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EDITORIAL

Dear readers!

The recent issue of the Journal of Governance and Regulation pays attention to issues of risk management, deflation, credit ratings etc. More detailed issues are given below.

Nesrin Benhayoun, James Fogal present how following Islamic finance principles can offer substantive contributions to the economic and social development of the world by revealing the rational route to the vision of the highest good without the anathema of interests and debts' dependence and to embrace the goal to advance the needs of humanity as a whole. *Hilary Till* discusses the practical issues involved in applying a disciplined risk management methodology to commodity futures trading. Accordingly, the paper shows how to apply methodologies derived from both conventional asset management and hedge fund management to futures trading. The article also discusses some of the risk management issues that are unique to leveraged futures trading. *Rui P. N. Santos* studies the behavior of prices in a growing economy in which the money supply is held constant. The author shows that with increasing levels of output, it is a natural outcome that prices of economic goods will decrease over time, which it is what we define as deflation. In this context. *Harit Satt* defines the impact of analyst following (analyst quest) on firm's credit rating throughout the period between 2002 and 2014. The research' results exhibit that the level of analyst following has a positive influence on firms' credit rating. However, this constructive influence occurs only when there is a significant degree of analyst following. Indeed, at a low analyst following, the results reveal a negative correlation between this factor and the firm's credit rating. *Ryan Jacildo, Niny Khor, Ruth Tacneng* examine the effects of a mandated credit program to small and medium enterprises in the Philippines (Magna Carta Law) using a panel dataset compiled from official data published by the Bangko Sentral ng Pilipinas. The final sample of 109 financial institutions represented over 90% of total finance sector assets in the Philippines. They highlight three important findings. First, although the total lending levels to micro, small, and medium enterprises (MSMEs) grew slightly, the percentage shares of loans allocated to MSMEs declined drastically from a peak of 30% of total loans in 2002 to 16.4% in 2010. Second, following the upwards revision of the loan target (from 6% to 8%) for smaller firms in 2008, there was a sharp increase in noncompliance especially amongst universal and commercial banks. On the other hand, total loans to medium enterprises were still more than threefold larger than the targeted 2%. Third, there is an increased heterogeneity in optimal loan portfolio across banks. Most surprisingly, the absolute level of MSME lending by rural and cooperative banks declined since 2008. *Michael Dobler and Oliver Knospe* adopt a multi-issue/multi-period approach to provide new insights into key determinants of constituents' formal participation in the due process of the International Accounting Standards Board. Based on an analysis of 8,825 comment letters submitted during the period 2006–2012, authors find imbalances in the representation of constituents. Multiple regressions reveal that among various economic and cultural variables equity market capitalization and the society's level of individualism are the key drivers of the country-level of constituents' participation, and each variable has explanatory power over the other. The level of constituents' participation is positively associated with the number of input opportunities offered by a due process document but unrelated to the complexity of a standard-setting project. *Frank Emmert* discusses the differences between market economic models, socialist or planned economies, and economies controlled by monopolies or cartels, to make the case for competition supervision. Subsequently he argues for a broad approach to competition supervision - beyond a narrow view of antitrust law. *H. Kubra Kandemir* examines the differences between new and old forms of auditing with regard to the recent EU reforms and regulations. A critical analysis of the new EU law is provided by the author with some policy recommendations.

We hope that you will enjoy reading the journal and in future we will receive new papers, outlining the most important issues and best practices of corporate governance!

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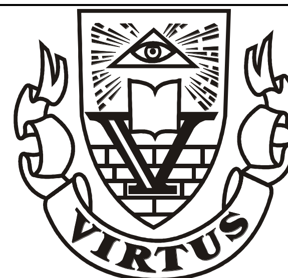

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"FAITHFUL MONEY" AS A NEW MONETARY CONCEPT OF THE ISLAMIC BANKING

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Abstract

Coinciding with the Great Recession, Islamic banks have grown rapidly and have crossed the significant milestone of increased wider acceptance at a global level. In part this is due to their unique behavior in considering both ethical and economic activities rather than focus of profit only. This presents a departure from the conventional finance systems based on the use of the interest and the time value of money. This has led to propose new pattern named 'Faithful Money' for valuation of money and for a performing monetary policy according to Islamic finance basics. This paper presents how following Islamic finance principles can offer substantive contributions to the economic and social development of the world by revealing the rational route to the vision of the highest good without the anathema of interests and debts' dependence and to embrace the goal to advance the needs of humanity as a whole.

Keywords: Faithful Money, Interest, Time Value, Islamic Banking

1. INTRODUCTION

The banking is considered one of the main components of the world financial system. It has a broad impact on the entire financial market stability and the real strength of the economy. Banking system connects the fundamental economic units and plays the role of financial intermediation. It helps in the creation of wealth through the establishment of a series of interconnected economic relations. Consequently, any disturbance in the conventional banking sector has significant implications for the overall economic, primarily due to the banks' heavy reliance on interest rates which are marked by instability and volatility.

While conventional banking uses the interest rate mechanisms to perform its financial tasks, Islamic finance, by contrast, is based on the notion of the prohibition of interest (riba). Attempts to avoid dealing in interest have led to the introduction of an interest-free banking system, commonly known as Islamic banking. Islam disallows interest but calls for trade-based banking or a system of profit and loss sharing as the basis of investment. Given the special features and characteristics of Islamic finance, modern Islamic banking has developed techniques that replace interest income with cash flows from productive sources. It particularly attempts to find more socially acceptable and attainable substitute to the interest bearing modes of financing in the desire to provide justified distribution of wealth.

Since the consecutives financial failures, the efforts of economists, experts, policymakers and governments around the world have been focused on strengthening market forces to achieve optimal economic growth and sustainable development at national and global levels. A relatively small number of individuals and corporations control huge pools of capital and find no other way to continue to make money on the required scale, than through a heavy reliance on finance and speculation. This is a deep-seated contradiction intrinsic to the development of capitalism itself. If the goal is to advance the needs of humanity as whole, the world will sooner or later have to embrace an alternative financial system. There is no other way. (Usmani, 2010) (Brand, 2014-2015) (IFSB, 2015) (El-Gamal, 2006)

Money is the most strategic factor in the functioning of any financial system. The status, value, role and functions of money in Islamic finance are different from those in conventional finance. In the conventional system, money is considered a commodity that can be sold/bought and rented against profit or rent that one party has to pay, irrespective of the use or role of the lent money in the hands of the borrower. As this is not the case in Islamic finance, the philosophy, principles and operation of Islamic finance differ to a large extent from the principles and operations of conventional finance. Islamic finance concedes money as a measure of value or a medium of exchange, this concept leads to the necessity of a new pattern of money valuation "Faithful Money".

