification: G21; G28

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1. Introduction

In recent years banking supervision in Germany has been heavily discussed among politicians, academics and representatives of all sectors of the banking industry. Next to an increase in the complexity of banking supervisory processes and instruments after having implemented Basel II regulations into German Banking Law, it has especially been discussed if excessive banking regulation and supervision in Germany might lead to a higher regulatory and bureaucratic burden, and hence might distort the level playing field of competition between German and foreign banks. In addition and more specific as regards Germany, it has also been debated, if the allocation of supervisory responsibilities between both supervisory authorities, namely *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin) and *Deutsche Bundesbank* (Bundesbank), may be hindering to an efficient and effective banking supervision.

Banking regulators and supervisors in Germany have replied to this criticism suggesting that they have increased efforts to create more “customer orientation”. Thus, in 2006 *Jochen Sanio*, then President of the *BaFin*, declared that prospective banking supervision in Germany should be based on a

business partnership between supervisory authorities and banks acting as “clients”. Accordingly, accepting that regulation is not only an administrative act but rather that there is “a market for regulation” banks should be considered as “demanders of regulation”.

This change in the basic idea of traditional banking regulation and supervision can be explained taking into account that the banks' credit business has become less important while investment banking and “financial engineering” have become more important over time. As a consequence, while the banks' credit risk can be handled through cross-border coordination between regulators and supervisors and harmonized quantitative regulations, a standardization of regulations concerning market risks is less possible. Accordingly, in order to overcome the lack of knowledge as regards the banks' market risk exposures and risks inherent in financial instruments, regulators and supervisors have to learn from banks under the framework of a more “qualitative” banking regulation as implemented by Basel II. Thus, it is suggested that especially supervisors will gain a deeper insight into the banks' overall risk exposures when reviewing and approving the banks' internal risk management models and processes during the *Supervisory Review and Evaluation Process* (SREP).

Against this background, in 2006 the authors of the contribution at hand conducted a survey (henceforth Survey-2006) in cooperation with the German Federal Ministry of Finance (BMF) and Deutsches Institut für Wirtschaftsforschung (DIW) in order to measure the quality of banking supervision as perceived by the entire banking industry in Germany (Paul, Stein and Uhde, 2008; DIW, 2006). As a main result, findings from the Survey-2006 revealed that supervisory institutions in Germany received a considerably better assessment from banks than the public debate had led to expect at that time. Nevertheless, banks being interviewed also stressed that there is still enough room for optimizing supervisory practices and instruments in Germany. In particular, reducing banking supervision to its core tasks, minimizing bureaucratic burden, increasing transparency and communication between banks and regulators as well as clarifying the allocation of supervisory responsibilities between both supervisory institutions in Germany were the primary points of criticism in this context.

Six years later banking markets around the world are infected with the most severe financial crisis that spread from the United States in mid-2007. As a response, enhancements of the international regulatory and supervisory framework have already been realized and further work is under way. In particular, the Basel Committee has finalized its new banking regulatory framework (Basel III) in December 2010 extending single regulations concerning equity capital requirements, the banks' leverage and liquidity positions (BCBS, 2011). Most parts of these recommendations have already been transformed into the *European Capital Requirements Directive* (CRD IV).

Consequently, the importance of reliable supervisory practices and hence, a qualified banking supervision has again moved into the focus of regulators and supervisors. In Germany, the government has recently confirmed the specific system of two coexisting supervisory authorities, a decision that has revived the debate among academics and practitioners about a reasonable organization of banking supervision. At the same time, the *BaFin* has promised to further strengthen the business partnership between supervisory authorities and the banking sector as a response to the global financial crisis (Sanio, 2006, 2011).

Against this background and taking into account main results provided by the former Survey-2006, this paper investigates whether recent actions undertaken by banking regulators and supervisors as a response to the crisis from mid-2007 have improved or worsened the banks' perception of the quality of banking supervision in Germany. Accordingly, changes in the relationship between banks and both German supervisory authorities are analyzed and determinants of the quality of banking supervision are elaborated by means of a new survey.

The remainder of this contribution is organized as follows. Section 2 briefly describes the empirical methodology already employed in the former Survey-2006. Main results of the reassessment by banks in 2010 as well as a comparative analysis considering the evidence provided by the Survey-2006 are presented in Section 3. Finally, Section 4 concludes and outlines recommendations for further optimizing banking supervision in Germany.

2. Methodology

According to an official classification provided by the *Deutsche Bundesbank* nine different banking groups are defined within the German banking industry.¹ Ideally, those German banks being supervised by the *BaFin* should have been object of the survey. However, since there are many small banks operating in Germany, a random sample has been drawn out of the groups of credit cooperatives, savings and commercial banks. With regard to the remaining financial institutions the total number of banks has been too small to draw a sufficient random sample. Instead, these banks were summarized and included in a further group ("others"). Finally, 386 banks were representatively selected (see Table 1).

Following the methodology applied to the former Survey-2006, the selected banks have been interviewed on various supervisory aspects (as discussed in detail in the following) by means of a written questionnaire in October 2010. Due to the fact that questions were only marginally modified for the Survey-2010, there have been no ex ante technical discussions with bank agents as it was the case for the initial survey. This might be a likely reason for a slightly lower but still representative response rate at 20 per cent (in 2006: 25,4 per cent) of the entire population (see Table 1).

¹ These groups are Kreditgenossenschaften, Sparkassen, Kreditbanken, Bausparkassen, Realkreditinstitute, Bürgschaftsbanken, Landesbanken, Banken mit Sonderaufgaben and Genossenschaftliche Zentralbanken.

Table 1. Sample of banks and response rates according to bank group membership

Germany 2010	Total	Sample absolute	Sample percent	Response rate
Credit cooperatives	1139	266	68.9%	23.4%
Savings banks	430	35	9.1%	8.1%
Commercial banks	277	36	9.3%	13.0%
Others	73	49	12.7%	68.1%
Total	1919	386	100%	20.0%

In order to interpret the results from the survey correctly, one has to take into account that credit cooperatives as well as savings banks usually appeal to their respective associations *Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR)* and *Deutscher Sparkassen- und Giroverband (DSGV)* as member banks rather than an official supervisory authority. Both the *BVR* and the *DSGV* consult their member banks in regulatory concerns and dispose of their own supervisory departments and instruments that are partially comparable to those used by official supervisory authorities (e.g. annual audits, special audits). However, corresponding to the Survey-2006 it was again impossible to examine the quality of supervisory action provided by the *BVR* and the *DSGV* in the current Survey-2010.

Banks were faced with statements that had to be rated from 1 (“completely untrue”) to 5 (completely true). Each grade of this scale was weighted with an index value, ranging from 0 points for the value of “1” to 100 points for the value of “5” while “no assessments” were not allowed for linear transformation. In contrast to the Survey-2006 we do not focus on assessments given by single groups of commercial, savings banks and credit cooperatives but rather compare mean index values from the entire sample of selected banks belonging to these three banking groups for the respective years 2006 and 2010. Accordingly, in a first step means of index values are calculated for the entire sample of banks per group in the respective years 2006 and 2010. In a second step mean index values are weighted with a banking sector-specific factor to ensure representativity and comparability between both surveys.¹ In a final step, we perform a two-sided Student’s t-Test to statistically verify whether the answers given in 2006 differ from those provided in 2010. Results are additionally plotted in respective figures.

¹ Moreover, the sector-specific factor takes into account the banks’ affiliation to a certain banking group and thus reconstructs the proportionality of the random sample in relation to the total number banks in Germany in respective years 2006 and 2010.

3. Main results

3.1. Supervisory strategy

Figure 2 presents mean index values for statements concerning the supervisory strategy pursued by the *BaFin* and *Deutsche Bundesbank*. Bank-specific factor-weighted mean index values are shown for the respective years 2006 and 2010.² A mean index value of 70 index points serves as a benchmark provided by a related Norwegian survey (Kredittilsynet, 2006) and also employed in the former Survey-2006. Table 2 presents results from Student’s t-Tests to control for significant differences between respective mean index values. The H_0 to be tested is that mean index values from 2006 equal those observed in 2010.

To begin with, as indicated by Figure 2 and Table 2, the aspect that the supervisory strategy was clear and transparent yields the highest mean index values in both surveys whereas the idea that banking supervisors may positively influence international banking regulation is seen negatively by the entire banking sector in respective years. High scepticism by banks concerning the influence on international banking standard setters may be due to the fact that a flat-rate increase of equity capital requirements as stipulated by the new regulatory framework *Basel III* discriminates the German financial system exhibiting a significantly higher volume of outstanding bank loans (in particular to SMEs) than those financial systems that are based on capital markets like the United States for example. Again, banks are invited to realize regulatory arbitrage as especially those banks will benefit being able to substitute their credit risks by similar market risks, for example by means of securitization. Nevertheless, at least in Germany it was found that insufficient equity capital ratios were

² During the survey from 2010 banks were additionally asked to assess single statements with regard to the time period before the collapse of the U.S. investment bank *Lehman Brothers* indicating the culmination of the financial crises (before autumn 2008) and for the period following this event (after autumn 2008).

not main drivers of the recent crisis for more than 95 percent of the entire number of banks.

Moreover, as shown by Figure 2 and Table 2 most statements provided by the Survey-2010 exhibit significantly lower assessment values by banks compared to the former Survey-2006. In particular, banks are now most sceptical towards the statement that banking supervision may provide “prompt corrective action” in time, supervisors may focus on systematic risk and banking supervision may follow a clear and transparent strategy. However, as expected, the differences between both mean index values for these three statements become smaller for the time period after the collapse of *Lehman Brothers* marking the starting point of numerous bank bailouts that have been enforced in the following. Obviously,

supervisory authorities were not able to prevent Germany’s banking sector from a spill-over of the financial crisis. In contrast, especially government-owned banks were among those financial institutions exhibiting the most severe financial distress during the crisis. Supervisory authorities themselves admit that micro-prudential oversight was not adequate to recognize the actual extent of systemic risk and (resulting) cross-sectional risks inherent in the banking sector during the crisis (Sanio, 2011). However, macro-prudential oversight, being implemented to protect the entire financial system from threats of instability (Sanio, 2011), yet seems to have been insufficiently perceived by interviewed banks.

Figure 2. Supervisory strategy

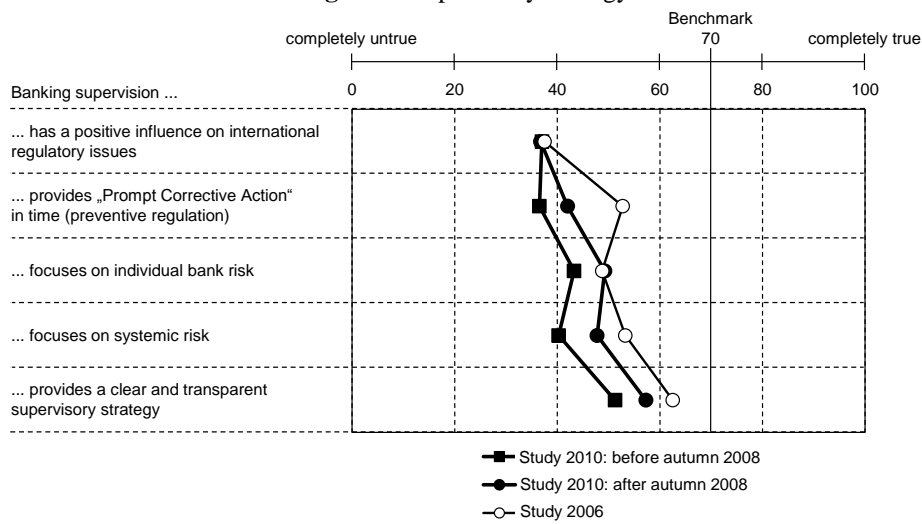


Table 2. Supervisory strategy

	2010 (before autumn 2008)	2006	p-value
Banking supervision...			
... has a positive influence on international regulatory issues	37	38	-
... provides "Prompt Corrective Action" in time	38	53	***
... focuses on individual bank risk	43	49	***
... focuses on systemic risk	40	53	***
... provides a clear and transparent supervisory strategy	51	63	***
	2010 (after autumn 2008)	2006	p-value
Banking supervision...			
... has a positive influence on international regulatory issues	37	38	-
... provides "Prompt Corrective Action" in time	42	53	***
... focuses on individual bank risk	49	49	-
... focuses on systemic risk	48	53	***
... provides a clear and transparent supervisory strategy	57	63	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

Corresponding to previous findings, statements suggesting that regulatory complexity may be consistent with respective regulatory issues and requirements while formal regulations may be reduced to a minimum receive comparatively low values in both surveys (Figure 3 and Table 3). While mean index values have not notably changed for most statements between 2006 and 2010, interviewed

banks now (after autumn 2008) even less observe that they were sufficiently involved in working out regulations. This result is not surprising and might be related to the fact that the Basel Committee as well as national supervisors sought for prompt regulatory response to the financial crisis without involving the banking sector being responsible for the financial turmoil.

Figure 3. Regulations and circulars

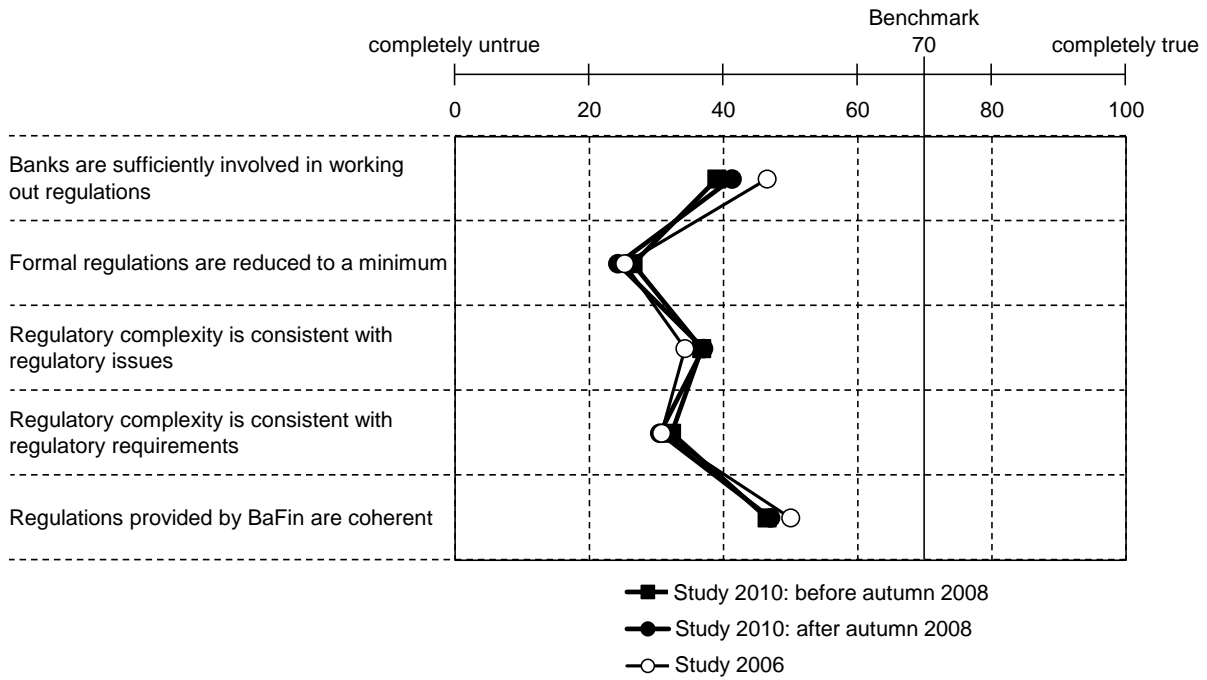


Table 3. Regulations and circulars

	2010 (before autumn 2008)	2006	p-value
Banks are sufficiently involved in working out regulations	39	47	***
Formal regulations are reduced to a minimum	27	25	-
Regulatory complexity is consistent with regulatory issues	37	34	**
Regulatory complexity is consistent with regulatory requirements	32	31	-
Regulations provided by BaFin are coherent	47	50	***
	2010 (after autumn 2008)	2006	p-value
Banks are sufficiently involved in working out regulations	41	47	***
Formal regulations are reduced to a minimum	24	25	-
Regulatory complexity is consistent with regulatory issues	37	34	-
Regulatory complexity is consistent with regulatory requirements	31	31	-
Regulations provided by BaFin are coherent	47	50	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

3.2. Qualitative banking supervision

In late 2005 the *BaFin* announced a framework of minimum requirements concerning the banks' internal risk management ("Mindestanforderungen an das Risikomanagement", MaRisk) to transform the contents of *Basel II, Pillar 2* (Supervisory Review Process, SRP) into German Banking Law. Until today the implementation of the MaRisk as an instrument of a higher level of "qualitative" banking supervision is controversially debated in Germany. In this context main contentious points were the transparency of the MaRisk-framework, the degree of specificity of MaRisk-regulations, the homogeneity of supervisory action according to these regulations and the depth of intervention into the banks rights of disposition (e.g., Paul, 2006).

Findings from the Survey-2006 indicated that regulations were in large parts, but not completely, distinct across the bank-specific risk complexes. In particular, regulations concerning the internal capital adequacy and risk management as well as the banks' credit risk, market risk and even liquidity risk were considered to be most clear. These results were not surprising since detailed regulations on managing credit and market risks had already been implemented within the former *Basel I* accord. In contrast, qualitative regulations concerning the bank's operational risk were less clear-cut due to the fact that *Basel I* did not provide for the management of operational risk at all and hence, supervisors (as well as the banks themselves) were not as familiar with this risk complex as they were with other risk categories. Despite the fact that banks required clarification concerning the management of operational risks, more detailed regulations in the sense of target ideals provided by supervisors were

not seen as helpful as regards this risk complex (Figure 4 and Table 4).

Turning to results from the recent Survey-2010, Figure 4 and Table 4 indicate that mean index values become significantly lower for all statements concerning more detailed regulations on qualitative supervision compared to 2006. Qualitative regulations on the internal capital adequacy yield the highest mean index values during the Survey-2010 confirming previous findings that insufficient equity capital ratios have not been the main reason for the spill-over of the crisis to German banks. In contrast, more detailed regulations on the implementation of an internal risk management and the management of liquidity risks are perceived to be less helpful. Significantly lower assessment values might generally be explained by the fact that extensive and detailed regulation will as such be perceived as counter-productive. Moreover, the banks' internal risk management structures and processes may generally been scrutinized during a crisis episode on the banks' own accord. Similarly, as especially liquidity risks played a pivotal role during the spread of the current financial crisis, banks have now started to generate and further optimize more sophisticated management systems concerning liquidity risk on their own. In this context one cannot rule out that heated discussions concerning an adequate regulation of liquidity risks has amplified negative evaluations by interviewed banks. Note however that answers to this question exhibit a high standard deviation of approximately 25 points either indicating significant differences in supervising banks (which would be problematic from the regulatory point of view) or suggesting a different perception of qualitative supervision by banks resulting from different expectations and attitudes towards this issue.

Figure 4. More detailed regulations on qualitative supervision (MaRisk)

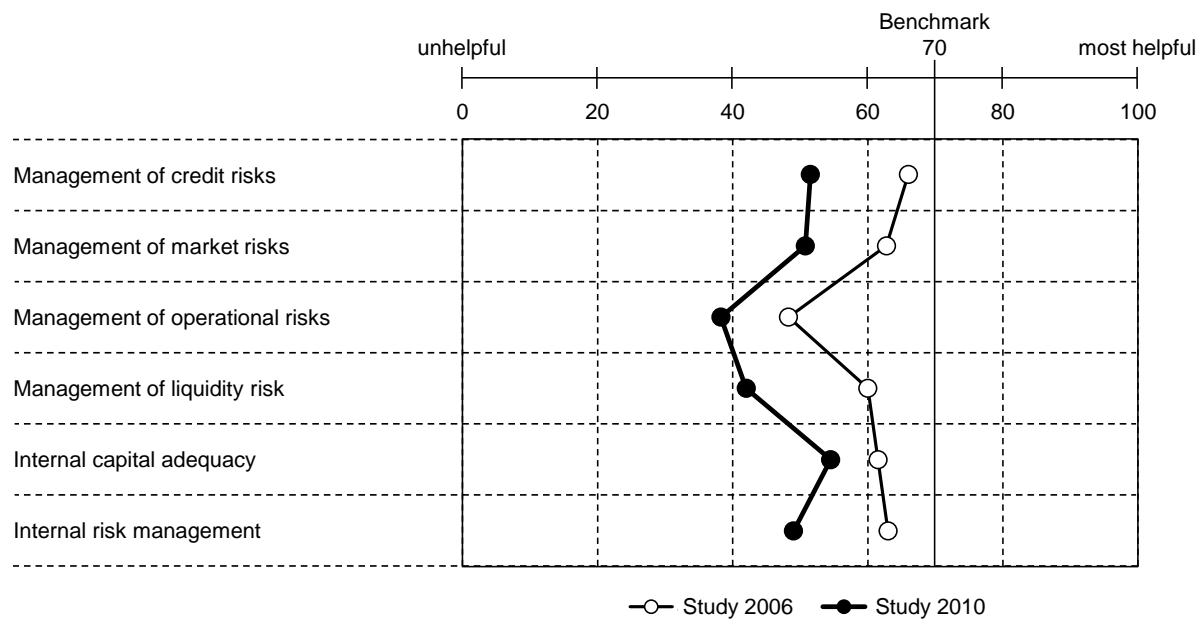


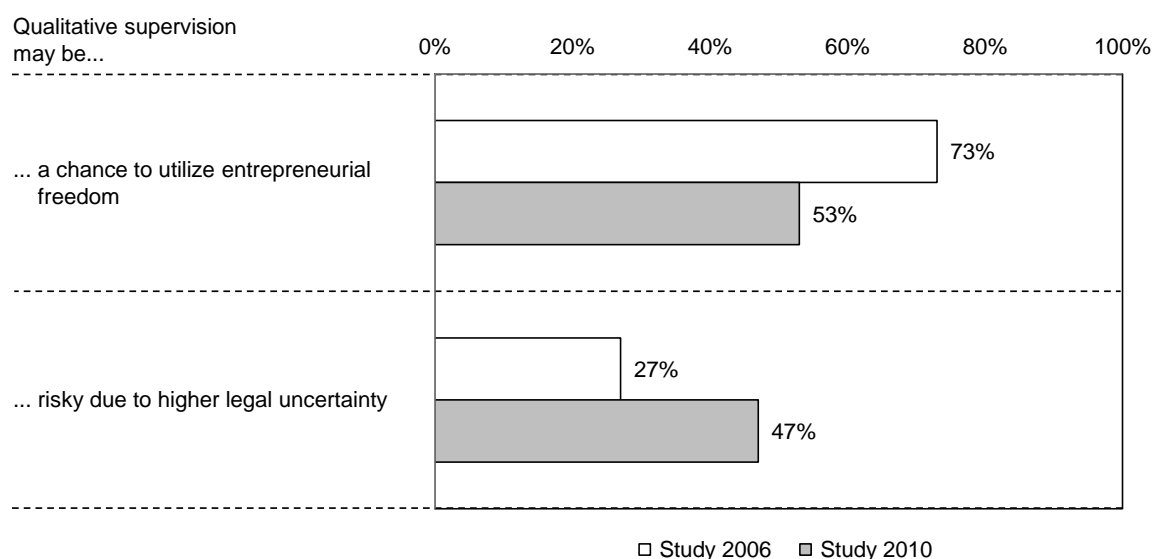
Table 4. More detailed regulations on qualitative supervision (MaRisk)

	2010	2006	p-value
Management of credit risks	54	66	***
Management of market risks	51	63	***
Management of operational risk	38	48	***
Management of liquidity risk	42	60	***
Internal capital adequacy	55	62	***
Internal risk management	49	63	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

In line with this result, statements concerning qualitative supervision during the Survey-2006 already revealed two different types of bank managers. On the one hand, 73 percent of bank managers from all banking groups perceived leeway due to general and unspecific regulations on qualitative supervision as a chance to utilize entrepreneurial freedom. On the other hand, 27 percent of all bank managers interpreted leeway as a potential risk associated with a higher degree of legal

uncertainty. Interestingly, as indicated in Figure 5 the number of sceptics has sharply increased while the number of advocates has notably declined during the last 5 years, now almost balancing the two types of bank managers. Thus, empirical results reveal that objections towards the approach of qualitative banking supervision have increased due to the financial crisis independent from the practical application of and the increasing experience with this kind of supervisory approach

Figure 5. Overall assessment of qualitative supervision



Against the background that the implementation of qualitative banking supervision in Germany has been intensified through the latest amendment of the MaRisk in December 2010 previous assessments by German banks become even more important from the supervisors' point of view. According to the modified MaRisk-regulations German banks are now faced with stronger requirements concerning stress-testing

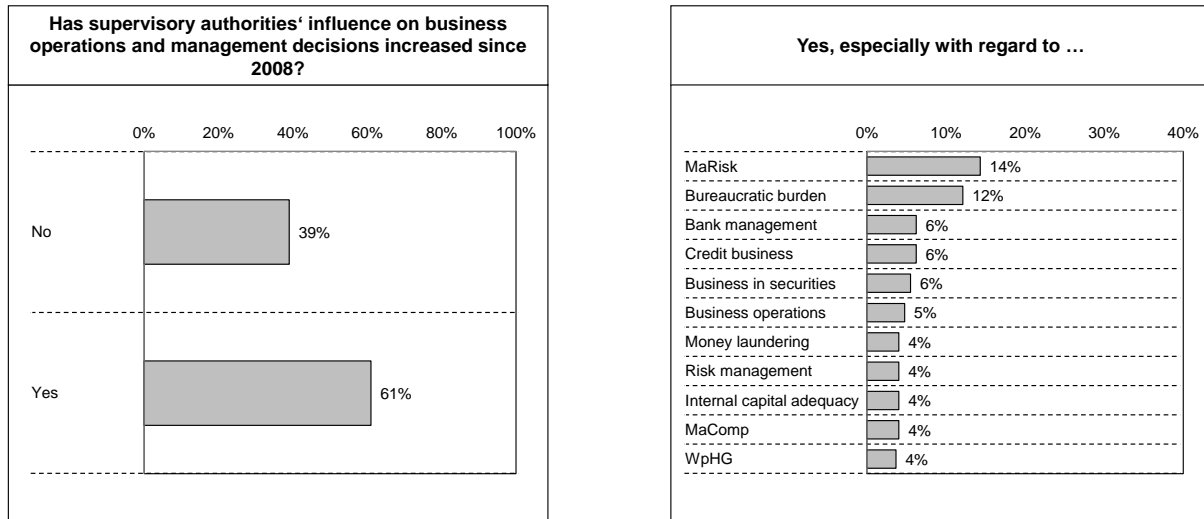
procedures and the management of risk concentration. Moreover, banks are now forced to disclose risk and business strategies in a more comprehensive and detailed manner while the risk-taking capacity of banks gains in importance. Hence, taking into account previous assessments supervisory authorities seem to suffer from a severe lack of communication. It remains to be seen if German

banks will really “live” the respective requirements in their daily business and if supervisory authorities will be able to control and appraise the banks’ efforts.

Finally, as Figure 6 indicates, German banks perceive a stronger influence of supervisors on management decisions and business operations over

time. 61 percent of the interviewed banks confirm this aspect. Nevertheless, arguments supporting this assessment remain vague. At best, the negative perception by banks may result from stronger requirements as regards the MaRisk-regulations as well as an increase in bureaucratic burden.

Figure 6. Supervisory influence



3.4 Supervisory instruments

3.4.1 Supervisory dialogues

Annual supervisory dialogues (on- but also off-site) constitute the main qualitative supervisory instrument. As compared to findings provided by the Survey-2006, these dialogues are still positively assessed by German banks in many aspects (Figure 7, Table 5) without obtaining notable changes.¹ Based on determinants typically used to generally assess the quality of auditing processes (Marten, 1999; Schmidt, 2000), banks in particular stress that supervisory dialogues were performed under strong cooperation with supervisors, supervisors were familiar with the individual bank and dialogues were clearly structured. Each of these aspects has still attained more than 70 index points on the assessment scale. Thus, results indicate a strong relationship between supervisory authorities and banks in Germany which corresponds to findings provided by a related Norwegian study (TNS Gallup, 2010).

However, statements that supervisors were open for the banks’ concerns and dialogues would cover important issues receive lower mean index values

compared to the Survey-2006. We suggest that global prompt-corrective action has gained in importance during the crisis period to prevent from further distress whereas supervisors might have less regard for the individual bank’s specific concerns. Finally, related to the former Survey-2006 assessments of statements concerning benefits and costs emerging from supervisory dialogues remain nearly unchanged. Regarding the assessment of supervisory dialogues in general these statements receive the lowest mean index values while banks still observe higher costs and lower benefits from dialogues.

¹ Taking into account that the relationship between supervisory authorities and interviewed banks is not voluntary but rather originates from a sovereign act of administration, one may expect that bank statements were generally assessed with lower scores than assessments that unregulated service providers would have given instead.

Figure 7. Supervisory dialogues

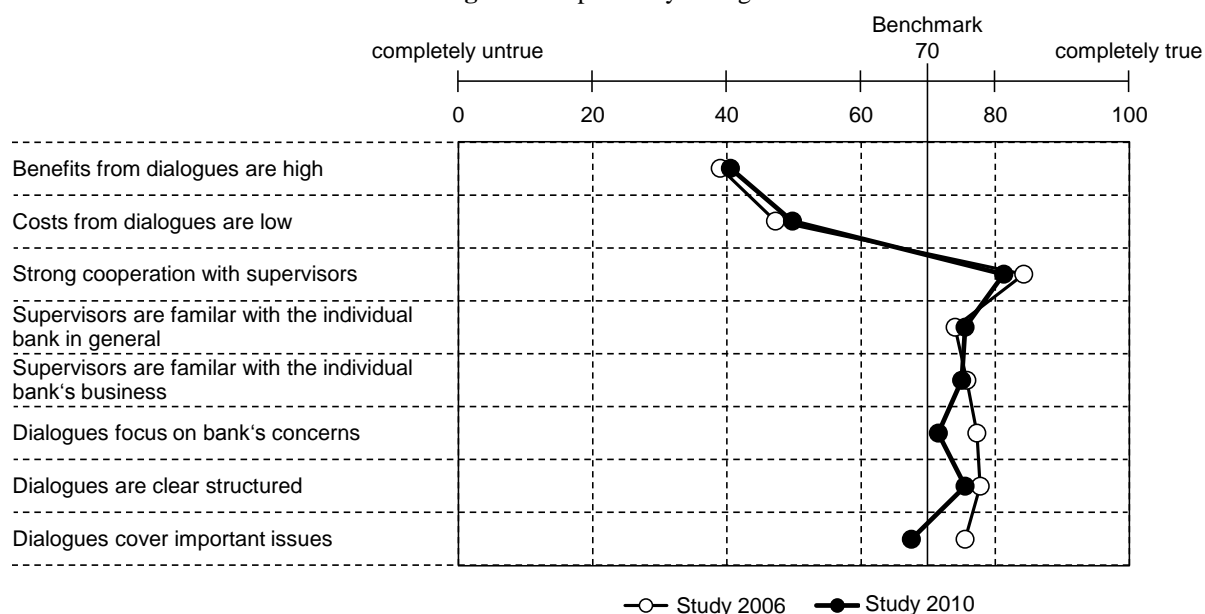


Table 5. Supervisory dialogues

	2010	2006	p-value
Benefits from dialogues are high	39	39	-
Costs from dialogues are low	48	47	*
Strong cooperation with supervisors	80	84	***
Supervisors are familiar with the individual bank in general	75	74	-
Supervisors are familiar with the individual bank's business	74	76	-
Dialogues focus on the bank's concerns	73	77	***
Dialogues are clear structured	75	78	**
Dialogues cover important issues	63	76	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

3.4.2 Special audits

Next to supervisory dialogues and requesting financial reporting information on a regular basis, the *BaFin* can additionally carry out on-site supervisory audits (so called “special audits”) according to § 44 (1) of the German Banking Act (KWG). As shown in Table 6, 62 percent of all interviewed banks point out that the *BaFin* has not once exercised its right to request financial information and documents since

2008 by means of special audits. 34 percent of all interviewed banks have been audited once and only 4 percent have been audited two times or more. In this context, the frequency of audits diverges between banking sectors. The proportion of banks audited at least once since 2008 amounts to 60 percent among commercial banks, 29 percent among credit cooperatives and 42 percent among savings banks.

Table 6. Frequency of special audits since 2008

Total banks		Commercial banks	Credit cooperatives	Savings banks
No special audit	62%			
One special audit	34%	At least one special audit	60%	29%
More than one special audit	4%			42%

Corresponding to findings provided by the Survey-2006, most statements concerning single aspects of special audits in sum yield relatively higher mean index values compared to all other assessment categories (Figure 8, Table 7). In particular, German banks underline the compliance of special audits with the underlying auditing-mandate, the clarity of information requirements ex ante as well as the supervisors' competence during the auditing process. In contrast, banks also stress that auditors were less familiar with the individual bank's characteristics and its business model. Interestingly, statements referring to the adequacy of timeframe exhibit higher mean index values as compared to the Survey-2006 which might be due to the fact that supervisory authorities

were forced to accelerate auditing processes during the crisis period.

As compared to other aspects costs and benefits resulting from special audits are perceived more critically. Respective statements show the lowest mean index values in this category. As indicated in Figure 8 and Table 7, while the assessment of costs from special audits has not notably changed German banks perceive higher benefits from special auditing compared to assessments provided by the Survey-2006. Nevertheless, since only 25 percent of interviewed banks anticipate a genuine benefit from special audits at all one may scrutinize if the *BaFin's* strategy to build up a partnership with banks by providing them with consulting services of the highest quality is actually credible.

Figure 8. Special audits (§ 44 KWG)

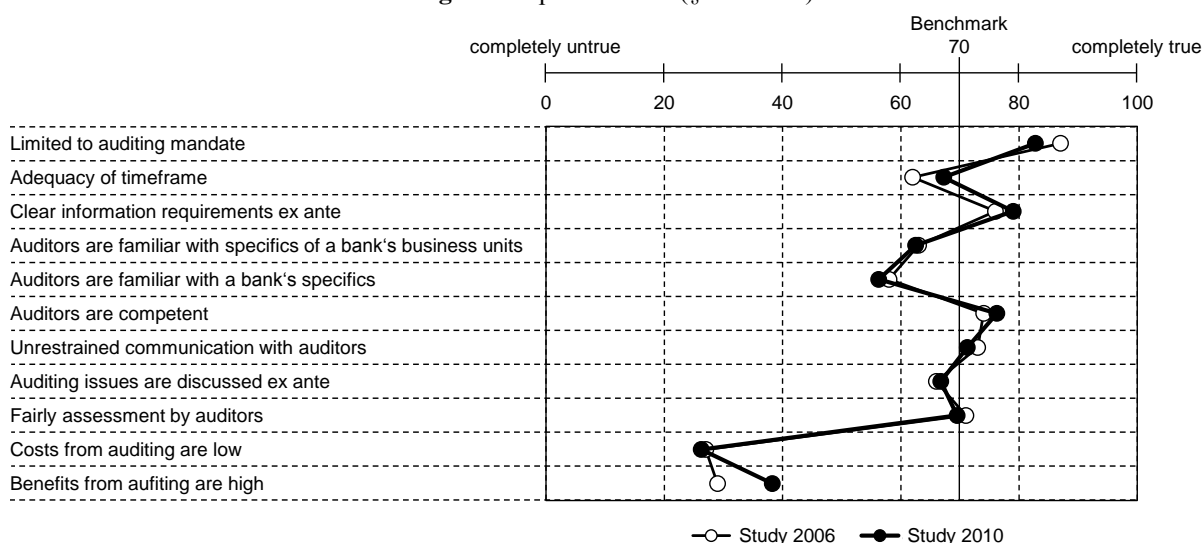


Table 7. Special audits (§ 44 KWG)

	2010	2006	p-value
Limited to auditing mandate	83	87	***
Adequacy of timeframe	67	62	***
Clear information requirements ex ante	79	76	***
Auditors are familiar with specifics of the bank's business units	63	63	***
Auditors are familiar with the bank's specifics	56	58	***
Auditors are competent	76	74	**
Unrestrained communication with auditors	71	73	-

Auditing issues are discussed ex ante	67	66	-
Fairly assessment by auditors	70	71	*
Costs from auditing are low	26	27	-
Benefits from auditing are high	38	29	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

3.5. Supervisory personnel and coordination between supervisory authorities

In line with results from the former Survey-2006 interviewed banks point out that overall satisfaction with the *Bundesbank's* personnel is consistently higher than it is with supervisors from the *BaFin* (Figure 9, Table 8). In fact, this margin has even broadened between 2006 and 2010. Supervisors acting on behalf of the *BaFin* are seen more critically during the recent Survey-2010. Instead, banks particularly emphasize that *Bundesbank's* supervisors

are more competent (exhibit more expert and practical knowledge) and act more pragmatically and faster. In sum, results challenge the German Ministry's decision from end 2010 proposing that supervisory responsibilities should not be bundled within one authority but that regulatory power of the *BaFin* should be strengthened instead (Paul, 2010). Taking into account previous assessment results, the more promising strategy would be that the two authorities should not be played off against each other but represent themselves as one independent institution resisting all attempts of bank lobbyism.