2. INTEREST AND TIME VALUE OF MONEY

Since the institution of interest, no discussion on a society's duty to its offspring can be isolated from an examination on interest. The questioning of interest on theoretical grounds is not a recent development and since the ancient time, almost all of the philosophers thought about the rationality of interest. Plato regarded interest as a means whereby the rich could exploit the poor, and Aristotle believed that money was to be used in exchange not to increase at interest. (Abbadi, 1984) (AAOIFI, 2010)

Prohibitions on usury appear in all the heavenly books such as Torah, Bible and Quran:

"*If your brother becomes poor, and his ability [to earn a living] is weakened - give him a hand - so that he can live with you. Do not take from him interest; you shall fear your God and let your brother live with you. Do not lend him your money with interest, nor your food shall you lend at an increased price*". [Leviticus 25:35-37]

"*If you advance money to any poor man amongst my people, you are not to act like a money lender; you must not extract interest from him*". [Exodus 22:25]

"*They say: 'buying and selling is but a kind of usury' - while God has made buying and selling lawful and usury unlawful*". [Quran, Al-Baqarah 1:275]

However, many Jews later interpreted the prohibition on usury as applying only to loans made between Jew and Jew, not between Jew and Gentile.

Although all scholars of Islam have always condemned interest, the spread of the interest-based practices in the world economic system has lead, nowadays, to admit that the injunctions against usury from religious quarters are little more than an embarrassing appendage of backwardness. Often, the religious arguments seem unscientific and weak when placed before the articulate economists of the pro-interest camp. (Kettell, 2011)

Therefore, we should be aware of these two of the most common approaches. Of these, the simplest is that which views interest as the price of money. This approach portrays money like an item that can be bought and sold like other goods or services. It should be asked why, if money is indeed sold, how we can buy and purchase this money? Of course, money is not so much sold as lent and interest cannot therefore be the price of money. The money is the same; its material, its form, its composition and its value are equal, because all units of money belonging to the same denomination are fully equal to each other. (A.Alchian, 1950)

The second frequent argument which justify this notion: money "now" as worth more than an equal amount of money "later". Hence, with this statement interest is made to be looked at as a major and positive factor to boost economic activity even if that is to happen in total disregard for the different risks to be incurred in terms of currency rate and inflation.

Monetarism reflects how rational individuals will prefer money now to money later, because we can deal better now with money than later. Because somewhere, we have a market, we have supply and demand which determine the prices of goods and give us the big opportunities for the best deals. It is not the value of money that changes over the time, the money still the money, and as the market prices can increase in the time, it can also fall in the time easily. This rule stills obsolete. (H.Bhattacharya, 2010)(Magazine, 2009) (Soddy, 1936)

These two fundamental arguments try to justify the time value of money which justifies interest, but surely they want to make up the interest limits and ignore the ultimate definition of money that underlines the fact that the money has no quality, except that it is a measure of value or a medium of exchange. (Hansen, 1932) (Shelton, 1994)

3. FIDUCIARY MONEY UNDER CONVENTIONAL SYSTEM

Fiduciary money, another term for state money, is money whose value in exchange for goods and services. In many ways, modern fiat money bears a similarity to an "IOU" (I Owe You). An "IOU" is the amount of virtual wealth which is equal to the wealth that some members of the society have given up in favor of promises by other members to repay at late date. In a modern day goods for cash transaction, the seller receives a similar piece of paper of little or no intrinsic value. The only real distinction to be made is that these pieces of paper are printed under the authority of a central bank and are generally accepted in exchange for goods and services, whilst an "IOU" drawn up by private individual.

Nowhere in the issue of either an "IOU" or state money need an interest charge arise. The material and immaterial wealth (Gold, Silver, Intelligence…) does not bear interest to exist. It does not have to be borrowed in order to exist. It simply exists. Paper money does not bear interest in order to exist. Its existence is not dependent on loan transaction. It simply exists. However, bank money cannot be created other than by loan and therefore almost inevitably bears interest as a condition for its existence. (Patinkin, 1972) (Soddy, 1936)

It is shown that central banks from time to time increase / decrease the policy rate or buy or sell financial instruments on the open market. These so called open market operations are often undertaken not because the state wishes to repay debt or borrow money, but instead because there appears to be too much or too little money in circulation in the economy.

Whatever the course of monetary policy, a serious conflict eventually arises. Bank money supply cannot grow for ever if reserve ratios have a lower limit and the supply of state money remains fixed. The commercial banks ultimately have to increase their reserve ratios, either by calling in loans (destroys money as fast as loans are repaid and thus results a vicious recessionary cycle) or by sourcing new reserves from the state. (Wright, 1996) (Modi, 2007) (Patinkin, 1972)

In consequence, the neoclassical contention holds that money supply is a major determinant of the general price level and affects widely the degree of the inflation in an economy.

So, the purpose of the next section is to build a new pattern of money valuation which reflects the real wealth of the economy not virtual, and is not based on an interest-yielding money supply, but must be based on actual nation wealth. (Keynes, 1973)

4. FAITHFUL MONEY IS THE NEW PROPOSED PATTERN

The monetary policy in any economy has a great impact on the functioning of its financial system through their impact on the quantity and value of money. Experts in Islamic economics concede the advantages of money as a measure of value and a medium of exchange. The holy Prophet "blessings and peace for him" himself favored the use of money in place of exchanging goods with goods. The

prohibition of usury in Islam is a step towards the transition to a money economy and is also a measure directed at making barter transactions rational and free from the elements of injustice and exploitation.

Giving that the ultimate definition of the money is a measure of value and a medium of exchange, the money is considered like the sole tool for measuring the wealth of a person, a company, a state or of the whole world.

So, it is unfair to find, in the world, many contradictions between the value and the quantity of money and the actual wealth. For example, almost all the poor countries (especially African countries) have very important sources of natural wealth such as gold, oil, diamond, human resources…However; their currency has very poor international value due to the currency rate and the interest which are created through the common conventional virtual practices. Their rich people must possess a huge amount of their state money to have an equal level of wealth in developed countries, even if the developed country does not have enough actual wealth like their own countries.

The second dilemma is very common throughout the globe; it is the inability to measure the actual wealth of one country through the actual quantity of money circulating in the place! This issue must be rational once the sole tool, until now, for measuring the actual wealth of individuals and corporations is the quantity of money that is possessed. However, the reality of the current economic system presents many contradictions that are shown especially in the manufacturing of money which is completely linked to the virtual wealth instead of the actual wealth, and in consequence the valuation of the money is still related to the market fluctuation which is dependent of the money supply and loans transaction, instead of the equivalent in term of actual wealth whether natural, industrial, human or others…

This discussion leads to this unresolved question: How can conventional money measure a wealth, while it is not enough wealthy in itself?

Money is created, slowly and naturally, when one commodity becomes used, in barter, as a medium of exchange. The commodity is accepted in trade, not because the acquirer plans to use it, but because he or she expects to be able to trade it again in the future. For example, in ancient China, farm tools became a medium of exchange. As the tools were used more and more for exchange and less and less for farming, they became abstracted and miniaturized.

In fact, nobody invented money. It is as natural as clothing or shelter and has emerged independently all over the world. Certainly governments are not necessary for its creation. All manner of goods have been pressed into service as money: cowry shells, slabs of salt, elaborate beaded belts, giant stone wheels and so forth. Even in modern times, if no better medium is available, people will adopt as money, whatever available commodity which is most suited for the task.