Figure 9. Supervisory personnel

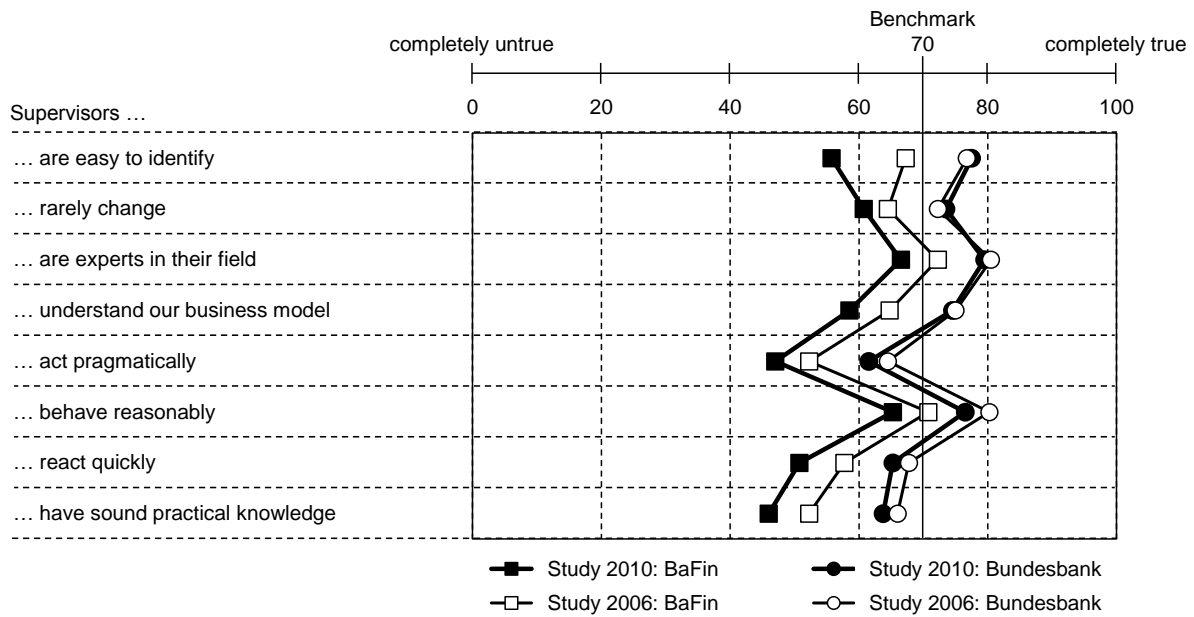


Table 8. Supervisory personnel

	2010	2006	p-value
BaFin			
...are easy to identify	56	67	***
...rarely change	61	65	*
...are experts in their field	67	72	***
...understand our business	59	65	***
...are pragmatic	47	52	***
...behave reasonably	65	71	***
...react quickly	51	58	***
...have sound practical knowledge	46	52	***
Bundesbank			
...are easy to identify	78	77	-
...rarely change	74	72	-
...are experts in their field	80	81	*
...understand our business	75	75	-
...are pragmatic	62	65	***
...behave reasonably	77	80	***
...react quickly	65	68	**
...have sound practical knowledge	64	66	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

Finally, related to the Survey-2006 the coordination between *Bundesbank* and *BaFin* is seen more critical by interviewed banks in 2010 (Table 9). This result becomes even more important for Germany as the BMF has commissioned a guideline in February 2008 (“*Aufsichtsrichtlinie*”) in order to

optimize interaction between both supervisory authorities. Thus, even if there has been any effort to improve interaction between both institutions, our findings suggest that German banks may have not perceived them.

Table 9. Coordination between BaFin and Bundesbank

	2010	2006	p-value
Close coordination between authorities	55	59	**
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

3.6. Overall satisfaction with the quality of banking supervision

Figure 10 and Table 10 indicate that the banks' overall satisfaction with banking supervision quality

has decreased from 51 to 46 index points compared to the Survey-2006. The fact that interviewed banks submit a worse assessment concerning banking supervision quality in general whereas they evaluate more specific supervisory dialogues and personnel

more positively has also been suggested by related research on consumer satisfaction in banking. Providing evidence that bank customers typically evaluate bank consultants more positively than the bank itself (e.g., Commerzbank, 2010) it is suggested

that these evaluation differences may be the result of either a well-functioning social interaction between customer and consultant or possibly the effectiveness of dedicated consultants and their personal engagement.

Figure 10. Overall satisfaction with the quality of banking supervision

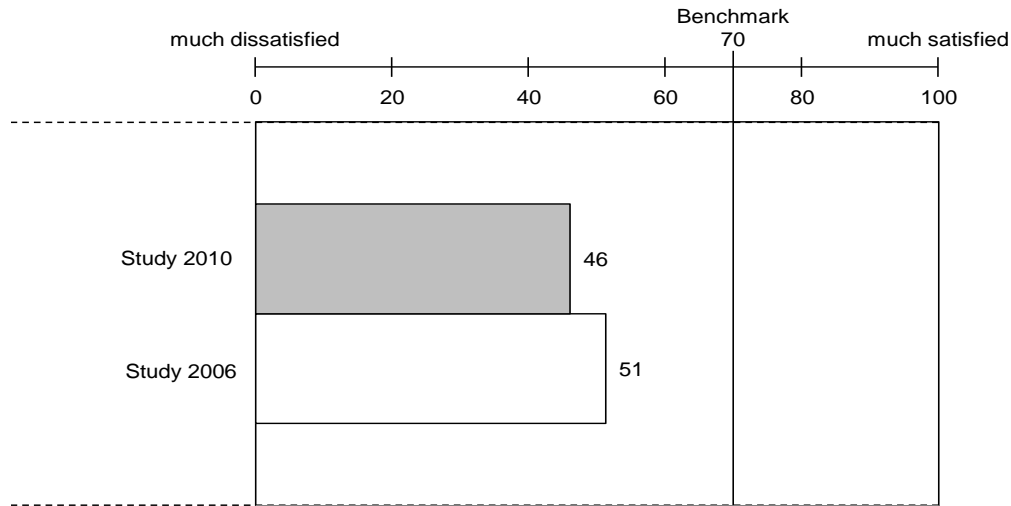


Table 10. Overall satisfaction with the quality of banking supervision

	2010	2006	p-value
	46	51	***
H ₀ : Mean2006 = Mean2010			
*** significant at a 0,1% level			
** significant at a 1% level			
* significant at a 5% level			

Corresponding to the Survey-2006 we additionally apply a CHAID algorithm provided by Kass (1980) to empirically evaluate statistically significant drivers of the banks' overall satisfaction with banking supervision.¹ Empirical evidence initially suggests that the strongest driver of overall satisfaction is best described by the predictor variable "bank manager's attitude towards the concept of qualitative banking supervision". This result is in line with previous findings (Section 3.2) suggesting that the number of sceptics among bank managers towards qualitative banking supervision according to *Basel II, Pillar 2* has distinctly increased over the last 5 years. Furthermore, the supervisory authorities' focus on individual bank risk and regulatory restrictions concerning management decisions and business operations constitute further significant

predictors of the interviewed banks' overall satisfaction with banking supervision in Germany.

4. Conclusion

This contribution presents and discusses main results of a new survey on the assessment of supervisory quality among German banks in 2010. In particular, it is analyzed if and how the supervised banks' perception of the quality of supervisory authorities and their instruments has changed due to the financial crisis starting in mid-2007. Accordingly, comparing results from the recent survey with evidence provided by a former study carried out by the authors in 2006 (Paul, Stein and Uhde, 2008) we initially find that interviewed banks have become more sceptical towards the aspect that banking supervision may provide "prompt corrective action" in time and may clearly focus on systematic risk. Furthermore, evidence reveals that German banks perceive more detailed qualitative regulations on internal risk management systems and the management of

¹ See Paul, Stein and Uhde (2008) and Kaltofen, Paul and Stein (2007) for a detailed discussion of the CHAID methodology.

liquidity risks as less helpful compared to findings from 2006. In this context, we also find that a notably higher number of bank managers consider the concept of qualitative banking supervision as a risky element due to higher legal uncertainty. Moreover, German banks still assign a higher quality and competence to *Bundesbank* supervisors rather than *BaFin* personnel and this margin has even broadened between 2006 and 2010. Finally and corresponding to findings from single assessment categories we provide evidence that the banks' overall satisfaction with banking supervision quality in Germany has decreased during the course of the recent financial crisis.

Against the background of our empirical results we suggest (1) that the effectiveness of a system of two coexisting supervisory authorities in Germany has become even more doubtful and (2) that the *BaFin*'s effort to set up a closer partnership between supervisory authorities and the banking sector by providing consulting services of the highest quality is not reflected by interviewed banks' assessments. As a consequence, we stress the necessity to reconsider the German government's decision to further foster supervisory responsibilities of the *BaFin*. Moreover, as German banks perceive a decrease in banking supervision quality since 2006 and preparations of implementing the new *Basel III* framework have already begun, short-term measures have to be taken in order to provide more transparency and efficiency with regard to the supervisory organizational structure and instruments.

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IS PRINCIPLE BASED LEGISLATION SMART CHOICE FOR CAPITAL MARKET'S REGULATION

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Abstract

Global financial crisis in 2008 posted numerous questions about the reasons and triggers. In past three years world's economic literature has been full of academic articles analysing each reason or trigger and scientific explanations of possible connections. Majority outcome was, that key factor was excessive use of derivatives and synthetic financial products, which were under regulated or not regulated at all. The outcome was that countries with developed financial markets introduced new regulations and controls in the field of derivatives and synthetic financial products. Term "systemic risk" was introduced in global financial market. But will this approach really prevent such global crisis? Submission is divided in three parts.

First part deals with the theory of principle based regulation. Principle based regulation was firstly introduced in UK and latter accepted by European Union in the field of capital markets. It was a way, together with the Lamfalussy process, to make EU regulation acceptable for all member states. Instead of detailed prescribed behaviour, legislation texts prescribe only desirable goals. Implementation is left to each state or, even worse, to each supervised subject. So the implementation should depend on the capital market's development, capital product's structure, tradition, investment companies' size etc. From a distant view, principle based legislation could be seen as a great legislation writing's technique. It could be seen as an effective solution to regulate a fast developing field without need to change the regulation. But is it true?

Second part of the submission addresses the legal questions and problems, connected to the principle based regulation starting with the validity of regulations. Broad definitions in Market in financial instruments Directive (MiFID), introduced for fast adaptation to new financial products and instruments, are now turning into dinosaurs. Contrary to US's fast action, European Union is still discussing whether spot forex trade is financial instrument or not. On the other hand, broad and unclear definitions, represents a friendly environment for new casino's financial products. Even recognised financial instruments (like derivatives and synthetic financial instruments) are recognised as gambling contracts by national courts within European Union. Problems with legal enforcement of financial contracts are mentioned also in common law's literature. There are numerous pages describing the economic and financial essence of each derivative or synthetic financial instrument. But the chapters, dealing with the legal aspects, are short and end with a similar advice: "due to small number of case law and the danger, that courts could interpret such contracts as a gambling contract, we strongly advise to settle all disputes outside the court." In case of numerous defaults unenforceability of contracts could be the poison pill for the trust in capital markets. Accepted solutions could also be a problem for administrative or criminal sanctions. Broad and unclear definitions could violate the basic principle "nullum crimen sine lege praevia." And least but not last, in modern financial world sins are made in interpretations of details and not of principles.

Third part of submission deals with the necessary assumptions for a workable principle based legislation. It starts with basic legal culture and generally accepted rule of law. It deals with the corporate culture, consumer's organizations, financial markets and capable supervisors. Only when all the actors perform their expected roles, the principle based legislation could work properly.

Keywords: Principle Based Legislation, Capital, Emerging Economies, Egyptian Revolution

JEL classification: K22, K23, K42, G28

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1. Introduction

We could compare financial crisis in world economic system with the snow at the begging of winter. It's natural phenomena, but every time surprise us and causes a lot of troubles. With time we get used to it and we adapt our lives to the new weather conditions. Only the weather experts make a debate whether the snow came to early or about its quality and quantity. For most ordinary people with financial crisis is the same. Everyone expect also the bad times but everybody is surprised when they come. And after a while most of us adapt to new economic situation. There is only one slice difference – we know the mechanism of snow formation (which is always the same); we always don't know the mechanisms of financial crisis (which are different). But is this really true?

Great depression's lesson was that under regulated financial market is a gold mine for speculators with precise mechanisms of market abuse and insider trading. The result in the States was new legislation on securities and stock exchange.¹ At that time the rampant practice of buying on margin made the effects of the stock market crash worse. In margin buying, an individual could purchase a share of a company's stock and then use the promise of that share's future earnings to buy more shares. Unfortunately, many people abused the system to invest huge sums of imaginary money that existed only on paper.

Global financial crisis in 2008 posted numerous questions about the reasons and triggers. In past three years world's economic literature has been full of academic articles analysing each reason or trigger and scientific explanation of possible connections. Majority outcome was, that key factor was excessive use of derivatives and synthetic financial products, which were under regulated or not regulated at all. The outcome was that countries with developed financial markets introduced new regulations and controls in the field of derivatives and synthetic financial products. Term "systemic risk" was introduced in global financial market. But will this approach really prevent such global crisis? So we come to the same position as it was in great depression – under regulated market with mass usage

¹ In 1933 Truth-in-Securities Act was introduced. This act requires anyone offering stocks, bonds or other securities for sale to make a "full and fair disclosure" of financial and other information relating to the issues involved. It also mandated that companies disclose the securities holdings of their officers and directors. This was after years of dishonest dealings by investors seeking to cut their losses short as the Depression worsened. In the same year also The Glass-Steagall Act was introduced. It's also known as the Banking Act of 1933 and prohibits commercial banks from engaging in the investment business. In 1934 Securities Exchange Act was introduced. This act sought to rid the stock market of an epidemic of unfair and dishonest practices. It also created the Securities and Exchange Commission to carry out its regulations.

margin's buying. The only difference is that the financial hole is now a lot bigger than in 1930's due to more greed and fastest trading systems. In financial world the rule of the "wild west" was generally accepted –not by legislation, but by intentionally exclusion some of financial world from legislation.² It was believed that development of financial world is too fast to be followed by state legislation. So the best way is to let the market forces and self-regulation do its work. And profit's maximization leads our financial world from Enron case³ to Madoff's Ponzi scheme. By the end of the day investor's confidence in financial instruments and markets was gone. And everybody starts talking about the crisis of trust. Result was that governments start seeking the measures to return trust in capital markets.⁴

In this submission I won't discuss about the economic or financial reasons for the crisis. It's the task for financial economists. It's mere theoretical question what is the real value of synthetic or derivative instrument.⁵ It's mere a theoretical question also whether the credit rating grade is A+ or A.⁶ These are instruments of fictional financial world which have unlawful effect on everyday world. The intention of this submission is to discuss the suitability of legal solutions for present financial markets.

2. Principle based regulation

Market in financial instruments Directive (hereinafter MiFID) and also Slovenian Law on market in financial instruments introduces new legislative approach. It's so called principle based legislation. It's not a totally new approach – such approach was partially introduced at the beginning of 1990's in the field of European standardisation with so called "new approach". Basic idea of such solution is that legislation doesn't contain exact actions but only the final goals that should be achieved.⁷ There are also some imperative articles but the basic idea is to achieve goals – means and ways are in the hands of

² E.g. in the States with the modernisation of Commodities Act.

³ This was the classic case of auditor's conflict of interests. And the last crisis showed the credit-rating agency's conflict of interests. So the main question in last sovereign's debt problem is why creditors still believe credit-ratings agencies even though they showed that their analyses are not trustworthiness. It's also the big question why the national legislations still tolerate such agencies and their influence on investors and capital markets.

⁴ Latest debt's crisis in Europe has shown that no such measure was found yet.

⁵ Although such financial instruments surpass the basic legal rule "Nemo plus iuris in alium transferre potest quam ipse habet."

⁶ The case of bankrupted banks in the States (e.g. Goldman Sachs) showed that credit ratings are more or less the same as the predictions of the gypsies with the glass ball.

⁷ In legal text this is shown in syntax "should have appropriate..."

market participants. Imperative norms are necessary for the sanctions. Principle based articles aren't appropriate for the sanction system – the basic legal principle “*nullum crimen sine lege praevia*” could not be achieved with such type of norms.⁸ Principle based legislation have the following features (Balck, Hopper in Band 2007, 192):

- it's written in broad manner so it's appropriate for flexible use in the fast developing industries;
- it contains qualitative terms and not quantitative terms (fair, appropriate, reasonable,...);
- it contains purposes for each article;
- it's applicable in whole spectre of activity;
- it contains behavioural standards (experience, integrity, care,...);
- standard's violation should base on guilt;
- sanctions are civil but under the administrative or criminal law.

Principle based legislation should have the following positive effects (Balck, Hopper in Band 2007, 195):

- higher management is active in the internal regulative procedures;
- core is the intention of the regulation and not the exactness;
- flexibility allows development of new business models, products, strategies and internal procedures;
- allow higher degree of regulator's response to the market developments;
- allow concentration on the core questions;
- minimise complexity and maximise harmonization;
- allow cooperation between regulator and company and introduce targeted supervision (in case of good intention and bad market information).

Financial crisis in 2007 started academic discussion about the appropriateness of principle based legislation for financial markets. Such approach should have the side effect that system is less predictable and it allows the retrospective validity of norms. Users could and are also misusing such system to set their regulations on the prescribed minimum (Black 2008, 426). It's the problem connected with self-regulative organizations. Development of self-regulation was connected with the idea of regulatory flexibility what should result with the higher quality of goods and services.⁹ Final

⁸ This is the reason that in UK, which is the principle based legislation's country of origin, monetary sanctions are treated as civil sanctions and not sanctions within administrative or criminal system. Otherwise the prosecution of such behavior could be illegal.