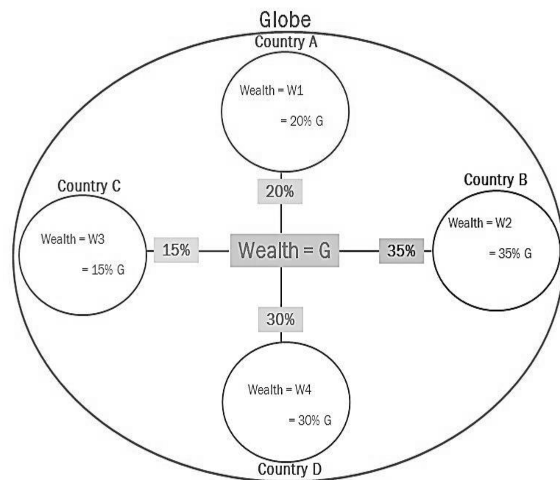
For most of the past three millennia, the world's commercial centers have used one or another variant of gold standard. A gold standard, in any of its many forms, shall be defined as a system that ties the value of money to the value of a fixed quantity of gold.

Indeed, during much of the twentieth century, major government gold holdings have been stored in the basement of the U.S. Federal Reserve. "International gold transfers" consisted of shuffling gold bars around the Federal's basement. These "gold movements" have been blamed in all manner of economic upheaval, oddly enough by people who criticize others for their supposed faith in gold's supernatural powers! It should be one of the best understood of human institutions, but it is not. That is because that the gold or silver is not the ultimate unit of measure of the wealth in the world. (Soddy, 1936) (Patinkin, 1972)

Rationally, the wealth of any nation is formed by a combination of many precious sources such as gold, silver, diamond, oil, phosphate, water, human resources, industry and others.

Therefore, it seems very pertinent to tie the money supply to the actual value of wealth, and result a true currency which reflects the actual image of the wealth; it is the faithful money which is a new pattern of money valuation such as shown in figure 1.

Figure 1. Faithful money pattern



Faithful Money Pattern is the new concept of valuation of money.

The pattern underlines a new concept of valuation of money which is based on actual wealth. In this pattern, the wealth is formed by three fundamental components of P.I.H:

- Precious resources: Gold, Silver, Oil, Diamond, Phosphate…
- Industry power: Plans, Cars…
- Human resources: Labor, Intelligence, study…

So, each nation wealth is composed by different percentages of these three components. In consequence, the globe wealth is formed by these nations' wealth.

For example, according to the pattern: G = W1 + W2 + W3 + W4.

Meanwhile, each country needs its own currency which reflects its wealth; the state is free to build its currency according to its wealth components. The state currency must be composed of a basket of the three components of wealth

(P.I.H), according to the percentage of ownership according to the valuation of each one (from the most precious).

Therefore, the money supply must reflect exactly the amount of the valuation of the nation wealth, and it should be controlled according to the state wealth changes.

Otherwise, each country need to deal with the rest of the globe, it is in the obligation to exchange currencies. In this case each state currency presents a percentage of the globe wealth (e.g. W1 = 20% G), in consequence, the globe currency constitutes the medium of exchange between foreign currencies and reflects the actual globe wealth.

The faithful money pattern aims to evaluate the actual state wealth as well as the globe wealth.

The faithful money tries to keep the monetary system more and more stable with an appropriate money supply according to the state wealth and the globe wealth.

5. CONCLUSION

It believed that the socio-economic problems facing humanity today have emanated from the unbridled creation of fictitious assets, particularly reserve currencies, and the unhindered forces of demand and supply with exploitative tools of "sovereignty" of individuals, "unfettered self-interest" and the "interest"-based corrupt financial system. Human beings could have avoided massive losses to life and property had the creation of fictitious monetary assets not been so easy and rampant. The solution lies in disciplining the creation of money, limiting self-interest with social interest and business ethics, and transforming the corrupt financial system to make it free from exploitation and games of chance, thus enabling mankind to optimally use the resources for benefits on a larger scale.

While Islamic principles of finance have proved their viability worldwide, and individual Islamic financial institutions and giant multinational groups are queuing to exploit the potential benefits, Muslim countries are not yet playing any effective role in the promotion of Islamic finance as a policy objective at the state level.

Having said that, the Islamic banking and finance industry has a large potential ahead in retail, corporate and investment banking and fund management. An inspiring performance so far and the huge potential ahead, combined with the resolution of issues which could boost the growth momentum of the Islamic finance industry, gives rise to a number of challenges. The future relies on the policymakers and the practitioners and how they face the challenges.

Indeed, the prospects for Islamic banking and finance are bright but the task ahead is challenging.

Therefore, in the absence of interest, the economic engine will be healthier in term of solvency and profitability. Furthermore, the economic efforts would be directed away from wealth transfer and towards wealth creation. The entrepreneur would share his profit with the financer according to mutual good fortune, not an arbitrary rate of interest. This is the purpose of the new concept of money valuation "Faithful Money" which is based on Islamic banking beliefs and it promotes the creation of money from an actual wealth not from fictitious assets.

The new Faithful money concept provides a solid basis for these reformatory measures, and debunk the limits of the current conventional theory of wealth creation, except of scientific evidences, by the simple unresolved question: How can conventional money measure a wealth, while it is not enough wealthy in itself?

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COMMODITY RISK MANAGEMENT

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The author would like to note that the ideas in this article were jointly developed with Joseph Eagleeye, co-founder of Premia Research LLC

Abstract

This article discusses the practical issues involved in applying a disciplined risk management methodology to commodity futures trading. Accordingly, the paper shows how to apply methodologies derived from both conventional asset management and hedge fund management to futures trading. The article also discusses some of the risk management issues that are unique to leveraged futures trading.

Keywords: Futures Trading, Risk Management, Commodity

1. INTRODUCTION

Commodity futures trading is such a niche discipline that discovering how to succeed using disciplined risk-management principles usually only occurs through hard-won experience. This article provides an alternative approach: one can instead study a logical structural framework, as set forth in this article.

In covering the topic of commodity risk management, this practitioner-oriented paper proceeds as follows. A number of trading strategies exist because the trader is being paid to bear risk: that is why they can continue to exist, even if well-known. But then in order for a trading program to be viable in the long-term, a trader must implement disciplined risk management procedures. The key parameters for a risk-management program include quantifying a client's risk tolerance and attempting to ensure that one does not exceed that tolerance as well as understanding the price behavior of commodity futures prices and their potential for explosive behavior. Both of these parameters are essential for the choice of leverage level and hedging strategy for a trading program. Next the paper covers two types of useful risk metrics for a trading program, which include Value-at-Risk and historical worst-case measures. The article then discusses how to avoid inadvertent concentration risk, namely by understanding the fundamental drivers of a strategy. The paper also advocates the use of (a) out-of-the-money options to hedge against identifiable extreme scenarios and (b) disciplined exit strategies for when trading strategies exceed worst-case outcomes. Finally, the paper enumerates what should be included in a trading program's risk-management reports.