⁹ Self-regulation is not a big invention of the 20th century. It was present in the middle age in European countries within professional organizations (e.g. guilds in Germany, Austria and Slovenia). At the begging self-regulation was intended to protect certain profession from the outside (incoming of new professionals) and inside (protecting of competition and trade secrets) dangers. Self-regulation had had in those period two

result was that minimal standards were accepted as optimal and that the goals were achieved with minimal financial and organizational inputs and changes.¹⁰

Black (Black 2008, 427-428) describes seven paradoxes of principle based legislation:

- explanation paradox – norms are flexible but they could become very exact with the use of interpretative rules;
- communication paradox – it arises out of the different regulation's interpretation from different regulators;
- harmonization's paradox – regulations allow creativity, but at the same time, because of uncertainty, the users take the conservative approach;
- paradox of supervising and implementation – with the retrospective explanations the supervisors are in risk that their procedures would be annulled;
- paradox of internal management – flexibility of internal supervising system could result in its inoperability (because of too much regulations);
- ethical paradox – retirement that users should decide for the degree of harmonization could result in bad decisions;
- paradox of trust – trust in system should exist before the regulation enter into force.

Principle based legislation could provoke very conservative actions from the part of users, because they want to avoid possible actions against them and possible bankruptcy procedures (Schwarcz 2009, 177). This is seen also in Slovenian market with the lack of new financial products and services. Also investment companies choose only investments that give the ensured return.

Burgemeestre and others (Burgemeestre, Hulstijn in Tan 2009, 39) define the following differences between standard norms and principle based norms:

main advantages. First advantage was that professional organizations could change the insufficient rules either by changing the articles of professional codes or by changing the interpretation of certain article. Such solutions allowed the use of up to date legislation which covered the main needs of craftsmen. The second advantage was the use of such professional legislation by the professional arbiters. Because of clear professional language in such codes arbiters didn't need deep legal interpretation of written norms and the procedure was short with no lawyers involved. In the 18th century the state took control over the professional orders and also included some of the self-regulation norms in the state laws. So the state gained the right to control professional self-regulation and in certain cases intervined with the state legislation when the self-regulation's solutions were in contrary with state interest. Such solution we can still find nowadays in certain European legislation (e.g. Germany, Austria), where the competent minister has the right to withhold the self-regulation which is contrary to the public interest.

¹⁰ So called dimmed mirror effect.

Table 1. Differences between standard norms and principle based norms

Dimension	Principle based norms	Standard norms
Time	Ex post	Ex ante
Conceptual	General/universal/abstract	Specific/individual/concrete
Functional	Great discretion	Less discretion
Response act	Declarative (what)	Procedural (how)
Expected knowledge	High	Low
Exceptionality	Generally allowed	Only if allowed
Dispute existence	Depends on weight	No disputes

Source: Burgemeestre and others (Burgemeestre, Hulstijn in Tan 2009, 39)

Table 2. Typology of regulatory institutions

	Regulatory institutional model			
	Prescriptive	Outcome-oriented†	Process-oriented‡	
			Management-based	Meta-regulation
Regulatory foci	Prescribed actions	Outcomes	System design	Systemic learning
Compliance determination	Adherence to prescribed actions	Achievement of acceptable results	Acceptable planning (and implementation) of systems and controls	Systems and controls are shown to yield learning and improved (proxy) outcomes
Nature of rules	Detailed specification of required actions	Output specifications	Design process specifications	Goal-oriented principles
Basis for achieving regulatory goals	Adherence to prescriptions assumed to meet goals	Outputs are closely associated with goals	Systems are designed to meet goals	The interim (proxy) outcome of regulatees' systems is evaluated and controls are readjusted to improve performance
Relevant circumstances	Organizations are homogeneous and regulators have a good understanding of the association between systems and achievement of regulatory goals	Organizations are heterogeneous or markets are unsteady or both, yet regulators and regulatees nonetheless have reasonable understanding of what good outcomes look like	Organizations are heterogeneous or markets are unsteady or both, yet regulators and regulatees nonetheless have reasonable understanding of what good control systems look like	Organizations are heterogeneous or markets are unsteady or both, and both regulators and regulatees have limited understanding of what good outcomes or good control systems or both look like

†Including performance-based regulation, standards-based regulation, and principles-based regulation.

‡Including management-based regulation, enforced self-regulation, New Governance principles-based regulation, and meta-regulation.

Source: Gilad 2010, 487

Principle based regulation represents so called meta-regulation or belong to a family of “process-oriented regulation” that mandates and monitors organizations’ self-evaluation, design, and management of their first-tier operations (e.g. food processing) and their second-tier governance and controls (e.g. internal quality assurance over food processing). “Meta-regulation,” is a dynamic process-oriented regulatory institution. Meta-regulators expect organizations to not only identify risks and devise internal control systems, but also to continuously evaluate the efficacy of their internal systems and incrementally improve them in light of this evaluation (i.e. double-loop learning). Regulatory monitoring focuses on the quality of regulatees’ self-assessment of the association between their systems and perceived outcomes and on the actions that they take in light of these assessments. Meta-regulation does not end with regulators holding organizations accountable for incremental improvement of their

systems and proxy outcomes. Regulators should consciously engage in learning about the industries and the problems that they are trying to manage, assess the impact of their strategies, and continuously improve their regulatory strategies accordingly (i.e. triple-loop learning) (Gilad 2010, 488).

From legislative point of view, financial crisis in 2008 was a product of different factors:

- strong lobby organizations who succeed to introduce “wild west” financial legislation either by not regulating certain instruments or by omitting certain strict rules;¹
- weak governments;²

1 E.g. prohibition for banks to deal in investment services.

2 Either weak government was non-effective because it has to deal with the problem of coalition coordination and so has no time and energy to solve the real life problems. Or the government intentionally leaves the certain field underegulated to maintain peace within the governing coalition. In both cases the certain economic activity is forced to make self-regulation to protect its interests.

- greed of investors;³
- conflict of interest within regulators and rating agencies.⁴
- lack of legal enforceability for derivative and hybrid financial instruments.⁵

There are numerous reasons why principle based legislation became so popular within self-regulatory organizations including exchanges and broker dealer associations. First advantage of self-regulation is the low cost for the state. Low cost effect works in two directions. First the state has no expenses to monitor the certain economic activity for the legislative purposes and for drafting such legislation. Second state has no expenses for implementation and inspection of needed legislation. Both expenses are on the shoulder of self-regulatory organization or its members. A cost of inspection is lower because the set regulations are normally accepted by majority of organization's members (what implicit means that they already comply with such regulations). On the other hand inspection is paid either by self-regulative organization (at the end paid by the members) or by the offender. The negative part is that such costs are sooner or later transferred in the cost paid by the consumer. Due to the private nature of self-regulative organizations public has no insight to the costs of adaptation and implementation of self-regulations and the effect of these costs on the final price of certain good or service.

Self-regulation's second benefit is the flexibility of quality and quantity of norms. Self-regulatory organization adopts its norms according to the need of its members. We could expect that certain activity will be sufficiently and clearly regulated. The negative part is than members could misuse their rights and over regulate their activity in with such regulations establishing barriers to new entries. On the other hand with the use of professional language and terms self-regulation becomes for the consumer unclear and non-understandable. Another problem represents publication of self-regulation, if is not published in official journal or published only in journal accessible only to the members of self-regulative organization.

Another benefit form self-regulation is establishing the minimal standards of goods and services provided by members of self-regulation

organization. Only the providers have all the information about the optimal quality which can be achieved by present knowledge and technology. So by setting minimal quality in self-regulation, providers can show consumers what they can expect on market and what can be taken as a reference to judge a quality of provided goods or services. So self-regulative organization makes the internal selection between its members and causes the close down of bad quality providers. On the other hand this solution has negative side that minimum quality soon can become also a maximum quality landmark for all the members. This can happen in case that self-regulation organization has also authority to set the recommended price for such goods or services. In case that consumer is ready to buy the set minimum quality for the set maximal price and that market has no other mechanisms to reward providers with better quality, then such providers will soon lower their quality to the set quality. So on long run market can lose the diversity of products and services. Right of self-regulation organization to set minimal quality can lead also to unjustified elimination of small providers. This can happen in the case that big providers have enough voting rights to set in self-regulation such requirements that are for small providers too expensive or technically unattainable. Problem is even bigger, if self-regulation organization is the highest professional authority and that competent court (normally constitutional or supreme court) decides that has no competence to judge about the set standards.

One of the benefits of self-regulation is also the possibility to keep a distance between professional questions and political questions. By delegating certain legislative powers to self-regulative organizations, politics clearly express their intention not to interfere into professional questions. So the state prevents cases in which the providers could be divided between the opposite requirements form state legislation and professional ethics or standards. Danger of such solution is that the set standards in fact don't cover the real needs and expectations of consumers or public interests. If self-regulation organizations don't have strict rules to prevent lobbying, than could happen that the lobby interest can prevail over the professional interest or, even worse, over the benefit of citizens. On the other hand such delegation of powers can lead to the problem of franchise state. Such processes can lead to the solution that lobbies can form, through self-regulatory organization's regulation, the citizen's expectations and landmarks. The final result can be even the unifying of all three powers (legislative, executive and legislative) in only one organ without the possibility that citizens could control the execution of mentioned powers.

³ Seen in growth of high yield financial instruments.

⁴ First real discussion about the conflict of interest problem went on in Enron and Parmalat case. In both cases there was a serious discussion about the possible conflict of interests within the private supervisors of private business (auditors, public notary, supervisory boards...). The same debate went out also in some cases of self-regulative organizations with certain public authority (e.g. professional chambers, professional orders).

⁵ In fact, derivative and hybrid financial instruments are mostly treated by courts as gambling contracts and they are unenforceable. There are only few cases in which debtor were sentenced to pay the debt from such instruments (n.b. these were the cases of clear fraud – so the court tried hard to find out way for judgement).

Cases such were energy breakdown in California,⁶ Enron⁷ or Parmalat⁸ bring out the question of the self-regulation's efficacy and the justification of deregulation. On the other hand such cases bring out also a question of market law's efficacy. By the end of the day we are dealing with reregulation of deregulated activity. I think that all the legislative processes in last 100 years could be shown as a constant circulation. The state is constantly moving from the state regulation towards either delegated deregulation or self-regulation and then to reregulation.

3. Prerequisites for principle based legislation

By my opinion financial crisis in 2008 posted one crucial question: "Is modern society and institutions of democratic state really ready for principle based legislation?" Which are prerequisites for functioning principle based legislation?

Firstly, regulatory organization should make and publish the main goals of financial policy in forthcoming year. The adopted regulatory policy should give the clear signals which goals are more important and which are less important. So the adopted policy base on:

- findings of supervisory procedures (where are the weaknesses of system, where the expected dynamic is slowing);
- professional analyses about each factor's importance for normal functioning of capital markets (which self-regulatory measures should be implemented);
- regulator's priority on certain goals (how to achieve coherent development of financial market).

If there are no clear goals for self-regulation in each year with such omissions regulator actively promotes unstable financial markets. We must not forget that financial institutions are economic subjects which are obliged primary to deal for self-interests and interests of shareholders. If the regulator lets defining primary goals to the financial institutions causes anarchy on capital markets. Even more partially sanctioning is against logic of principle based legislation. Function of financial institutions is not the promotion of financial market stability. Their function is to guarantee their financial stability with minimal respects for investor's protection. So the publication of regulator's policy is necessary that:

- investors are aware with the degree of their protection in each financial market and each group of their investments;

- investment companies are aware with working priorities and so are able to plan enough financial means to achieve given goals;
- shareholders are aware with possible new obligations towards their companies;
- exchanges and clearing houses are aware with possible changes in their information systems.

Secondly all essential systemic and organizational risks should be addressed and properly dealt with. It's a procedure of risk's quantification and qualification and adopting all necessary measures to minimise such risks. The tasks of regulator are:

- definition of main systemic risks for each year based on analyses and known methodology;⁹
- quantification and qualification of each risk on the risk scale;
- definition of main measures to prevent risks or the reasons not to act;
- publication of all adopted measures and policy.

Thirdly, there should be professional and well informed regulator. Such regulator publishes accepted market practices. They are "condition sine qua non" for clear functioning of capital markets. Accepted market practices allow development of new instruments and new techniques on stock exchange. The line between allowed actions and market abuse actions is sometimes not so clear.

Fourthly, regulator should give the concordance to the codes of conduct or recommendations of professional associations. In such way regulator gives more importance to the professional associations. With recognition such associations became more active in searching new solutions and state get more professional support when changing regulations.

Least but not last, regulator should publish all supervisor's measures and given licences. In such way all the market participants could see the regulator's value system. So each market participant could test its solutions against regulator's practice.

What should be the country's approach towards workable principle based regulation? Legislator should firstly decide in which questions enough to set only basic principles without further detailed regulation. In the field of financial and banking law in Republic of Slovenia there is mere copy-pasting of EU directives.¹⁰ By my opinion state's legislator should not only adopt principles¹¹ and set basic goals but should also set more detailed regulations in following cases:

⁹ No methodology and analyses causes noises on capital markets and enable higher degree of speculations on the account of small investors.

¹⁰ Authors of such legislation give simple explanation that this is the only way the EU legislation could be implemented in national legal system. If we look to Slovenian Market in Financial Instruments Act, we could see that more or less is a mere copy paste form EU directives. So all the questions are simply forwarded to financial companies – no matter whether this is possible or is legislative question.

¹¹ Basic principles are natural part of any of national law.

⁶ More about this problem see Taylor and VanDoren (Taylor in VanDoren 2001) and Weare (Weare 2003)

⁷ More about this problem see Hilary and Lennox (Hilary in Lennox 2005), Graham and Woods (Graham in Woods 2006) and Rhode and Paton (Rhode in Paton 2009)

⁸ More about this problem see Pagano and Immordino (Marco in Immordino 2005) and Campbell (Campbell 2006)

- when there is a case that financial organizations doesn't have enough knowledge and human resources to adequately regulate set principles and goals;
- when there is a case that from national economy is justified to implement only one or definite ways to achieve the set principles and goals;
- when the history shows that the freedom of regulation could lead to greater illegal practices, market manipulations and under-regulation;
- when the violation of articles lead to administrative or criminal procedure or could end in revoking the given authorizations;
- when the delegated regulation will lead to the expansion of rules what will lead to the situation in which protection of small investors won't be clear.

Next step is to establish the professional and ethical regulator. Setting up the regulator with clear competences and responsibilities is necessary for workable supervision and deregulating system. Regulator should have enough professional knowledge and authority to set and implement policy on national financial market.¹² Setting regulator with no competencies or no responsibilities is waste of taxpayer's money. On the other hand such regulator could be in desire to abuse its powers for the promotion of its leaders without the real intention to make the financial market properly functioning. In contrary – such system could lead towards destruction of national capital market. In such cases is better to have only one regulator for all three fields (banks, investment companies and insurance companies) with competent organs and people. There should be the clear obligation for regulator to publish all necessary information so that market participants could clearly see their rights and obligations.

After solving the question of regulator, state should build a workable system in which there is a clear dialogue between all market participants (consumers, investment companies, stock exchange, clearing house, professional associations, academia, etc.). Principle based legislation is in fact the framework which should be filled by essence. Parts of principle based regulation are also compromises or agreements¹³ between all market participants. If regulator sets system in which only one part of financial market has right to participate within policy making process, such system leads towards mistrust

¹² Slovenian reality is far from this standard – regarding the professionalism of agency's council as regarding its moral authority. Clear evidence for lack of both qualities is seen in Slovenian stock exchange and in investment management companies. Parliament's and government's relation towards Slovenian capital market is shown in academic and professional education of nominated persons in agency's council (in comparison with regulators in seriously developed countries or Slovenian Central Bank). By my opinion the simple closure of Securities market Agency in Slovenia wouldn't be noticed by anybody (except the members and employees of this agency).

¹³ Written or oral.

of small investors and by the end of the day to dead capital market.¹⁴ Actors' active participation in policy making procedure should be part (and it is part) of any democratic society.

At the end state should build the effective dispute settlement system. Such system should be transparent and professional. Such system should have strong prevention against conflict of interests and revolving door problem.

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¹⁴ What could be also the case in Republic of Slovenia.

MIRACULOUS FINANCIAL ENGINEERING OR TOXIC FINANCE? THE GENESIS OF THE U.S. SUBPRIME MORTGAGE LOANS CRISIS AND ITS CONSEQUENCES ON THE GLOBAL FINANCIAL MARKETS AND REAL ECONOMY

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Abstract

In the fall of 2008, the U.S. subprime mortgage loans defaults have turned into Wall Street's biggest crisis since the Great Depression. As hundreds of billions in mortgage-related investments went bad, banks became suspicious of one another's potential undisclosed credit losses and preferred to reduce their exposure in the interbank markets, thus causing interbank interest rates and credit default swaps increases, a liquidity shortage problem and a worsened credit crunch condition to consumers and businesses. Massive cash injections into money markets and interest rates reductions have been assured by central banks in an attempt to shore up banks and to restore confidence within the financial system. Even Governments have promoted bail-out deal agreements, protections from bankruptcies, recapitalizations and bank nationalizations in order to rescue banks from disastrous bankruptcies.

The credit crisis originated in the previous years when the Federal Reserve sharply lowered interest rates (Fed Funds at 1%) to limit the economic damage of the stock market decline due to the 2000 dot.com companies' crisis. Lower interest rates made mortgage payments cheaper, and the demand for homes began to rise, sending prices up. In addition, millions of homeowners took advantage of the rate drop to refinance their existing mortgages. As the industry ramped up, the quality of the mortgages went down due to poor credit origination and credit risk assessment. Delinquency and default rates began to rise in 2006 as interest rates rose (Fed Funds at 5,25%) and poor households across the US struggled to pay off their mortgages. Many of them went bankrupt and lost their homes but the pace of lending did not slow.

Banks have transformed much of the high-risk mortgage debt (securitizations) into mortgage-backed securities (MBS) and collateralised debt obligations (CDO), and have sold these assets on the financial markets to investment firms and insurance companies around the world, transferring to these investors the rights to the mortgage payments and the related credit risk. With the collapse of the first banks and hedge funds in 2007 the rising number of foreclosures helped speed the fall of housing prices, and the number of prime mortgages in default began to increase. As many CDO products were held on a "mark to market" basis, the paralysis in the credit markets and the collapse of liquidity in these products led to the dramatic write-downs in 2007. When stock markets in the United States, Europe and Asia continued to plunge, leading central banks took the drastic step of a coordinated cut in interest rates and Governments coordinated actions that included taking equity stakes in major banks.