2. RISK IS THE FLIPSIDE OF RETURN

In a number of derivatives trading strategies, an investor is paid to bear risks that others would prefer to lay off or not take on. What John Maynard Keynes (1935) wrote is just as true today: "The violence of the fluctuations which normally affect the prices of many individual commodities shows what a great risk the short-period speculator in commodities runs, for which he requires to be remunerated on a corresponding scale."

A number of derivatives trading strategies are well known and publicized, which does not prevent them from continuing to exist. For example, trades that have appeared in 1980's commodity brokerage recommendations and have been published in the *Journal of Futures Markets* and other empirically oriented journals are still valid in some form today.

In discussing consistently profitable grain futures trades, Cootner (1967) stated that the fact that they "persist in the face of such knowledge indicates that the risks involved in taking advantage of them outweigh the gain involved. This is further evidence that … [commercial participants do] not act on the basis of expected values; that … [these participants are] willing to pay premiums to avoid risk."

In a number of statistically significant futures trades, the investor who implements these trades assumes some specific event risk that others do not want to assume, which is why there is a return to efficiently bearing this risk in the first place.

3. THE MOST IMPORTANT ELEMENT OF AN INVESTMENT PROCESS

The key to a successful investment program is not in discovering proprietary investment strategies: a diligent literature search will turn up a great number of strategies, as noted above.

Instead, the most important element of an investment process may well be how one implements the program's portfolio construction and risk management methodologies so that one can have both smooth performance and stay in business during dramatic market moves. This point will be further elaborated on below.

4. PRODUCT DESIGN ISSUES

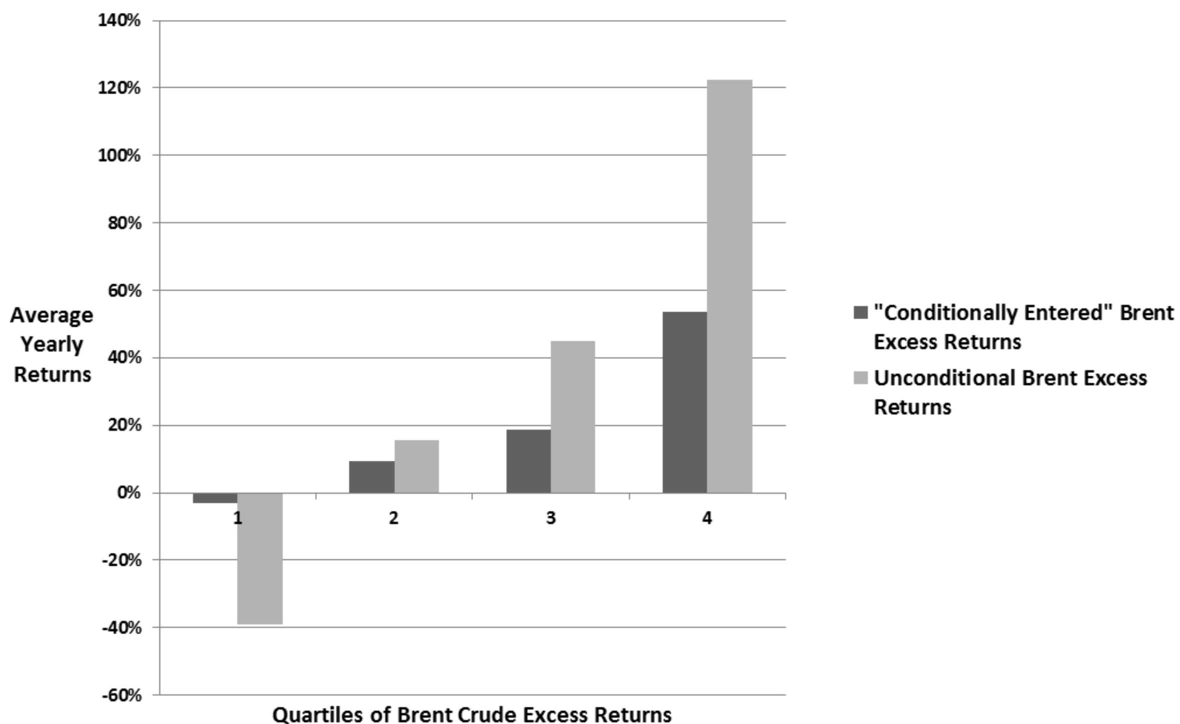
In derivatives trading, one has a lot of flexibility in designing an investment program. Futures trading requires a relatively small amount of margin. For example in some futures programs, one only needs

to set aside about $7 for each $100 of exposure. The result is that one can easily adjust one's leverage level to magnify gains (and of course, magnify losses, too.) Trade sizing is mainly a matter of how much risk one wants to assume. An investor is not very constrained by the amount of initial capital committed to trading. With the use of options, one can also be very particular about the risks that the investor wishes to hedge away by paying option premia.

What leverage level is chosen for a program and which risks are hedged are product design issues. One needs to determine: "How will the program be marketed, and what will the client's expectations be?" A number of top Commodity Trading Advisors (CTA's) have had losses in excess of –30%, which seem to have been acceptable to their clients since these investment programs sometimes produce 100%+ annual returns. Investors know upfront the sort of swings in profits and losses to expect from such managers.

Further, investors in futures programs frequently expect a long-options-like payoff profile from such trading programs. Figure 1 provides an example of a crude oil futures trading strategy that, at least historically, has the desired long-options-like payoff profile (the "conditionally entered" Brent futures strategy) while passively investing in Brent oil futures contracts does not (the "unconditionally entered" Brent futures strategy.)

Figure 1. "Conditionally Entered" vs. "Unconditionally Entered"
Brent Crude Oil Futures (Excess) Returns (End-January 1999 through End-December 2014)



Note: The calculations underlying this chart were performed by Joseph Eagleeye, Premia Research LLC
Source: Till (2015), Slide 37

CTA investors also frequently expect futures trading programs to be equity diversifiers, so clients thereby expect that a trading program will not do too poorly in the face of a large equity decline.

The parameters of a program's risk management policy should directly flow from the return, risk, and correlation expectations of the program's client base. When attempting to adhere to these top-level parameters, the actual implementation of a program's risk management policy will rely heavily on the particular assumptions about the statistical properties of futures prices, as will be discussed later.

5. VIABILITY OF A FUTURES PROGRAM

As noted earlier, a number of statistically significant trading opportunities exist because of the possibility of rare, but nonetheless large, losses. One can build a business or investment program around these positive expected value opportunities, but the particular leverage level and hedging strategy chosen determines the ongoing viability of the program. For example, the basic strategies employed by the following institutions were backed by historical experience:

- The U.S. savings and loan industry's strategy in the 1980's in exploiting a persistently steep yield curve had been historically valid;
- Metallgesellschaft's strategy in 1993 in exploiting the persistently backwardated shape of several energy futures contracts had also been historically profitable;
- Long Term Capital Management's strategy in 1998 in profiting from convergence trades in the fixed-income markets was statistically appropriate;
- Amaranth Advisors LLC's strategy in 2006 of being positioned for extreme weather events had historically provided a long-options-like payoff

profile for investors in its natural gas futures program.

All the above strategies are statistically valid, but, nonetheless, resulted in billions of dollars of losses. Obviously, the leverage level and hedging strategies chosen by these institutions, in retrospect, were flawed.

6. STANDARD RISK MANAGEMENT METHODOLOGY

The way that risk management is applied at conventional asset managers is typically as follows:

- Translate the client's guidelines into return and risk targets with respect to an index or benchmark;
- Determine the active bets away from a program's benchmark;
- Make assumptions about the expected returns, volatility, and correlation of the active bets;
- Construct the client's portfolio so that the client's return and risk targets will be achieved if one's statistical assumptions are correct;
- Continually monitor the portfolio's actual return and risk performance for adherence to the established targets.

Litterman (1996) noted that "[t]he art of successful portfolio management is not only to be able to identify opportunities, but also to balance them against the risks that they create in the context of the overall portfolio." Risk management is therefore designed into the investment process. The conventional asset manager approach to risk management is a useful first step in designing a risk management program for leveraged futures trading. As will be discussed, one still needs to add several layers of risk management to this approach because of the unique statistical properties of commodity futures contracts and because of the different way futures products are marketed.

A futures product typically does not have a benchmark so the conventional asset manager approach of translating a client's guidelines into risk and return targets with respect to an index does not directly apply. Instead, one needs to determine what the acceptable total-return-to-total-risk trade-off is for a client. Given the ability to leverage, a number of CTA's offer 1-times, 2-times, and 3-times versions of the same program. In other words, a client can directly choose the leverage level for their investment based on their ability to tolerate losses of a given magnitude.

The second step in a conventional asset manager approach to risk management consists of making assumptions about expected returns, risks, and correlations of active bets. It is at this point that the unique behavior of commodity prices creates extra steps in a risk management program.

7. UNDERSTANDING PRICE BEHAVIOR

Research from the 1970's showed that diversified portfolios of equities have returns that appear to be symmetrically distributed. It is a different matter for commodity prices.

Deaton and Laroque (1992) noted the following about the empirical behavior of the prices of a number of commodities:

- "Commodity prices are *extremely* volatile;"
- There exist "rare but violent explosions in prices;"
- In normal times, there is a "high degree of price autocorrelation;"
- "In spite of volatility, prices tend to revert to their mean or to a … trend" level;
- "There is substantial positive skewness" in the price distributions;
- There is "substantial kurtosis with tails much thicker than those of the normal distribution."

Commodity prices tend to exhibit positive skewness for the following reason. During times of ample supplies, there are two variables that can adjust to equilibrate supply and demand: more inventories can be held *and* the price can decrease. But, if there are inadequate inventories, *only* the price can respond to equilibrate supply and demand, given that in the short run, new supplies of physical commodities cannot be instantly mined, grown, and/or drilled.

7.1. Value-at-Risk

If a portfolio of instruments is normally distributed, one can come up with the 95% confidence interval for the portfolio's change in monthly value by multiplying the portfolio's recent monthly volatility by two (or 1.96, to be exact.) The portfolio's volatility is calculated from the recent volatilities and correlations of the portfolio's instruments. This is the standard Value-at-Risk approach. Now, this approach alone is obviously inadequate for a commodity portfolio, which consists of instruments that have a tendency towards extreme positive skewness.

While this measure is useful, it has to be used jointly with other measures and actions. The measure is useful since one wants to ensure that under normal conditions, a commodity position has not been sized too large that one cannot sustain the random fluctuations in profits and losses that would be expected to occur, even without a dramatic event occurring. Sizing a trade based on its volatility is especially important the longer the frequency of predictability is. For example, if a trade's predictability is at quarterly intervals, the trade has to be sized to withstand the daily fluctuations in profits and losses.

In one extreme example, Lettau and Ludvigson (2001) have found that equities are predictable at business cycle frequencies. But that means that one cannot have a leveraged investment process to take advantage of this predictability.

7.2. Scenario testing

Using long-term data, an investor should directly examine the worst performance of a commodity strategy under similar circumstances in the past. In practice, such a measure will sometimes be larger than a Value-at-Risk measure based on recent volatility.

One should examine the worst performance of a futures trade over the entire time horizon of the trade rather than looking at what its worst performance was over a period of say, three days. Markets are "learning systems." During a price shock, if a similar event occurred in the past, market participants know what the magnitude of the price

move was during the past event. So an entire, dramatic price move may occur in a shortened timeframe as compared to the past.

In practice, if a market only has limited historical data, it would be prudent to scale down the size of a position in such a market since one may not be able to get a complete idea of the range of possible outcomes.

If one is relying on historical data to find pockets of predictability in the futures markets, then examining worst-case outcomes can also serve another purpose. If the loss on a particular commodity futures strategy exceeds the historical worst case, this can be an indication of a new regime that is not reflected in the data. This would trigger an exit from a systematic trade since one no longer has a handle on the worst-case scenario.

An example of a fundamental structural change occurring in a commodity market was provided by Fusaro (2005). He reveals that in the summer of 2005, "the big Wall Street houses and some other hedge funds lost many … hundreds of millions [of dollars] on gasoline/heating oil spreads. They could not imagine that heating oil would go higher than gasoline in June. It just never happened before."

The conclusion from this discussion is that a commodity program will not experience the full brunt of a structural break if one exits a trading strategy after experiencing losses that are greater than have been the case in the past, as noted in Till (2006).

7.3. Deep out-of-the-money options

In a systematic investment program based on historical data, one can make determinations about the expected return of an investment. One result is that an investor can decide to give up a small fraction of this expected return in order to hedge against catastrophic risk. An investor can do so with deep out-of-the-money options.

This choice is especially advisable for commodity futures positions that require physical delivery at maturity. This means that contracts can be periodically squeezed to quite unpredictably high levels.

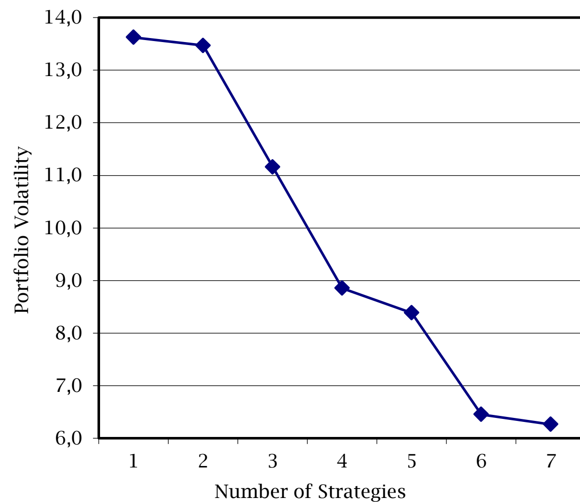
7.4. Exit strategy

Although strictly speaking not a risk management issue, one should employ an exit strategy that recognizes the mean-reverting properties of commodities. This means examining historical data to determine the typical size of moves during supply/demand imbalances.