This paper written by the Author (on October 7th, 2008) at the rise of these dramatic events, aims to demonstrate, through solid and fact-based assumptions, that this dramatic global financial crisis could have been addressed and managed earlier and better by many of the stakeholders involved in the subprime mortgage lending process such as, banks' and investment funds management, rating agencies, banking and financial markets supervisory authorities. It also unfortunately demonstrates the corporate social responsibility failure and the moral hazard of many key players involved in this crisis, since a lot of them probably knew quite well what was happening but have preferred not to do anything or to do little and late in order to change the dramatic course of the events.

Key Words: U.S. Subprime Mortgage Loans Crisis, Toxic Finance, Financial Engineering

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“There's none so blind as those who will not see”
(The Prophet Jeremiah)

Most economists and financial analysts identify amongst the main causes of the current global financial crisis, the U.S. Federal Reserve's low interest rates policy (Fed funds) of the latest years with the resulting credit euphoria of both lenders and borrowers, the more “relaxed” credit initiation policies and procedures, the overwhelmingly positive expectations on the real estate market growth and prices increases, and the massive use of badly controlled innovative financial engineering tools.

Although these solid and fact-based arguments certainly represent a relevant and accurate portion of the “big picture” and help identify and explain some of key determinants of the global financial turmoil, the degree of complexity reached by the phenomenon and its global spread seem to suggest a more interrelated and articulated set of responsibilities than the ones represented by the more aggressive expansionary US monetary policy, the less rigorous credit policies and some adverse economic and market conditions.

There is no doubt that in today's globalized world and highly integrated financial markets the wave of profits and losses (from capital, monetary, equity, debt, derivatives, commodities, liquidity, foreign exchange markets) moves very quickly across the continents. The speed of communication devices, online and real-time decision support systems, advanced ICT architectures and computer-based solutions have certainly simplified but also amplified the benefits and threats associated to global financial trading, since the higher interrelations and integration leads also to a higher level of complexity.

A more thorough and in-depth analysis of how the U.S. subprime mortgage loans crisis has originated and evolved, seems to reinforce the idea that this dramatic financial event is predominantly related to the underestimated complexity generated by the exponential growth of innovative financial engineering products (derivatives), by the SPVs (*Special Purpose Vehicles*), by the too ambitious short-term oriented bonus/profitability/capital gains objectives of banks' management and their shareholders, by speculators, and by a major failure of banks, rating agencies, and banking and financial markets' supervisory authorities to proactively and timely assess and mitigate the exploding crisis.

An evidence of this assumption is proved by the difficulty of many experienced credit and financial analysts to believe that all the risk management specialists of banks and financial institutions involved in the subprime mortgage loans crisis, simultaneously lost control of their portfolio risk and had no clue about what was really happening in their organisations even at the very senior management levels.

Even more incredible to believe is that the subprime mortgages loans portfolios have deteriorated so suddenly and unexpectedly that risk managers, internal auditing teams, external independent auditors, rating agencies, banks management, industry and investment analysts and banking and financial markets supervisory authorities (i.e., FED and SEC and others) have not perceived the dangerous rising burden of risks or at least have seriously underestimated the potential blast. This is quite difficult to believe, indeed, given that in the US mortgage lending market two semi-governmental agencies alone, like mortgage giants Fannie Mae and Freddie Mac, account for over sixty percent of the total national mortgage lending industry.

The banks' subprime mortgage loans securitizations have received in many cases *investment grade* ratings (i.e., Fannie & Freddie – AAA rating) from the leading rating agencies (i.e., Standard & Poor's, Moody's and Fitch) for the placement of their securitized mortgages loans as structured products and derivatives (i.e., *CDOs* - Collateralized Debt Obligations, *ABS* – Asset-Backed Securities, *MBS* Mortgage-Backed Securities). This is a very convenient way of funding the business especially with a AAA ratings (low default risk = low cost of debt capital (*WACC*) from the well-known *CAPM* methodology). This generous low-risk assessment of the rating agencies has recently led many investors and economic journalists to declare serious concern about a possible conflicts of interest in the relationship between the two parties (banks and the rating agencies). Furthermore, the securitization process was expected to make the markets safer through diversification and distribution of risks to a wide spread number of investors and investment portfolios globally. *CDOs* are offered in tranches of increasing seniority (equity/first loss, mezzanine, senior, super-senior). At the more senior level of debt, investors are able to obtain better yields than those available on more traditional securities. *CDO* issuers usually hedge their position by selling credit default swaps (*CDS*) on the reference portfolio. The counterparties in the hedging transaction are the ones who actually sell credit risk to the *CDO* buyers.

Other doubts that seem to confirm the unlikely hypothesis that senior bankers, rating agencies analysts and fund managers were unaware of the subprime crisis escalation are represented by the traditional preventive and pro-active fact-based risk management approaches and philosophy of most North-American banking and financial services institutions. Credit and financial risk management specialists of the retail and investments banks, rating agencies and mutual funds are highly qualified professionals rigorously trained to make fact-based decisions on the debt (lending)/securities/derivatives portfolios, who rely heavily on highly advanced and state-of-the-art metrics, statistical models and

computer-based technologies to assess credit, operational, market and financial risks.

In addition to these powerful tools, these professionals also use a set of standard internal policies and procedures and risk review processes which allow them to have a high level of confidence in the governance of their risk management

American banks have a long tradition of expertise in the mortgage lending and unsecured lending industry and in proactively managing their portfolios with state-of-the art credit risk management techniques which generally include timely and systematic use of early warning indicators (KPIs) sourced from credit scoring systems (*application and behavioural scoring* from FICO, NextGen, VantageScore, and the CE Score), *bureau scores* (from credit bureaus like Equifax, Experian, and TransUnion), *portfolio aging and vintage analyses*, *delinquency/roll rates/flow rates analyses*, *internal ratings-based approaches*, *external rating agencies' models*, *classified accounts* for corporate exposures, *Basel II models*, *CreditMetrics*, *Credit Portfolio View*, *CreditRisk+*, *Merton OPM/KMV Moody's*, *Reduced Form KPMG/Kamkura*, *VaR*, *Algorithmics* models, and so on.

It is difficult to believe that all the retail and investment banks, insurance companies, and mutual funds involved in the subprime crisis with the availability of these state-of-the art metrics, risk assessments models and senior managers expertise, were simultaneously not able to spot the problem at an early stage of the threat. They were, instead, extremely talented at convincing leading rating agencies of the good quality (low probability of default) of their mortgage portfolios (including the risky subprime segments) in order to transform these "risky assets" (mortgages loans receivables) into apparently low risk securitizations and very convenient funding for the banks.

These securitized subprime mortgage loans were then used as underlying assets or collateral of complex and high volatility structured products and derivatives (i.e., CDO, ABS, MBS) and placed in the mutual funds, pension funds and hedge funds' portfolios and sold all over the world to institutional investors as low risk (AAA rating) investments with very attractive return rates (profitability). With this strategy the financial engineering "miracle" was actually invented. Contrarily to the established investment techniques principles (low risk/low returns and high risk/high return) the financial engineering miracle has created the (low risk/high return) paradigm, at least in the short-term. Most stakeholders of this innovative banking approach must have been very happy about the miracle at least in the beginning. Rating agencies' risk models have certainly underestimated the impact that widespread defaults in a declining home price environment could have on the value of complex financial engineering products like the CDOs.

As good risk managers know quite well, lending portfolios' deteriorations do not occur overnight (even in the subprime segments) if the credit origination and credit risk management process are managed properly. At least many risk managers should not receive significant unexpected surprises simultaneously, having in their banks different credit policies, corporate strategies, and constantly reviewed and audited processes.

Many leading secured and unsecured lending organizations in the US/UK use profitability-based models (NPV models) to systematically monitor portfolio performances and to forecast/plan portfolios projected trends/results. It seems a bit awkward and difficult to believe that some of the best risk managers and savvy financial analysts of the world have suddenly "missed the boat" causing the dramatic bankruptcies (i.e., Douglass National Bank, Hume Bank, First Integrity Bank, IndyMac, Silver State Bank, Lehman Brothers, Washington Mutual and others) or severe losses of many prestigious banks and investment firms, mutual/private/hedge equity funds and insurance companies which had to be saved by the Governments recapitalizations/debt-equity swaps, or by the acquisitions/takeovers of competitors or investors (i.e. Bear Stearns, Countrywide, Merrill Lynch, Hbos, Aig, Northern Rock, Fannie Mae and Freddie Mac, Fortis, Bradford & Bingley, Morgan Stanley and others).

The reasonable explanation for a crisis of this magnitude and the hypothesis that this paper is aiming to state, is that a combination of a number of complex and highly interrelated factors have strongly contributed to this global financial turmoil. The factors are related to economic elements, to the corporate governance of banks and financial institutions, to the U.S. Government monetary policy, to the lack of rigorous supervisory controls in the banking industry and financial markets, to the high leverage credit culture of people in the U.S.A. and the U.K., to the banking management culture and philosophy, to the role played by the rating agencies.

To be more specific, the combined factors which have probably strongly contributed to the subprime issue are related to:

1) the **low interest rates** introduced in the last years in the U.S. market (expansionary monetary policy) to stimulate aggressive growth of the credit industry (mortgage lending) and to sustain a steady growth of the real estate industry;

2) the **high level of leverage** of both the U.S. citizens (consumer credit/mortgage lending) and the U.S. banks and financial institutions (through the use of a remarkable increase of the innovative, complex and highly volatile financial engineering products such as securitizations and derivatives placed on external vehicles - SPVs);

3) the **"credit euphoria" of both mortgage lenders and borrowers in the US market**, generated by the low interest rates and the more relaxed credit

origination terms applied by banks, has facilitated the level of credit risk increase in particular in the subprime customer segment. It has also allowed at least in the short term the US GNP growth and an improved position in the Balance of Payments;

4) the **profitability incentives/objectives** of the management of banks, investment firms, and mutual funds that combined with low interest rates and rapid mortgage portfolio growth have probably stirred even more speculative behaviours of bankers, shareholders and investors **to pursue more aggressively short-term financial benefits.**

This last assumption is demonstrated by the unusual salary and bonus increases in the last few years of CEOs of U.S. banks, investment firms, and other financial institutions. It is possible that the "credit boom euphoria" might have shifted the attention of many CEOs and senior managers of these organizations from their core business (professional lending and investment management) and organizational/industry culture (lending and credit management, portfolio risk/return-based decision making, and systematic risk reviews and audits) to a more aggressive short-term orientation. They might have closed one eye or maybe even two sometimes, to pursue immediate profitability benefits rather than focusing on the long-term sustainability, profitability, growth and brand awareness and reputation of their financial institutions.

Although this hypothesis sounds, as it is, quite worrying and alarming about the ethical and professional integrity of some of the bankers and financial gurus involved in the subprime crisis, the gloomy assumption does not explain, however, why the rating agencies have apparently not immediately reported the mortgage portfolios' deteriorations downgrading these assets (mortgages receivables/securitizations/or the financial institutions) or raised issues/warnings about the risky SPVs. Even the banking and financial markets supervisory authorities in U.S. (*FED, SEC*) and other countries (*ECB, BOE, and others*) apparently have investigated the problem when it was already quite too late.

The role of the Central Banks is to contribute to financial stability. Financial stability is a situation where financial markets, payments and settlements systems and financial institutions function smoothly and can withstand shocks. This involves monitoring the financial system closely. Now in this case things seem to have gone in a totally different direction.

It results quite difficult to believe that the U.S. banking and financial markets supervisory authorities were totally unaware of the subprime mortgage loans crisis, considering that the two mortgage lending giants, Fannie Mae and Freddie Mac, which manage a portfolio of above sixty percent of the overall U.S. mortgage lending market, are in fact government-sponsored enterprises" (GSEs). This means that they are privately owned, but receive support from the

Federal Government, and assume some public responsibilities. When Fannie Mae and Freddie Mac on September 6, 2008 requested a 200 billion dollars rescue plan, they were still rated AAA. The same occurred with Lehman Brothers, since a few hours before its bankruptcy announcement on September 14, 2008 was still rated as an investment grade (A rating) organization.

Perhaps there has not been sufficient attention to the risk management aspects of mortgages loans and derivatives, or perhaps there has been limited auditing and supervisory controls, but one thing which is sure is that, at least in the short-term, the rapid portfolio growth has certainly strongly contributed to the salary and bonus increases of CEOs and top managers, to the ROI of the banks and hedge and private equity funds, to the dividends and capital gains of the shareholders, and to the growth of the US. Economy.

These are the risks of **short-termism!**

Now, however, has come the time to mend the broken pieces and to start paying the bill of all this big mess. Looking at the accrued loss figures and the new potential ones (other institutions that may go bankrupt and the threat of global recession) the "bill" might become a bit too expensive. Since we have identified who have been the winners of the financial engineering miracle, at least in the short-term, we can easily identify as well who the losers of this "gambling-with-the-risk game" will be.

The extent of the fallout of the global financial crisis in terms of social costs are still highly unknown.

For sure these poor victims of this risky business will be taxpayers who will have to refund the governments' rescue plans for the banks involved in the crisis, but also the people who have variable-rate mortgage loans and other financial products with similar flexible rates at least in the short-term. The reason for this penalization is related to the liquidity problem of banks that for many months did not trust one another anymore and have preferred not to lend their counterparts on the interbank markets (short-term monetary markets), thus causing an increase in the interbank offered rates and subsequent increase in the interest rates of the variable-rate mortgage loans and other adjustable-rates unsecured lending products.

Furthermore, there are those who have lost their homes and jobs, and the companies that might go bankrupt because of a potential recession or stagflation that further reduce consumer spending. Other losers will be the banks themselves, private equity and hedge funds or insurance companies and individual investors who still hold toxic subprime products in their portfolios or derivatives with underlying assets or collateral represented by risky subprime mortgage loans (unless they will be adequately recapitalized by Governments/taxpayers). Companies might also be affected by this crisis, without the necessary financial support from banks,

especially the SMEs, due to their weaker negotiating power, they will experience more selective and expensive pricing for their borrowings due to the credit crunch.

And now after the first “**financial tsunami**” of the subprime mortgage crisis what else should we expect? A second potential wave of undeclared losses from other banks and financial institutions which might challenge the governments’ rescue plans or a new potential crisis affecting other financial products such as, credit cards, revolving cards, personal loans, leasing products, bank acceptances, overdrafts, commercial papers and so on.

It is difficult to know what the consequences of this crisis will be. One thing which is surely known is that in the U.S. and in the U.K. markets the average household debt as percentage of income (installment-to-borrowers’ income ratio) is approximately 130% versus a ratio of 40%-50% of a country like Italy.

The dramatic effect of the very high level of leverage of banks’ customers (mortgage loans borrowers) in addition to the high level of leverage of mutual funds, private equity hedge funds and SPVs (Special Purpose Vehicles) with external (SPVs) portfolios concentrated on highly volatile financial engineering products (i.e., derivatives, securitizations) has increased significantly in recent years the risk factors in the U.S. lending industry. In particular the placement of these credit receivables in SVP, external to the banks, have moved away the risky subprime portfolios from the banks accounting books, generated funding at very convenient terms (with AAA ratings) and have allowed subsequent use of these assets (securitized subprime mortgages) as collateral for derivatives products (CDO). Furthermore, this securitization strategy has allowed the SPVs to benefit of more convenient capital adequacy requirements from the banking supervisory authorities (lower equity and more profitability) since they were holding derivatives in their portfolios rather than regular mortgages loans portfolios (trading book).

American banks have strongly increased in recent years the use of securitizations, derivatives and SPVs and progressively reduced the traditional funding mix (represented primarily by the interbank market facilities, bank current and savings accounts, bank deposits, repos and bonds).

A massive and intensive CDO derivatives trading between investments banks, mutual funds, private equity funds, and other institutions has then spread the innovative and “explosive” financial engineering products all of the world making almost impossible to understand how many funds and organizations are exposed to these toxic derivatives and which bank has originally issued the mortgage subprime loans.

The greater worrying concern then becomes, how do SVPs, investments funds, financial analysts, rating agencies and banking supervisory authorities

monitor the quality of these mortgage portfolios which represent the underlying assets or collateral of complex CDO derivatives after their placement/trading on the markets occurs. Who is supposed to control portfolio risk deteriorations and assure timely and controlled risk assessment and disclosure on the markets? In Europe and other parts of the world Basel II has already been introduced in its advanced implementation approach (Advanced Basel II Capital Adequacy Framework) with the well-known pro-cyclical effects/problems, but in the U.S.A. the “Advanced Approaches Rule” has become effective only on April 2008, and starting from January 2009, the US banks that will implement the Basel II Advanced Approaches will be subject to a three years transitional floor period for potential capital reductions versus current risk-based capital rules.

Probably no one has really assured the necessary end-to-end controls in this complex process. Banks or banks’ management involved in the subprime lending were concentrated to boost convenient funding, portfolio growth (through massive origination of subprime and Alt-A mortgage lending), and profitability and to transfer credit risk to other counterparts, through securitizations, with moral hazard responsibility; the rating agencies have based their evaluations on pro-cyclical models and perhaps engaged in conflicts of interest; and the investment banks, private equity funds, mutual funds and hedge funds have been too busy trading and speculating frantically on these toxic derivatives every day, trying to maximize their short-term profitability while aiming to effectively control credit risk through advanced risk management and portfolio diversification strategies, CDOs trances and the use of CDS.

A Basel III and specific supervisory regulations will certainly need to be launched quite soon to overcome some of the shortcomings of the pro-cyclical effects of Basel II also to introduce adequate risk assessments for securitized assets, derivatives and SPVs.

The average level of leverage (debt) of the American families and in particular of the subprime segments (higher risk profiles) is very high and difficult to sustain in adverse macroeconomic conditions. The lack of rigorous and timely controls on credit policies, underwriting procedures, and portfolios risk monitoring of the rating agencies, banking supervisory authorities, corporate governance members, and internal auditing and risk management teams, associated with the opportunistic and short-term orientation of speculators on derivatives and short selling, have seriously contributed to the subprime mortgages fallout.

Certainly a mortgage loan borrower with a higher risk profile (subprime) and a high probability of credit default or bankruptcy (which is applicable in the U.S. also to individuals), who is also likely to lose

either his/her job or home purchased on credit (mortgage loan) or both, will probably have, sooner or later, a very hard time also to reimburse any type of credit exposure.