7.5. Diversification and concentration risk

As discussed in Till (2001), a commodity investment manager can potentially set up dampened risk portfolios of commodity investments, which are very nearly uncorrelated with each other. For example, Figure 2 shows the annualized portfolio volatility versus the number of commodity strategies for a portfolio from June of 2000. Based on three months of price data, these strategies had correlations amongst each other of between -20% and +20%. The figure demonstrates the beneficial effect of incrementally adding unrelated trades on portfolio volatility.

Figure 2. Portfolio Volatility vs. Number of Strategies



Note: Copyright © Institutional Investor, Inc.
Source: Till (2000), Figure 5

Now for all types of leveraged investing, a key risk management concern is inadvertent concentration risk. So for example, equity option market-makers will try to ensure that their book of trades does not have inadvertent style and industry concentrations.

In leveraged commodity futures investing, one must be careful with commodity correlation properties. Humphreys and Shimko (1997) discuss how correlations amongst commodity markets can be highly seasonal. Their specific example discusses the correlation of natural gas in different regions, which depends on whether it is summer or winter.

In addition, seemingly unrelated commodity markets can become temporarily highly correlated. This becomes a problem if commodity managers are designing their portfolios so that only a certain amount of risk is allocated per strategy. The portfolio manager may be inadvertently doubling up on risk if two strategies are unexpectedly correlated.

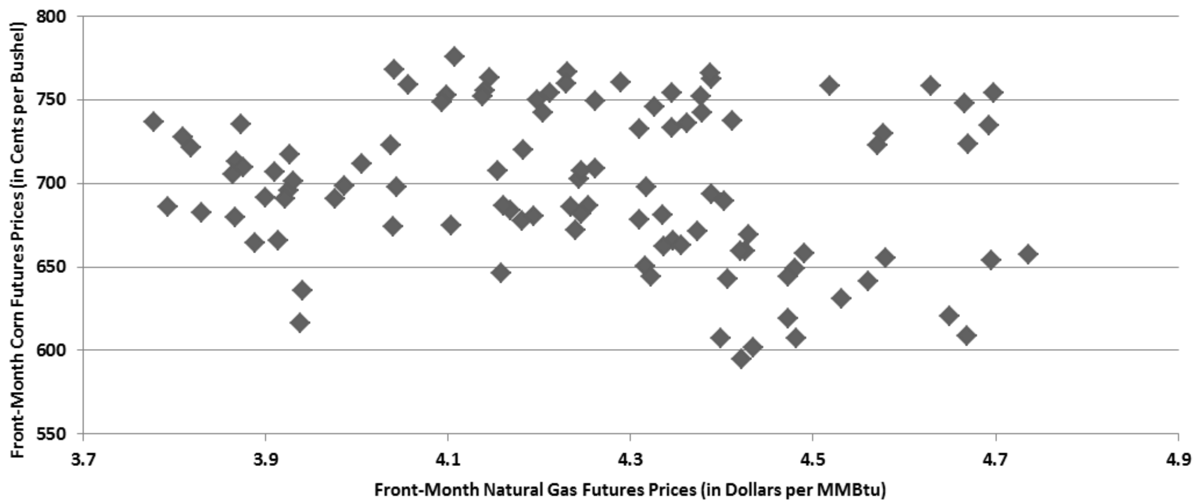
7.6. Understanding the fundamental drivers of a strategy

The antidote for this problem is two-fold. One is to understand what the key factors are which drive a strategy's performance, and the other is to use short-term recent data in calculating correlations. If two trades have common drivers, then it can be assumed that their respective performances will be similar. Recent data can frequently capture the time-varying nature of correlations that long-term data average out.

7.6.1. Corn and natural gas example

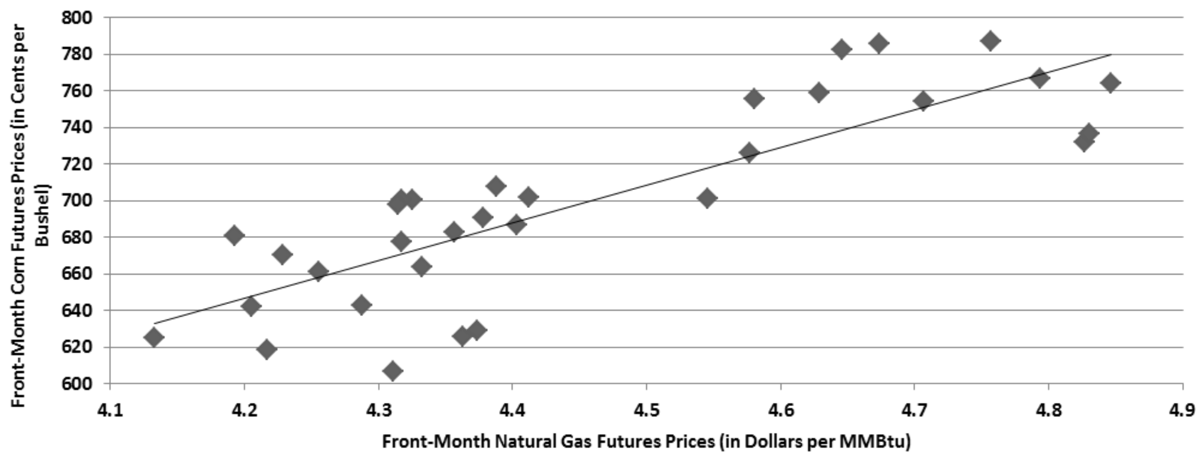
The following graphs in Figures 3 and 4 provide an example from 2011 that show how seemingly unrelated markets can become temporarily very related.

Figure 3. Front-Month Corn Futures Prices versus Front-Month Natural Gas Futures Prices (1/3/11 to 6/1/11)



Source: The Bloomberg

Figure 4. Front-Month Corn Futures Prices versus Front-Month Natural Gas Futures Prices (6/1/11 to 7/15/11)



Source: The Bloomberg

Normally, natural gas and corn prices are unrelated. But during the summer, they can become highly correlated, as shown in Figure 4. Depending on the values of key fundamental drivers, two prospective trades in the summer are to be short these two commodities. Now, the empirical evidence seems to show that these two trades may be the same trade. So, if one puts both of these trades in their portfolio, one would be inadvertently doubling up on risk. How could these two seemingly different trades be, in fact, the same trade?

To answer this question, one needs to understand why these two trades tend to work. These two trades are part of a class of trades called, "Weather Fear Premium" trades. In this class of trades, as explained in Di Tomasso and Till (2000): "A futures price will sometimes embed a fear premium due to upcoming, meaningful weather events. One cannot predict the weather, but one can predict how people will systematically respond to upcoming weather uncertainty. In this class of trades, a futures price is systematically too high, reflecting the uncertainty of an upcoming weather event. We say the price is too high when an analysis of historical data shows that one can make statistically significant profits from being short the commodity futures contract during the relevant time period. And further that the systematic profits from the strategy are sufficiently high that they compensate for the infrequent large losses that occur when the feared, extreme weather event does in fact occur."