Furthermore, in case of a generalized worsening of the economic conditions the financial crisis may affect also the real economy with a significant decrease of consumer spending and consumer confidence levels. These conditions, if not offset by effective and timely economic stimuli of the governments and central banks (monetary policies, fiscal policies, investments, or adequate government protections and financial supports) will have an inevitable negative impact on the banking industry and in particular on the consumer and retail banking segments.

The situation may certainly improve in the medium-term with massive financial plans (recapitalization) from Governments and central banks to shore up the banks and investment funds, otherwise the risks will remain very high due to the lack of trust among banks.

The lack of reassurance of the investors who would scramble for liquidity, might cause in such difficult financial situations the risk of a potential implosion of the financial institutions. In these circumstances, as it has occurred in mid-October 2008, the signs of dramatic risks are the very high rates of *credit default swaps* (which are typically traded OTC and without a regulated marketplace) and the high rates of *interbank rates* (i.e., Libor, Euribor) which remained very high for a while, regardless of the massive central banks cash injections, interest rates reductions, and government bail-out deal agreements, protections from bankruptcies, commercial papers markets coverage and bank nationalizations.

The challenge we face today is that Governments and other institutions have to clean up the mess, save the global financial markets from their collapse, avoid a global recession, re-establishing some credibility and confidence in the banking and financial markets and in the consumers' minds. The social costs of this ruthless game may be quite high and in Europe (Eurozone countries) this may further worsen at least in the short/medium term some countries' difficulties to comply with the Maastricht convergence criteria due to their higher budget deficits and national debts.

The Governments intervention to shore up the banks and investment funds through bail-out deal agreements and the Troubled Asset Relief Program may prove to be useful in the short-term but it may also generate additional problems related to market distortions, thus somehow penalizing the "ethical financial institutions" in favour of the unethical ones.

According to the famous lessons of "Chicago School", there is no better and fair judge than the market to punish or reward "good" and "bad" players in the marketplace. The central issue in this very

dramatic case is not whether one should prefer the theories of the Chicago school, (i.e. Frank Knight, Friedrich von Hayek, Ronald Coase, George Stigler, Milton Friedman, Robert Fogel, Gary Becker, Richard Posner, Robert E. Lucas) associated with neoclassical price theory and libertarianism and with the view that regulation and other government intervention is always inefficient compared to free market, to the theories of Keynes about the need of Governments' interventions to come out of a serious recessionary crisis or depression.

The issue in this very serious financial crisis is that certainly "pragmatism" calls for immediate and effective rescue plans to save banks, financial markets and the overall international economic stability, nevertheless, interfering with the market mechanisms can be a very danger policy since it may generate serious distortions if not well orchestrated.

The failure in this financial crisis is not due to economic philosophies (Libertarianism versus Keynesianism) but rather to the lack of ethical values and behaviours of many players involved in the subprime mortgage lending and securitization/CDOs trading process.

The Third Pillar of Basel II was introduced to increase market discipline through enhanced transparency and disclosure in addition to the Second Pillar's supervisory review mechanisms. The Third Pillar was meant to develop a much more robust global risk-adjusted capital measure based on expected increase in transparency. Basel II has addressed also some issues related to securitizations.

The Governments' interventions, although reasonable, have certainly partially undermined the key central role of the market discipline as the true unbiased and independent regulator of the ethical or unethical behaviours of banks and financial institutions involved in the crisis. The limited regulatory policies and supervisory controls for SVPs, derivatives and OTC trading, as well as, the late interventions of the Governments' and Central Banks' bail outs, should not justify the banks' moral hazards or the rescue plans as an inevitable choice regardless of the banks' unethical practice and moral hazard.

The introduction of specific ethical codes for banks', hedge funds' and other financial institutions' management are in principles valuable initiatives to enforce more discipline in the industry practice and transparency, nevertheless however, what needs to be learned from this dramatic events, is that policies, procedures and ethical codes alone are not sufficient, since the crisis was not caused only by the lack of effectively regulated markets. Even rating agencies, supervisory and regulatory authorities have probably had their share of responsibilities in what has happened. This consideration provides just another useful evidence and confirmation that only the market discipline represents the primary and totally unbiased mechanism to assure ethical and fair practice in the

industry when all activities in the financial markets are properly regulated and controlled. The problem with the intervention of Governments to save banks from bankruptcy is related to the fact that it can certainly immediately mitigate risks and avoid “domino effects” in the financial markets, but it does not restore so easily investors’ trust towards these financial institutions or in the organizations that should have controlled their equity, debt, credit, market, operational, liquidity, and financial risks.

The primary moral hazard in this dramatic financial crisis should be associated to the lack of adequate preventive controls of supervisor authorities, the potential conflicts of interest of rating agencies, the unethical practice of banks’ risk management professionals, and the unrealistic expectations of senior executives and global investors to maintain sustained double digits profitability growth for a number of years.

With regards to this last point, in particular, it has probably come the time to start thinking about a new way of measuring company’s and investors’ profitability. The new approach should probably account also elements of Corporate Social Responsibility (CSR). Banks’ and companies’ management and shareholders should start measuring their profitability with the following indicators:

- **SROI** © = sustainable return on investments;
- **SROE** © = sustainable return on equity;
- **SP/E ratio** © = sustainable price/earning ratio;
- **SDCG** © = sustainable dividends and capital gains;
- **SRS** © = sustainable reward system (salaries, bonuses, stock options, incentives to the management).

The concept of sustainability, of course, should be based on the bank’s liquidity, financial, economic, and leverage position, planning and strategic vision, market conditions, and full disclosure and regulation over all existing assets and liabilities (internal and external – SVPs).

As much as possible, all financial activities should be traded and negotiated in regulated and controlled markets.

More in general, the complex issue today is also related to how can our society, political and legal systems, business schools, universities, educators, religious entities, communities change the greedy, individualistic, and short-term orientation of some key players of the financial markets industry (hedge funds, mutual funds, private equity funds, investment banks and others) to become more socially responsible and committed to the long-term sustainability of their organizations, employees, stakeholders, communities, nations, and to the world peace and sustainable development. Our moral responsibility as a society is to live, share, develop, enrich and hand-over the world we have received from our parents and ancestors to the new generations

and possibly a better world than the one we have received.

Our responsibility is to breed a new generation of business and political leaders who can pursue their goals and ambitions of successful careers and personal lives in the best interest of the whole society and not only to satisfy their greed, selfishness, and short-term speculative goals.

If our legislators and our regulatory authorities believe that just by assuring billions of dollars to avoid global economic collapse or by imposing new and more strict laws, policies, sanctions and controls on these ruthless and unethical senior executives will be sufficient to assure a new era of socially responsible leaders, then they are just heading for a very big disappointment or other speculative disasters to come in the future.

There is no benefit from any painful experience when there is no lesson learned.

Banks, investment funds, and financial institutions in general base their mission, reputation, corporate image and identity on their professional behaviour, transparency, reliability, solidity, competence and integrity. “**Trust**” is that single word that theoretically should symbolized and summarize what a bank really means to customers, other financial institutions and the whole society.

Now if we consider that in the last weeks of September 2008 banks and investment funds did not trust one another for mutual speculative reasons, how can people and the whole society still trust many of these banks and financial institutions? The dramatic events of the subprime crisis have demonstrated to our society that today the global banking and the financial markets systems are quite sick (with the necessary exceptions, of course), and not just for a temporary, devastating, and socially expensive liquidity crisis, but for a much more insidious and persistent problem to solve, the lack of trust towards socially irresponsible individuals and organizations operating in the global finance industry.

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A UNIFYING PHILOSOPHY OF GOVERNANCE

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Abstract

Bertrand Russell won Nobel Prize for arguing that science has triumphed over religion. Since religions are based on god, Russell's argument implies that science has triumphed over both religion and god. But neither Russell nor anyone else has ever defined religion and god, rationally. The assertion about triumph of science (which is founded on rationality) over concepts such as religion and god (which are not defined rationally or scientifically in the extant literature) cannot be rational. This paper offers a novel rational philosophical foundation for the concepts of god, religion and science in which the claim that science triumphs over religion is redundant.

This paper also presents substantial new insights about epistemic truths to help resolve current problems facing humanity like financial moral hazard and terrorism which have unnerved nations worldwide. The humanity now begs to answer a fundamental question of how we can govern ourselves. This paper offers a coherent set of credible answers. In particular, it offers a coherent unified philosophy about how humans have universally formed beliefs to govern themselves and how this philosophy could help resolve current problems. The universal rendering of beliefs articulated here subsumes the extant characterization of probability beliefs in mathematics, science, engineering, economics, religion and philosophy. The universal beliefs so articulated in this paper obviate the currently prevalent philosophical conflicts between religion and science or between theism and atheism and paves the way for optimal governance for prosperity amid stability. This philosophy also offers a rational characterization of the spiritual notion of Nirvana or salvation of the soul and the notion of epistemic truth. The unifying philosophy can help humanity achieve unity, stability and prosperity, sans financial moral hazard, antagonism, wars, nuclear proliferation, global warming and atmospheric pollution.

Keywords: Governance, Financial Moral Hazard, Unifying Philosophy

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1. The Founding Philosophy of Modern Governance

Bertrand Russell⁴⁴ won Nobel Prize for arguing that science has triumphed over religion. Since religions are based on god, Russell's argument implies that science has triumphed over both religion and god. But neither Russell nor anyone else has ever defined religion and god, rationally. The assertion about triumph of science (which is founded on rationality) over concepts such as religion and god (which are not defined rationally or scientifically) cannot be rational. This paper offers a novel rational philosophical foundation for the concepts of god, religion and science in which the claim that science triumphs over religion is redundant.

The constitution has become the lodestar for framing laws to govern humans in most, if not all, countries. How and why did the humans bank on a constitution and rules of law, instead of living in jungles as they did centuries ago with the animals?

Early on, humans living in jungles needed to herd together (like many vulnerable animals do even today) to protect against predatory animals. But within a herd, some humans meted violent oppression of others. Violence among humans threatened survival of all humans because even the strongest among them needed the support of the rest to survive the onslaught of the predatory animals.

The intelligent humans then developed language for communication and scripted 'commonly acceptable beliefs for coexistence [CABE].' Those who scripted such CABE were treated as 'god' or 'reincarnation of god' or 'son of god' or 'prophet.' The CABEs became religious scripts like Gita, Bible, Koran, etc. The transgressors of CABE were called sinners for punishment by 'god.' The CABE authors created administrators (kings with gendarmes) to mete punishment to the sinners.

Humans eventually reformed the CABE as modern rules of law. How? When some of the mighty administrators committed sins, while a warrior-philosopher like Krishna of the epic Mahabharat era did not exist to array the then warriors like Arjuna to punish and eliminate the sinners, humans made the

⁴⁴ Bertrand Russell (1935, 1961), "Religion and Science," Oxford University Press.

most judicious among them the 'Lords' (like in Britain) to refine the CBAE into modern rules of law. The Lords interpreted the law to ensure conformity of human behavior with law and to prescribe due punishment to the transgressors. The idea of modern governance thus originated.

Subsequently, however, the mighty administrators transgressed the law, surreptitiously and discriminatingly, which even the Lords could not detect. For example, when Britain printed sterling pound in London to acquire sweat-filled merchandise and service from the American colonists and the British Lords did not do anything about it, the former united to revolt against usurpation and subjugation by the latter. After winning the war for their independence, the American founding fathers scripted the first modern constitution. Constitutional governance thus originated.

But even constitutional governments worldwide have adopted laws and procedures which are economically inefficient and unconstitutional.⁴⁵ Furthermore, humans have bumped into intellectual conflicts between religion and science and about separation of religion from governance. The purpose of this paper is to offer a unified philosophy of governance which obviates such conflicts. This philosophy lays the foundation for moral hazard free first-best efficient governance.⁴⁶

2. The Necessity of a Unifying Philosophy in Governance

Should a society be governed by religious scripts like Gita, Bible or Koran or by the modern constitution?⁴⁷ The religious scripts prescribe codes for how humans

should form beliefs and govern themselves. Some people feel that their religious scripts are superior to every other form of governance and advocate elimination of humans who do not follow their scripts.

Scientists have argued that religion should not interfere with governance. But they have failed to articulate god, even scientifically. This failure leaves scope for some people to believe that their god and religion are superior to others and that they have a right to wage suicidal war against others. This is the source of terrorism that is vitiating a common human longing for prosperity amid stability.

This paper articulates a unifying philosophy of governance - Universal Beliefs and Universal God - that can be acceptable to the followers of all religions as well as to atheists and scientists. We argue that the unifying philosophy subsumes ancient religious beliefs, science and atheism.

The goal of the unifying philosophy is to awaken humans to think of the unifying philosophy in governance in order to attain their common longing for prosperity amid stability. We argue that the unifying philosophy of governance is the most potent nonviolent weapon against terrorism and financial moral hazard that hobble attainment of the common human longing. The unifying philosophy of governance should be urgently publicized to thwart terrorism and financial moral hazard nonviolently and to beget prosperity amid stability.

3. Beliefs, Religion, God and Science

Humans have formed their own beliefs about the set of unknown elements of the universe. Such beliefs are called probability beliefs in mathematics, science and engineering. Humans have branded their beliefs about the elements in the unknown set as religion. Even economists characterize the probability distribution of the unknowable random error in an econometric model as their religion.

The measure theory on probability beliefs about the uncertain elements of the universe is a rationally defined doctrine or religion. This theory is widely used to characterize probability distributions in mathematics, science and engineering. Assumed probability beliefs about the states of nature are crucial for asset pricing which is central to the fields of economics and finance. The concept of wealth cannot be formalized without such beliefs.

The process of formation of beliefs about the unknown elements is thus common to all fields including religion. But this common process does not automatically produce a unifying philosophy of governance because of the incoherence in beliefs about god across religions. The atheists and scientists do not accept god, while the religious individuals do.

The challenge of articulating a unifying philosophy thus rests on rendering god in a way that

⁴⁵The first-best system of money and finance has triumphed over the second-best system: See Acharya (2012), "Arbitrage Pricing of Total Risk of Assets and Efficient Governance of Financial Markets" at <http://pro-prosperity.com/Research/moralhazardliberty.pdf> and Acharya (2012), "Economic Inefficiency and Unconstitutionality of Short Selling and Privileged Private Market Clearing House," forthcoming in the Journal of Investment Management and Financial Innovation, at <http://pro-prosperity.com/Research/Sub-Optimality%20of%20Short%20Selling.pdf>

⁴⁶ See Acharya (2012), "First-best Management Academy, Proposal for Consideration by Global Leaders," at <http://pro-prosperity.com/Research/First-best%20Management%20Academy.pdf>, Acharya (2011), "Begetting First-best status for Principals," at <http://pro-prosperity.com/Begetting%20first-best%20status.html> and Acharya (2012), "Winning Economic Philosophy of Governance," at <http://pro-prosperity.com/Winning-Economic-Philosophy-of-Governance.html>

⁴⁷The constitution, per se, can be scripted with a commonly goal. See Acharya, S. (2011), "No-subsidy (self sufficiency) Mantra of Governance needed to Attain the Most Efficiently Competitive Economy," <http://pro-prosperity.com/Research/Governance-and-Most-Efficient-Competitive-Economy.pdf>

will be commonly acceptable to the religious people as well as to the scientists and the atheists.

To render god coherently, we divide the set of all elements in the universe into two disjoint subsets. The first subset comprises all elements of the universe that are known to humans. Call the first set **Knowledge**. The second subset contains the rest of the elements of the universe. Call the second set **Unknowable**. The two disjoint sets are not static. They are evolving dynamically over time. **Knowledge** is expanding. **Unknowable** is shrinking, but it still remains infinite, or Anant in Sanskrit.

Our unifying philosophy renders the **Unknowable** set as **Universal God** and beliefs about the elements in this set as **Universal Beliefs**. We call the set of unknowable elements **universal god** because it forms the common basis of characterizing god in all the existing religions.

The Universal God is **known** as the set of unknowable elements. This is unlike the existing proclamation by many that God is unknown.

God cannot be simply unknown. A coherently rendered God should comprise the whole unknowable set of elements. Why? Suppose that god is simply unknown, as believed by the followers of current religions. An unknown god will simply be a subset of the Unknowable set. But every religion also admits that god is Almighty. This means god cannot be a mere subset of the Unknowable. It is because such a subset will exclude some elements of the Unknowable that are not within the reach of god. This shows that god, as the unknown Almighty, must be the entire Unknowable set. The Unknowable is thus a coherent rendition of a Universal God that can be accepted by followers of current religions as well as the scientists and atheists.

Humans at any point in time do not know the elements in the Unknowable at that time. But they know the existence of the Unknowable. The Universal God is thus known as the Unknowable set, while its shape or the elements it comprises are unknown.

In **Universal Religion**, those who are expanding **Knowledge** are like "Sons of God." A quest for new knowledge is tantamount to a longing to uncover some elements of the **Unknowable**. The longing to reach god in the existing religions is called prayer. The longing to reach **Universal God** in **Universal Religion** is called scientific research, perseverance and tenacity.

Scientists are true **Sons of God** because they are continually uncovering the elements of the **Unknowable**, which is **Universal God**. Now pause for a moment to ponder why this notion of Son of God applies equally to Einstein, Vivekananda, Christ, Mohammad, Krishna, and Mahatma Gandhi. They were all seeking new knowledge by discovering some elements of the set of **Unknowable**, which was mystery to the rest of humans at the time.

Mahatma Gandhi, for example, uncovered a new methodology called Satyagraha to liberate the subjugated humans. Satyagraha is non-violent protest against unfairness and injustice. Satyagraha's potency against injustice was unknown to humans then. The humanity followed and revered Gandhi because of his potently successful discovery of the new way (Satyagraha) of achieving freedom from the oppressors. The new method or knowledge that the Mahatma unleashed was unknowable before he enunciated it.

We could extend the above logic about new discoveries of elements from the Unknowable set to describe that Einstein,⁴⁸ Christ, Swami Vivekananda,⁴⁹ Mohammad and Krishna as Son of God or Prophet or Reincarnation. The central point being made here is discovery of sufficiently important unknown elements of the Unknowable set that induces humans to treat the discoverer as superior to themselves.

Hindus (people living in India) called Krishna as a "Reincarnation" of God. People in the Middle East called Christ as "Son" of God. Mohammad improvised the term "Son" or "Reincarnation" as "Prophet." These humans have basically articulated some (scientific) process to uncover some elements of the **Unknowable** or **Universal God** as in **Universal Religion**.