Till (2000) gave several examples of this strategy, including ones from the corn and natural gas markets, as discussed below.

7.6.2. Corn

"Its key pollination period is about the middle of July. If there is adverse weather during this time, new-crop corn yields will be adversely affected. This means that the new-crop supply would be substantially lessened, dramatically increasing prices. A systematic trade is to short corn futures from June through July. There is systematically too high a premium embedded in corn futures contracts during the pre-pollination time period."

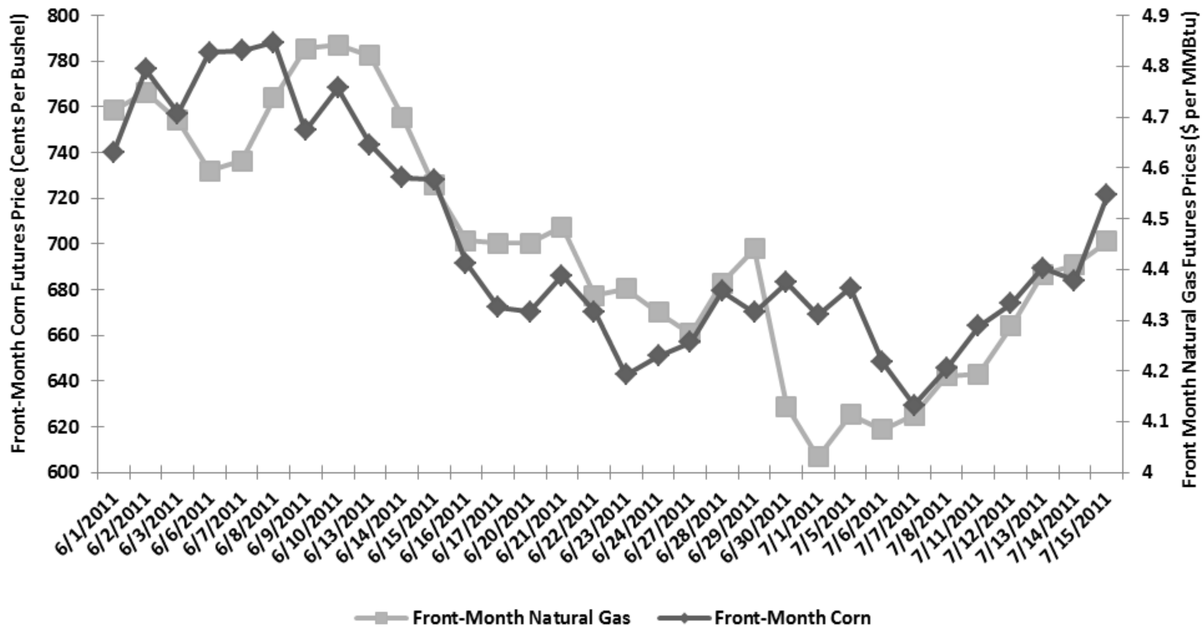
7.6.3. Natural gas

"In July, there is fear of adverse hot weather in the US Northeast and Midwest. Air conditioning demand

can skyrocket then. From June to mid-July, a systematic trade is to short natural gas futures contracts at the height of a potential weather scare."

Both the July corn and natural gas trades are therefore heavily dependent on the outcome of weather in the U.S. Midwest. Figure 5 further illustrates how both corn and natural gas had common reactions to the possibility of extreme heat in 2011: their prices frequently waxed and waned at similar times during the summer, as would be expected from the discussion above.

Figure 5. Front-Month Corn Futures Prices and Front-Month Natural Gas Futures Prices (6/1/11 to 7/15/11)



Source: The Bloomberg

Our conclusion is that in order to avoid inadvertent correlations, it is not enough to measure historical correlations. Instead, an investor needs to have an economic understanding for why a trade works in order to best be able to appreciate whether an additional trade will act as a portfolio diversifier.

7.7. Extraordinary stress testing

As discussed above, risk management policies flow from product design decisions. Futures products are typically marketed as equity investment diversifiers. Therefore, one job of risk management is to attempt to ensure that a futures investment will not be correlated to the equity market during periods of dramatic equity losses. This is not an issue for say, an equity mutual fund. During a time of stress in the equity markets, clients would expect that their equity fund would perform poorly.

This extra risk management step is unique to alternative investments, again, because of the way they are marketed. For example, funds of hedge funds are also marketed as equity diversifiers, so this is also a particular area of concern for such funds. Since fund of funds typically include a lot of arbitrage strategies, which in turn rely on the ability to leverage, fund of funds are at risk to liquidity shocks. And the equity markets typically also do poorly during liquidity shocks.

One potential solution is to include an interest-rate overlay in such funds. The interest-rate overlay consists of going long Eurodollar (short-term U.S. interest rate) futures, which do well when short-term interest rates are cut. The Federal Reserve Board's (Fed's) response to liquidity shocks has typically been to cut short-term interest rates so a Eurodollar overlay could plausibly offset losses in portfolios consisting of arbitrage strategies.

This type of macro hedging is very applicable to commodity and financial futures investments as well. A number of commodity futures strategies have a long commodity bias since they rely on taking on inventory risk that commercial participants wish to lay off. One consequence is that these strategies are at risk to sharp shocks to business confidence. And during sharp shocks to business confidence as occurred in the aftermath of September 11th 2001, the stock market performs quite poorly.

A number of financial futures strategies involve taking long positions in relatively illiquid markets and taking short positions in liquid markets during predictable times of increases in market liquidity. One consequence is that these strategies are at risk to liquidity shocks as occurred in the fall of 1998 during the LTCM/Russian default crisis.

As noted before, the Fed has responded to financial shocks by cutting interest rates, which has resulted in the stock market stabilizing. As long as this type of policy continues, one way to hedge a portfolio that has exposure to shocks to business confidence or shocks to the availability of credit is to include a fixed- income hedge. The hedge could take the form of either a Eurodollar futures contract overlay or purchases of out-of-the-money fixed-income calls.

Obviously one would prefer to layer on natural hedges, which themselves have positive expected value. This is sometimes possible in a diversified

futures program. For example, in the fall there tends to be a number of statistically significant commodity trades that have a long bias. Also, at the same time there are a number of statistically significant long fixed income trades. By carefully combining these trades, the fixed-income trades operate as a natural hedge to the event risk taken on with the long commodity trades.

The hedge fund world also provides other risk management solutions that are applicable to futures programs. One concern for a fund-of-funds is that its group of funds is inadvertently exposed to some event risk like an emerging markets shock. This issue is compounded by the fact that a hedge fund investor is frequently not allowed to see what a hedge fund is investing in because this is considered proprietary information by a hedge fund.