So the Christians, Jews, Muslims, Hindus, Buddhists, Sikhs and all others can intrinsically believe in **Universal Religion** and **Universal God**.

Knowledge is time-specific. **Knowledge** evolves over time. It is a Sigma Algebra in mathematics and Information Set in Economics. Every field of science rests on a system of beliefs or probabilities about uncertain states of nature. These beliefs are used to form expectations about the uncertain states for decision making and controlling of events in science. Beliefs in the field of financial economics are used to determine prices of commodities and services. Beliefs are thus the basis of wealth and prosperity. **The system of modern scientific beliefs is thus subsumed within Universal Religion**.

Any economic variable like household income can be decomposed into two parts: (i) one which is conditional on all the information of the economist and (ii) the other comprising the rest, which is characterized as an unexplainable random variable or the error in the model. Economists assume (form beliefs) that the unexplainable random error follows certain theoretical properties. Their assumption (belief) is "religious" as admitted by a prominent professor of economics during my doctoral studies.

48 See Walter Isaacson, April 2004, "Einstein's Religion and God," Washington Post, <http://www.pro-prosperity.com/Einstein%20and%20God.html>

49 See Swami Vivekananda, "The Known and Unknown," <http://www.pro-prosperity.com/Knowledge-Vivekananda.html>.

Some economist can have a better model that can explain a greater part of an economic variable like the household income. The random error (unexplainable or unknowable part) in the better model shrinks the set of uncertainty in explaining household income. Humans tend to call the random element in their household income as **Luck** (bad or good) because they cannot explain the random draw in this error, based on known factors that are supposed to determine income.

4. Presaging Epistemic Truth

This section (written on October 9, 2011) stems from persistence of friends close to me about how someone sees the truth. Hindus have often depicted truth as god and god as nothing but the truth. This is perhaps why a truth-abiding M.K. Gandhi could endear the masses, become their Mahatma (great-soul), and gain freedom for them from colonialism. I have so far replied mundanely that she should verify my track record of how accurately I presaged events like the financial catastrophe of 2008 or the collapse of the US banking system, presaged since 2003.⁵⁰ I have also explained to my friends that my foresight is not based on either esoteric serendipity or standard econometric forecasting techniques. It is rather based on a more general model of economic equilibrium than any other scripted in the literature.⁵¹ This model showed that the economy would gravitate to an equilibrium presaged by my model. But my friends have remained unconvinced so far about how I could see the truth that evaded stalwart experts that control the academy, government and industry. The finance-economics experts have admitted before the US

Congress-appointed Financial Crisis Inquiry Commission that no one in the academy, industry and government saw the financial catastrophe of 2008 coming.⁵²

The dictionary definition of truth is: conformity to fact.

How does one conform to fact, for example, that the current financial system is plagued by moral hazard before the 2008 financial catastrophe exposed the truth to everyone?

⁵⁰ See Acharya, S. (March 2003), "Warning to the US Congress on Current Home Mortgage Debacle," <http://pro-prosperity.com/Global%20Economy%20Chatterbox/Warning-USCongress-In-2003-On-Home-Mortgage-Debacle.html>

⁵¹ See Acharya, S. (2010), "Economically Efficient Constitutional Governance," [http://pro-prosperity.com/Research/moralhazardliberty .pdf](http://pro-prosperity.com/Research/moralhazardliberty.pdf)

⁵² See "Financial Crisis Inquiry Report, the Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States," submitted by the Financial Crisis Inquiry Commission, pursuant to Public Law 111-21, January 2011, <http://www.gpoaccess.gov/fcic/fcic.pdf>

I have narrated in my research since 1991, the financial moral hazard stems from collusion between central bank regulators and mega bankers.⁵³ Mega bankers are the members of the market clearing house who drafted the Federal Reserve Act in 1913.⁵⁴ This Act permits the American central bank (Federal Reserve) to discriminately lower the cost of its created funds lent to mega bankers. The mega bankers then take huge leveraged bets to facilitate unconstitutional usurpation of people's savings in financial markets.⁵⁵ I have proved within a general equilibrium model that financial moral hazard can be resolved efficiently by scrapping the federal deposit insurance, by offering equal central banking facility to all firms (not just banks) and households, and by reforming trading rules to make them free and fair for all according to constitution.

I saw the seriousness of preemptive resolution of the financial moral hazard problem through adoption of equilibrium policies, when I observed that mega banks were transgressing the bank foreclosure rule enacted in the Federal Deposit Insurance Corporation Improvement Act of 1991. The bank foreclosure rule states that banks with lower capitals than a minimum threshold will be closed. This rule originated from my research with J.F. Dreyfus published as "Optimal Bank Reorganization Policies and Pricing of the Federal Deposit Insurance," in the *Journal of Finance* in 1989.

After the bank foreclosure rule was enacted by the US and adopted in Europe, mega banks tinkered with their holding company structure for multi-tier leveraging by diluting their consolidated capital (risk to owners) significantly below that requirement by law. The mega banks are the major bank holdings companies and members of the Clearing House. They have had full away over the Federal Reserve. Mega banks down-streamed their parent company debt as equity to their subsidiary banks to meet the minimum requirement at the subsidiary bank level, not on a consolidated basis for the entire bank holding company. The Federal Reserve regulators permitted the parent company debt as subsidiary bank equity

⁵³ See Acharya, S. (1991), "Efficient Resolution of Moral Hazard via Capital Markets: Monitoring Banks," *Finance and Economics Discussion Series*, Board of Governors of the Federal Reserve System, Washington, D.C. The model in this paper is available in "Economically Efficient Constitutional Governance," at <http://pro-prosperity.com/Research/moralhazardliberty.pdf>

⁵⁴ See the current list of The Clearing House members at <http://www.theclearinghouse.org/index.html?p=070878>

⁵⁵ Unconstitutionality and inefficiency of the current system of money and finance is proved in a more general model of economics than any other ever scripted: "Economically Efficient Constitutional Governance," <http://pro-prosperity.com/Research/moralhazardliberty.pdf> See also, Acharya, S. (2010), "Constitutional System of Money and Finance," <http://pro-prosperity.com/Research/Constitutional-Monetary-Finance-System.pdf>

and thus effectively transgressed the bank foreclosure law enacted in 1991. This transgression permitted mega banks to increase their leverage multi-fold to gamble with cheap government insured deposits and Fed funds. The mega banks siphoned off the profits from the gambles as dividends and executive compensation and bonus, while piling the residual losses within banks for people to bear.

I saw the truth about financial moral hazard between mega bankers and government regulators since 1994, when my presentation about the increasing leverage at mega banks was covered by top Fed officials in a meeting at Citigroup. I then chose to be unshackled from my position of Financial Economist at the Fed, After coming to the University of Illinois in 1995, I translated my mathematical equilibrium model to papers written in plain English and submitted the same to the US Congress in 2003 with preemptive policies to avert the catastrophe brewing due to financial moral hazard.⁵⁶ I had written then how the truth about financial moral hazard unfolding and erupting to a catastrophe to cost taxpayers trillions of dollars.

The truth I discovered about financial moral hazard is epistemic (knowledge-based). What is epistemic truth? If it could not be conformed to fact before the eruption of the 2008 financial catastrophe, how did I see it? In fact, the experts in the academy, industry and government have testified before the Financial Crisis Inquiry Commission that they did not see the financial crisis coming.⁵⁷

Could the inherent repertoire of my knowledge have retained relevant facts to conform to my observed events - like suppression by top Fed officials of my argument before top Citi management about multi-leverage diluting the bank foreclosure law and nonchalant rejection by top journals of my generalized model for efficient resolution of moral hazard without reviews and by returning my fees - to let me see the truth about financial moral hazard that the experts failed to see as per their testimonies before Congress? I knew how the experts controlling top journals were tied to the publishing houses owned by mega bankers and financiers and were benefiting from the status quo and why, as a result, they did not want to perturb the current system of financial moral hazard by accepting my papers. I also knew how the mega bankers were benefiting tremendously from the effective transgression of the bank foreclosure law

and how top regulators expected to benefit from the shenanigans after retiring from their government positions. The greater the number of rejection of my papers the deeper became my conviction on having seen the truth about the financial moral hazard stemming from collusion among top academic experts, government regulators and financial industry honchos.

But even the above explanation was not sufficient to my close friends to fathom how I saw the truth accurately. To them, being able to see the truth that stalwarts failed to see is like divinity. But labeling my foresight as divinity or even precocity does not offer a rational answer to their basic question about how epistemic (knowledge-related) truth is discovered. Their persistence led me to a more satisfactory rational answer, which may resolve the mystery about the discovery of epistemic truth like the truth about financial moral hazard that the mega experts and stalwarts in the industry, academy and government failed to see.

How does someone foresee the truth about some epistemic reality that others cannot, despite having the same models and knowledge? The academic experts, government regulators and industry honchos had received various revisions my papers. This question is different from verifying truth about physical objects, for example, whether the observed attributes of a newly discovered celestial body conforms to facts already existing in the body of human knowledge to establish the truth about whether the discovery is a star or a planet. My friends' question is about an epistemic reality (truth) like financial depression caused by moral hazard.

Sages have presaged epistemic truths at times when relevant facts seemed absent in the body of knowledge. For example, in ancient times humans could not conform as true the necessity of rules like (a) to not kill innocents or to not rob others and (b) to punish the killers and robbers for civilized coexistence. Yet, during those times, Krishna could presage such epistemic truths in Gita, which people universally conformed later as the true epistemic rules needed for civilized coexistence by adopting them as tenets of newly scripted (modern) constitution.

How can new epistemic truths be foreseen, absent relevant facts needed to verify conformity to reality? Rendering such foresight as divinity or precocity simply transforms the question to "What constitutes divinity or precocity?"

To answer this question, one needs to observe that the notion of epistemic truth is confined to humans. Humans have no knowledge about whether animals can conform to fact observed events to establish epistemic truths. The ability to conform to fact is inherent or genetic to humans. The human gene is able to store observed facts as knowledge and then verify conformity of a new discovery/claim to

⁵⁶ See Acharya, S. (2003), "Warning to US Congress in 2003 on Current Home Mortgage Debt Debacle," <http://proprosperity.com/Global%20Economy%20Chatterbox/Warning-USCongress-In-2003-0n-Home-Mortgage-Debacle.html>

⁵⁷ See "Financial Crisis Inquiry Report, the Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States," submitted by the Financial Crisis Inquiry Commission, pursuant to Public Law 111-21, January 2011, <http://www.gpoaccess.gov/fcic/fcic.pdf>

the stored facts to determine the truth about the discovery/claim.

The human gene is the repertoire of memory like epistemic logics. The gene mutates at birth. The repertoire of memory (e.g., epistemic logic) too is mutated (not completely erased) at birth. A new born child responds through cries when the care rendered is truly insufficient. The child obviously checks if the given care conforms to facts genetically retained as necessary conditions for survival.

As the child grows, the gene accumulates new knowledge. The gene does not guarantee retention of all the observed facts. Neither does it ensure a transfer of all accumulated facts from parents to the child at birth.

The human gene has survived so far. This survival is a testimony about the gene's nature to retain at least one epistemic element needed to conform as fact the conditions necessary for coexistence (co-survival) of its carriers (the humans). This must be the reason for why humans since time immemorial have searched for commonly acceptable tenets as their religion needed for coexistence or co-survival. Humans have struggled for better religions for coexistence. Even science (despite triumphing over prevailing religions) became a new religion with the mathematically characterized probability beliefs supplanting the religious beliefs about unknown elements of nature (uncertainties) faced by humans.

The epistemic elements (facts) retained within the gene may be dormant in some humans. These humans may not automatically know as true all the commonly acceptable rules for coexistence of humans. As a result, these humans may likely be subjected to harsher rules/conditions, like slavery or financial bondage, designed and imposed by others.

It may sometimes be possible to activate the dormant human genes by those who have active epistemic elements (facts) in their genes and, thus, have conformed as fact the truth about some new commonly acceptable rule for coexistence. Since the nature of the gene is to survive, any passive element within it can be activated when the gene's carrier (human) is subjected to survival problems. The tendency to fight for survival can activate the genetic repertoire of facts (or survival instincts) to compare the same with observed events-like financial catastrophe, bailout of banks, and no bailout of common people-to ascertain the truth about financial moral hazard in the prevailing system. When my research on efficient resolution of moral hazard was rejected by top journals without reason (despite having published in top journals and knowing the rule of the game of publishing), I faced immense threats for my intellectual or professional survival. The tendency to fight for survival must have activated my genetic repertoire of facts to conform to observed events (rejection of my papers) to see the truth about financial moral hazard.

Why did I choose such research which questioned the wisdom underlying the prevailing system of money and finance, despite credible advice I received to not pursue such research if I wanted to remain employed? This was again due to credible threats to my intellectual and professional survival, especially after I saw the 1987 when I was at New York University, which was just across Wall Street. By then I had already learned how the established experts controlling top journals usurped ideas from original papers of rookie researchers via an ordained blind review process or how a rookie had to be tagged to an expert to rise in the profession.⁵⁸ To survive, I had to write such papers (like the efficient resolution of moral hazard) which (i) the established experts would abhor to copy because they would thus undo the financial moral hazard from which they benefited and (ii) are so fundamentally important to society that the experts would lose if they rejected such papers in the journals they controlled. That I succeeded was incidental because some carrier of the human gene would have succeeded, presuming that the human gene would survive the threats from financial moral hazard.

The human gene has survived and is likely to survive. This made me almost sure that someone among us, the humans, would discover the epistemic truth about the prevailing system of moral hazard threatening the survival of humanity. I got into discovery of such epistemic truth not only because I faced threat for my intellectual and professional survival. It is also because I am an inquirer with an inherent sense of integrity since childhood. It was, therefore, natural for me to see how a more general model of economics than any ever scripted to resolve moral hazard efficiently was being rejected by my peers controlling the same journals where I have published other major papers. Such rejections not only enlightened me about the experts being tied to their cohorts in industry and government to perpetuate a myth about efficacy and efficiency of the established financial moral hazard system. They also emboldened me to aver that my discoveries were epistemic truths, which would eventually be accepted by all for survival of humans.

The above discourse conjoined with how the mammoth dinosaurs perished may shed new light about the future of the human gene. Dinosaurs grew large, killed smaller animals and ate away the vegetation on earth. A slight perturbation in the environment like dust spewed from a meteoric collision with earth perhaps destroyed the remaining vegetation to kill the gigantic dinosaurs. But other micro organisms like, perhaps, the human gene survived on earth.

⁵⁸See Acharya, S. (2010), "Blind Review of Papers Unconstitutional and Detrimental to National Competitiveness," <http://pro-prosperity.com/Blind-Review-Academic-Papers-Unconstitutional- Uncompetitive.html>

The human gene might have evolved from the micro organisms. Or, it might have coexisted independently and survived the onslaught of violent animals on earth. Either possibility (evolution or creationism) is consistent with the truth that the human gene has so far proved indomitable. It is because of the human gene's ability to devise safeguard mechanisms (like dwellings, food, defense and a system to thwart financial moral hazard) for its carriers to coexist. Even the rules of conduct (introduced as religious tenets) are based on a common longing to coexist. The humans have devised different religions because of physical separation of various groups. The advent of transportation and electronic communication has, however, diluted the physical separation. As a result, humans have transcended their national, religious and racial barriers to device common systems of coexistence like communism, capitalism, socialism, democracy and dictatorship. The search for better systems for coexistence continues after the collapse of communism and tottering of democracies. A better system adopted in one place on earth, it is immediately transplanted elsewhere. Such search for coexistence will thus converge to a universally acceptable philosophy of governance, devoid of parochialism and moral hazard of the bygone era.

5. Universal Salvation

The existing notion about the following spiritual concepts may not appear to vibrate with Universal Religion scripted here:

- a. Soul
- b. Conglomeration of all Souls or Paramatma
- c. Prayer
- d. Salvation or Nirvana or Moksha

Spiritual Hindus and Buddhists have believed that the soul, resident within a human body, can achieve Moksha or Nirvana or Salvation. Where exactly the soul resides in a human body is unknown. Moksha is described as a state of unification of an individual soul with the Paramatma or conglomeration of all souls. Paramatma is also considered as the god. The idea of reaching god as per prevailing religions is spiritually equivalent to a unification of an individual soul with the Paramatma through prayers and benevolent acts.

One can obtain an epistemic reconciliation of the above spiritual concepts with the Universal Religion by defining as follows:

- i. Individual wherewithal to survive - Soul
- ii. Universal or common wherewithal to survive - Paramatma
- iii. Research for discovery of means to survive - Prayer
- iv. Indomitable pursuit for enhancing universal wherewithal - Moksha

Recognize that the human gene has survived the vagaries of nature, animals and devilish humans. Every individual has a will to survive. By the definition of the scientific principle of *survival of the fittest*, the surviving pool of human genes is more powerful than the rest that perished. One can then envision "god" as the most powerful being (almighty) attainable from the multitude of combinations among the human genes in this pool. Such epistemic envisioning is consistent with the idea that humans are children of god. Universal Religion thus unifies the scientific notion of *survival of the fittest*, if not the theory of evolution, with the idea that humans are parts (children) of god.

The individual wherewithal to survive is rooted in the gene. It is composed of accumulated knowledge and tools needed to circumvent or fight against threats. If an individual has little wherewithal for his survival, he may feel totally helpless and commit suicide. A weakened individual may also seek others' help to struggle for mutual survival.

The individual wherewithal is dissociated from a dead body when the gene dies. But it joins the pool of human knowledge on common wherewithal. The living humans conduct research about the reasons of death to gather any new knowledge for common survival. All gathered knowledge is stored in the surviving human genes.

I define the indomitable pursuit for enhancing the wherewithal for common survival as Moksha in Universal Religion or *Universal Moksha*. The individual who is innately impelled to make such pursuits cares for survival of his body only to strengthen the wherewithal for common survival. He is selfish only about common survival. He treats those who jeopardize common survival as devilish. He pursues for elimination of devils, even if doing so jeopardizes his own body. Not everyone who reaches *Universal Moksha* can eliminate devils. But those who do will perhaps be deemed by others as the saviors or Messiahs.

The individual who attains *Universal Moksha* does not pine for being the savior or Messiah. But the pool of genes that produce such individuals would produce the savior, if one were to presume that the human gene would ultimately survive, especially, the onslaught of devilish humans.

Only today (October 8, 2011) did I ponder over the meaning of soul, Paramatma and Moksha in the context of Universal Religion. I went through spiritual lessons when I was about 18 years old. The spiritual guru then trained me for dissociating from the mundane matters of life to have unification of my soul with Paramatma. I never approached any spiritual guru thereafter. At about 45 years of my age, however, I have had an automatic transformation in my endeavors to pursue only for common good and to focus on self interest only for survival needed to pursue for common good. My only goal since then has been to feel satisfied by the time of death that I

have pursued for common good, whether or not something tangible came out of my efforts.

The definition of *Universal Moksha* implies that I have attained *Universal Salvation* despite my pursuits to preserve and care for my physical life as necessary to attain common good. The spiritual gurus may not agree that I have attained their notion of salvation because I have not dissociated from mundane affairs of life. I have always considered that retention of one's life is necessary to pursue for common good.

Universal Salvation is not really attained when an individual's wherewithal is weakened badly enough to protect his physical body, i.e., when the body dysfunctions to be dissociated from the will to exist. *Universal Salvation* comprises:

- a. Dissociation from those pursuits for self interests, which weaken the wherewithal for common survival.
- b. Association with those pursuits, which enhance the wherewithal for common survival.

Attainment of *Universal Salvation* necessitates preservation, not weakening, of one's body. Rendered this way, salvation is truly exhilarating because the pursuits for fulfilling the common longing of people for survival beget at least a vicarious pleasure of having the tacit support of the entire society for such individual efforts.

My friends and relatives have often questioned my wisdom in facing hardship wrought by the research that jeopardizes the interests of powerful people. But I have always been exhilarated by such research, despite rejection by the journals controlled by the same powerful interests and in spite of the immense sacrifice in my career advancement. My exhilaration does not stem from hurting the established powerful people through research pursuits. It comes from a conviction that I have pursued selfless research to discover immensely essential wherewithal for common survival of humans.

6. Parochialism creates devilish leaders and threatens common survival

To safeguard against the threat from violent animals, humans organized themselves in societies. But living together required rules for coexistence. Formulation and administration of rules needed leadership. When the societies grew large, leaders and their cronies schemed to exploit the society to beget for themselves free service and produce. Such scheming resulted in groups or societies based on religion, color, culture, caste, etc.

The society served the leaders out of necessity. This created moral hazard because the leaders were empowered to formulate rules for coexistence. Over time, leaders formulated more and more sophisticated rules to usurp wealth and servitude from society as long as people could tolerate.

To keep their society under control and to divert attention of people from exploitation via sophisticated rules, leaders often concocted enmity with neighboring societies and beyond. They painted superiority of their society over the rivals. The painted hubris united people within a society (nation) to war against other societies. Leaders justified wars by the usurpation of wealth and servitude of the vanquished. Then a sense of injustice brewed within societies or groups which could not win wars and faced threats for their survival. This led to insurrection and terrorism against the victors.

To avert terrorism, it is necessary for humans to recognize the common threat to their survival as parochial leadership based on, for example, religion, nationalism, color, caste and even academic ordains.

A real common threat to survival of humans is nuclear bombs, which came into being due to nationalism everywhere. Nationalism in Japan and Europe threatened peoples everywhere. This led some people to produce nuclear bombs as soon as some humans perfected the idea. Using the nuclear bomb against Japan only encouraged other nations to produce the lethal weapon for survival. Even the champion of nonviolence, Mahatma Gandhi, tacitly encouraged the first prime minister of India to produce the bomb to preserve the arduously attained independence of his nation.

A parochial academic ordain is (a) to subsume the supremacy of markets run by the prevailing system of money and finance and to accept rules that serve the beneficiaries of this system, and (b) to not publish any research (in the journals controlled by the same operators and their academic cohorts), for example, on financial moral hazard, which proves that the prevailing system can cause financial catastrophes to jeopardize peaceful coexistence and which discovers new wherewithal for common survival. Such ordain is parochial because it serves only the champions of the current system in the academy, industry and government by ruining others' hard earned wealth.

Parochialism is neither sustainable nor stable in the long run. For its survival, the human gene will eventually dissociate from parochialism by embracing the unifying philosophy or Universal Religion and God.

7. Evolution of the Philosophy of Governance

Krishna composed Gita to communicate a philosophy of governance of human behavior needed to restore justice and peace, even through war. Christ offered codes for human behavior scripted in the form of Bible. Swamy Vivekananda had once longed to have a common religion that could be acceptable to all humans. Our unifying philosophy of Universal Religion with the corresponding rendition of Universal God may fulfill that longing.

Two fundamental tenets of Prophet Mohammad that attracted Islam to one-fifth of humanity are (i) equality of all humans with no one like Christ as "Son of God" or Krishna as reincarnation of God and (ii) riba-free economy in which no money lender charges a positive interest rate. Saint Vashistha was the first to speak against usurious interest rates. Philosophers like Aristotle and Plato have spoken against usurious interest rates. A rich merchant like Mohammad became famous when he lent his money without interest and enunciated equality of all humans. Mohammad was very confident of his message. His following was so strong that he could not visualize the importance of amendments to his Islamic philosophy of governance scripted in Koran, Sunnah and Sariat in 700 AD. Islam views deviations from these scripts as blasphemy and metes severe punishments to those who deviate from or speak on irrationality of its rigid scripts. Some Koranic verses, unfortunately, advocate violence towards those (infidels) who do not accept Islam. The Islamic philosophy of governance advocates extinguishing relics and culture of all older religions.

The constitutional rules of governance have thus evolved through wisdom cultivated since the ancient times. Contrast the two fundamental Islamic tenets with (a) the first written constitution (that of USA) of the world which admits equality and (b) the American monetary system that follows a zero real interest rate policy. Americans do not prescribe decrees and fatwa. But they have rationally adopted the most important virtues of the Islamic philosophy through individual liberty, freedom, equality of opportunities and competition. America may thus be the most Islamic nation on earth. Most "Islamic" nations - ruled by dictators, monarchs and mullahs who treat themselves as superior to all other Muslims they lord over - are un-Islamic. Autocratic Muslim rulers are desecrating the principal tenet of Islam by treating themselves as superior to fellow Muslims. They are most un-Islamic. By accepting dictatorial rulers, most Muslims have disrespected their own Prophet's message. This is the most sacrilegious act of most Muslims against their own Prophet. Most Islamic nations are truly un-Islamic, despite the rhetoric of self-serving, aggrandizing, entrenching mullahs, dictators, and monarchs.

The religious scripts have basically prescribed how humans should govern themselves. The incoherence or blind faith about god in these scripts has, however, led humans to devise the constitutional system of governance and to separate state from religion.

Our *unifying philosophy* scripted as Universal Religion defines *prayer* as perseverance to uncover the truth through research about the set of unknown elements of the universe.

This philosophy treats the constitutional system of governance as a discovery through human perseverance. Humans following this philosophy will

still continue to *pray* the Universal God, i.e., to conduct scientific research to attain the truth about the unknown elements of the universe.

The democratic system of governance too evolved through human perseverance. The constitutional system of democratic governance is thus a principal tenet of the unifying philosophy of Universal Religion. This subsumes the human wisdom of philosophers, prophets, scientists and other religious preceptors. The other principal tenet of Universal Religion is to amend the constitutional system of governance over time. The guiding tenet of Universal Religion is to ensure that the constitution reflects the latest human knowledge and wisdom for governance of society. This is an almost universal agreement among all humans irrespective of their current creed, religion and national origin. Such universal agreement is very profound. This universality in agreement makes Universal Religion universal. Universal Religion is necessary to enhance prosperity and stability of humanity.

Can the universal tenet of "constitutional system of democratic governance" be taken as sacrosanct? It should be because no other tenet that is universally more acceptable. This common tenet is optimal for humanity, though it is not ideal.

8. Efficacy of the Unified Philosophy of Governance

A common human longing is to prosper in a society that can maintain stability. But prosperity is possible only if the philosophy of governance helps individuals produce globally competitive goods and services. Otherwise, the society will be uncompetitive, with perpetual trade deficits and weak currency.

Existing religions do not unify humanity and do not beget prosperity amid stability that every human inherently embraces. Preaching that some existing religion is superior to others is thus specious. So is indoctrinating humans at young age, when they cannot reason rationally.

If the philosophy of governance cannot help produce globally competitive goods and services, the leaders have two options: (i) admit failure of their philosophy to lose power or (ii) divert the society from the failed philosophy, fabricate external enemies and unite society to wage war or terrorism against the enemies. Societies that have wisely separated religious dogma from governance and adopted a system of changing leaders imbued in failed philosophies have remained stable and prosperous.

Only the unifying philosophy of Universal Religion, not the existing religious beliefs, induces humans to persevere and produce to attain prosperity amid stability for humans.⁵⁹ Only this philosophy jells with the inner spirit common to all humans.

⁵⁹ <http://www.pro-prosperity.com/Three-pronged-strategy-to-thwart-terrorism.html>

Propagation of this philosophy among masses can unify humanity and render all other religions beliefs superfluous. The state leaders should urgently broadcast the unifying philosophy of governance to beget prosperity amid stability.⁶⁰

The unifying philosophy is the best nonviolent weapon against terrorism. Masses of every religion long for prosperity amid stability, notwithstanding their indoctrination at young age when they could not think or decide. Terrorist leaders are driven by self-aggrandizement interests. But they cannot recruit suicide squads to engage in terrorism if the unified philosophy permeates among masses who inherently pine for prosperity amid stability. Masses will embrace the unifying philosophy to fulfill their longing for prosperity amid stability, and not die for a religious philosophy that fails to fulfill their longings.

Most humans have willy-nilly accepted religious beliefs of their parents when they were born, i.e., when they could not question or reason. But even parents should not impose on their children beliefs about anything including religion. Beliefs should evolve through own conscience and reasoning.

The humanity will eventually embrace the unifying philosophy of Universal Religion and God, for this is the only path to fulfill the common pining for prosperity amid stability in democratic capitalism. Political leaders representing the common longing should, however, propagate the common philosophy to hasten its acceptance by masses to avoid the pain and violence.

9. Is God the source of all knowledge?

It has been argued⁶¹ that "God is the source of all knowledge.... Knowledge is the mother of technology., technology is power.. USS Harry S. Truman has more destructive power at his command than the collective military might at the command of all Muslim generals on the face of the planet."

Such argument is specious as it implies that the Americans with all the knowledge of mankind are gods and omnipotent, at least the most powerful among all others on earth. But the Americans do not believe that they are gods when they (a) admit in their most sacred script, constitution and declaration of independence, that all are equal and (b) dissociate their governance from religions and gods. The American system of governance includes production and usage of knowledge, including that needed to build military might. Americans really follow Universal Religion and seek the truth through scientific research to discover the elements of the

⁶⁰ "Prosperity amid Stability: A New Paradigm for Democratic Capitalism," <http://www.pro-prosperity.com/Research/Prosperity%20Amid%20Stability%20-%20A%20New%20Economic%20Paradigm.pdf>

⁶¹ See Farrukh Saleem, February 2007, "The Capital Suggestion: Knowledge," The News, <http://www.pro-prosperity.com/Knowledge-Saleem.html>.

Unknowable (Universal God). They use the uncovered knowledge optimally and do not hesitate to wage wars against those who oppose such a path to seek truth, liberty and prosperity.

Having all the knowledge and using the same does not make the Americans gods. Aptly, though, the scientists among them and elsewhere in the world are sons of God. Societies that cannot retain and nurture scientists are doomed to fail. Failed societies (like the failed individuals) will see the successful ones as enemies.

10. Coherence of the Unified Philosophy of Governance

Rendering god as the set of elements unknown to humans obviates prevalent confusions and ambiguities about god and knowledge. Seeking new knowledge is like discovering the elements of the Unknowable through a process which is known as scientific research in modern thinking or traditional prayer to god in prevalent religions. Scientific research or prayer is intended to uncover the truth, i.e., bring to the domain of Knowledge some elements that heretofore were in the Unknowable set or were a part of Universal God.

The process of searching for the truth is common to science and religion. We thus have several unambiguous definitions: (i) the Unknowable is God, (ii) Science is Knowledge, and (iii) Belief about the Unknowable is Religion. Such transparent and coherent definitions can obviate prevalent confusions across current religions and fields of science. Coherence in rendition of a common set of beliefs can attract all humans to the same unifying philosophy irrespective of their current religions, races, castes, creeds and nationalities.

Coherence and universal acceptability of such definitions make Universal Religion truly universal.

Scientists need to form probability beliefs about the elements in the Unknowable set in the normal course of their research to make discoveries. Atheists and theists can treat the probability beliefs as the religious beliefs of the scientists. Scientists should have no hesitation to treat ancient religious beliefs as akin to the widely used probability beliefs. To form beliefs (be religious) about the unknown is human and common to all religions, branches of science and mathematics. We thus have a unifying philosophy of forming beliefs about the Unknowable that can be acceptable to the theists, atheists as well as scientists. The unifying philosophy is truly universal.

God has been perceived as the unknown almighty in every religion. Swami Vivekananda⁶² makes a powerful argument for why humans should seek knowledge by uncovering the truth about the

⁶² Listen Swami Vivekananda: <http://www.youtube.com/watch?v=TsBw68KLu3c>

unknown.⁶³ But he does not posit the Unknowable as God. The common perception that God is unknown does not automatically imply that the Unknowable set is God. In general, there could be many other elements including the commonly perceived God in the Unknowable set. This causes confusion about rendering God simply as unknown. Our rendering of Universal God as the complete Unknowable set avoids such confusion.

11. Coherent Rendition of God, Religion and Science

A universally acceptable rendering of god is necessary to complete a coherent philosophical view of science and religion. This is vital to avoid the mutual antagonism among people of different faiths.

Bertrand Russell very lucidly argues about science winning over religion. Scientists and mathematicians may not call the Unknowable set as god perhaps because of a legitimate fear of mixing the nomenclature followed in orthodox religions. But they cannot deny the existence of the Unknowable, which is rendered here as Universal God.

Bertrand Russell compares and contrasts the existing orthodox religious dogmas with science to conclude that science has won over religion. Such conclusions have been rooted on the Copernican Revolution on the principle of separation⁶⁴ of religious beliefs from governance of societies. The societies that have followed the principle of separation have prospered enormously. Countries like India have adopted the principle of separation, but not practiced it.

Philosophers like Russell, sadhus like Vivekananda, prophets like Mohammed, politicians like Gandhi and scientists like Einstein have failed to rationalize or define god which is common to all existing religions. With god undefined, humans will naturally remain incoherently mired in divers religious dogmas on god and the chasm between theists and atheists will continue. Raging debates on existence of god among rationalists, scientists and proponents of various religions will resolve little until we succeed in rationally defining god to live with universal human beliefs.

The definition of Universal God as the set of Unknowable elements of the universe is rational and should be universally acceptable to people following different orthodox faiths. This definition allows formation of rational beliefs about God (i.e., about elements of the Unknowable set) to test hypotheses as Knowledge expands over time. The definition of Universal God is necessary to complete a coherent

philosophical rendition of science and religion, which is vital to obviate mutual antagonism⁶⁵ among humans and societies.

12. Fundamental tenets of Universal Religion

Optimal determination of tenets of any religion should be based on enhancement of stability and prosperity of humankind. For example, democracy⁶⁶ is the best (though not ideal) form of governance accepted by humans as optimal. Democracy is thus a fundamental tenet of Universal Religion. Similarly, amending constitutional rules of law through optimal discourse and vote within democracy is the other tenet. Indeed, Gita in Hinduism, Bible in Christianity, Quoran in Islam and such scripts in other religions were meant to be "guiding" rules of governance for humans. These scripts have never been amended to incorporate the latest human wisdom including the democratic process of creation and amendment of the constitutional rules of law. They have, thus, become somewhat dogmatic and sacrosanct. The societies that have unshackled their governance from such dogma have enhanced their prosperity and stability.

13. Necessity of Universal Religion

Accepting Universal Religion does not amount to an automatic abandonment of current beliefs of an individual. This is nice because no individual will ever feel anything wrong about accepting Universal Religion as in a conversion to a different religion. Universal Religion gives a complete freedom to choose and even to refine the script through rational arguments in sync with human wisdom. Such freedom is enshrined in the constitution of countries governed by constitutional rules of law. Individuals following Universal Religion will see no inconsistency between governance of a constitutionally run country and their own religious beliefs. Universal Religion thus obviates the issue of "separation of church and state."

14. Conclusion

Bertrand Russell won Nobel Prize for arguing that science has triumphed over religion and god. But neither he nor anyone else has ever defined religion and god, rationally. This paper argues that the assertion about triumph of science (which is founded on rationality) over concepts such as religion and god (which are not defined rationally or scientifically)

⁶³ See Swami Vivekananda, "The Known and Unknown," <http://www.pro-prosperity.com/Knowledge-Vivekananda.html>.

⁶⁴ See Rebecca Newberger Goldstein, September 2007, "The Political and the Divine," New York Times. <http://www.nytimes.com/2007/09/16/books/review/Goldstein-t.html>

⁶⁵ See P.V. Indiresan, September 2007, "Ram, Religion and Religious Beliefs," Indian Express. <http://www.pro-prosperity.com/Ram-Religion-Science.html>

⁶⁶ See news report, September 2006, "World Religions Talk God and Democracy," ["http://www.pro-prosperity.com/God%20and%20Democracy.html"](http://www.pro-prosperity.com/God%20and%20Democracy.html)

cannot be rational. This paper also offers a novel rational philosophical foundation for the concepts of god, religion and science in which the claim that science triumphs over religion is redundant. It unifies the intellectual and philosophical thought process necessary for viability of modern governance. The unifying philosophy presented in this paper is the basis of my first-best system of governance, which has triumphed in the real-world over the prevailing second-best system.

Philosophy remains incomplete unless it covers the underlying the origin of modern governance and addresses the still prevailing conflicts between religion and science and about the separation of religion from governance. Humanity cannot be governed without removing the conflicts of thoughts in science, religion and god.

The purpose of a unified philosophy of governance is to help develop coherence in thinking to unite humanity under one banner of **A Unifying Philosophy of Governance or Universal God and Universal Religion**. The ulterior goal of such union is stability and prosperity of humanity through optimal governance⁶⁷ and by crippling the politico-financial-religious leaders who exploit the vast majority for self-aggrandizement and self-entrenchment in power with parochial self-serving policies. A follower of Universal Religion will still be a theist praying Universal God continually as slated above.

⁶⁷ See S. Acharya, October 2005, "Prosperity: Optimal Governance, Banking, Capital Markets, Global Trading and Exchange Rate." Citizens Publishing, <http://www.proprosperity.com/Citizens%20Publishing/TableOfContents.pdf>