One risk management software provider has solved this problem by confidentially collecting hedge fund portfolios and directly determining their sensitivity to past financial shocks. For example, if one held a particular fund-of-funds portfolio during October 1987, one could see how that portfolio would have performed during the stock market crash. This scenario test gives an indication of sensitivity to a stock market crash.

For a commodity and financial futures portfolio, it is prudent to examine how the portfolio would have performed during various well-defined stock market declines, given that such investments are marketed as equity portfolio diversifiers. Also, various crises have shown that the only thing that goes up during such times is correlation! If a portfolio shows sensitivity to certain extreme events when the stock market has declined, this does not necessarily mean that the portfolio should be sized differently or constructed differently. It may mean that a macro portfolio hedge would be in order such as purchasing out-of-the-money Eurodollar call options, as noted above.

8. RISK MANAGEMENT REPORTS

On a per-strategy basis, it is useful to examine each strategy's:

• Value-at-Risk based on recent volatilities and correlations;

• Worst-case loss during normal times;

• Worst-case loss during well-defined eventful periods;

• Incremental contribution to Portfolio Value-at-Risk;

• Incremental contribution to Worst-Case Portfolio Event Risk.

The latter two measures give an indication if the strategy is a risk reducer or risk enhancer.

On a portfolio-wide basis, it is useful to examine the portfolio's:

• Value-at-Risk based on recent volatilities and correlations;

• Worst-case loss during normal times;

• Worst-case loss during well-defined eventful periods.

Each measure should be compared to some limit, which has been determined based on the design of the futures product. So for example, if clients expect the program to lose no more than say 7% from peak-to-trough, then the three portfolio measures should be constrained to not exceed 7%. If the product should not perform too poorly during financial shocks, then the worst-case loss during well-defined eventful periods should be constrained to a relatively small number. If that worst-case loss exceeds the limit, then one can devise macro portfolio hedges accordingly.

Now obviously the danger with these recommended approaches is that one is relying on historical data for guidance since completely unprecedented events do happen. That is why one should exit any futures trades in which the losses exceed those known in history since one is then in uncharted territory.

9. CONCLUSION

There are a number of derivatives strategies, which earn returns due to assuming risk positions in a risk-adverse financial world. The returns are not necessarily due to inefficiencies in the marketplace.

There is a very important active component to a futures program that earns a return due to bearing risk. It is the investment program's risk management methodology and policy. An investment manager must decide how much to leverage the strategy and whether to give up any returns by hedging out some strategy's extreme risks. That manager must also continually monitor the risk exposures in his or her portfolio and make sure that those exposures adhere to pre-defined limits.

In designing a risk management framework, a leveraged futures trader can use as a starting point the framework provided by conventional asset managers and also by fund of hedge fund managers.

We conclude by noting that how investors design and carry out their risk management policies is key to an investment program's viability, especially in leveraged commodity futures trading.

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THE DYNAMICS OF DEFLATION IN A GROWING ECONOMY

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Abstract

In this paper I study the behavior of prices in a growing economy in which the money supply is held constant. I show that with increasing levels of output, it is a natural outcome that prices of economic goods will decrease over time, which it is what we define as deflation. In this context, I study in particular the behavior of real and nominal incomes (wages and profits) over time, the evolution of nominal and real GDP and the effects of deflation on debt contracts. Specifically, I assess the common claims that deflation decreases incomes, postpone spending and favors creditors at the expense of debtors. I have found that none of these claims is supported by theoretical analysis in the case that price deflation is the consequence of economic growth with constant money supply.

Keywords: Deflation, Growing Economy, Money Supply

1. INTRODUCTION

Deflation is taken frequently to be an evil. Most central banks have a mandate to keep a positive growth rate of prices and avoid by all means that the general price level in (usually measured by the Consumer Price Index) the economy goes through a downward path. This fear of deflation, or *Apoplithorismosphobia,* as termed by Mark Thornton (2002) is a generalized phenomenon and pervades also the media news. We rarely see, though, a distinction being made between the various kinds of deflation. Sometimes we read that there is "good deflation" and "bad deflation" – the first being the consequence of decreasing costs of production and the latter being due to a decrease in aggregate demand.

Yet, a distinction between the various types of deflation is crucial in assessing the deflation's impact. According to Bagus (2015, pp. 35-83) we can identify at least four main causes of price deflation: growth deflation; cash-building deflation; bank credit deflation (also known as debt-deflation) and fiat deflation (directly caused by the government through interference with prices or the money supply). This need to identify the concrete cause of price deflation is all the more necessary as the term "deflation" in its traditional sense became to denote a decrease in prices rather than a decrease in the money supply. As Mises (1945) cap. 6, sec. 3) already noted, writing about the meaning of the term inflation: "The semantic revolution which is one of the characteristic features of our day has obscured and confused this fact. *The term inflation is used with a new connotation.* What people today call inflation is not inflation, i.e., the increase in the quantity of money and money substitutes, but the general rise in commodity prices and wage rates which is the inevitable consequence of inflation. This semantic innovation is by no means harmless. First of all there is no longer any term available to signify what inflation used to signify." So, it makes all the difference if deflation is caused by a decrease in money supply or by a decrease in the average cost of production.

In particular, falling prices due to an increase in productivity represent a normal process in the economy which signalizes a greater abundance of goods and services available. The contribution of this article is to set out in precise terms the dynamics of the economy when the money supply is kept constant and, at the same time, the economy is growing over time. We shall see that in this case, the natural outcome is a gradual decrease in prices over time and a constant level of nominal incomes (wages and profits). This last point is critical because there is a widespread understanding in the general press and media that wages and profits also decrease along with prices in a scenario of deflation. But this would only be the case if the money supply were decreasing. When that supply is constant the tendency is for nominal incomes to stay constant. Therefore, it follows that in this context, real wages and profits rise over time. I have also addressed the issue of whether the real burden of debt increases in this particular case of growth-deflation and found that it does not.

Concerning empirical studies a good summary is given by Atkeson and Kehoe (2004) in the following words: «The data suggest that deflation is not closely related to depression. A broad historical look finds many more periods of deflation with reasonable growth than with depression and many more periods of depression with inflation than with deflation. Overall, the data show virtually no link between deflation and depression.» That is, even allowing for the several kinds of deflation indicated above the data does not support a casual link between deflation and recessions.[1]

[1] The same conclusion can be seen, for example, in Bordo and Reddish (2004), Capie and Wood (2004) or Friedman and Schwartz (1982, esp. Table 4.9). A good review on some of the classical economists' views on deflation is Humphrey (2004),

Now for the rest of this paper, in section 2, I present and solve the formal model of the economy which will be the framework upon which we are going to be able to draw qualitative results about the behavior of capital accumulation, output, prices and incomes. In sections 3, 4 and 5 I discuss some modifications that might be made to the base model and discuss some possible counter-arguments that could be directed against my main conclusion. In particular, in section 3, I address (and hopefully rebut) the alleged argument of deferral of consumption as a case against price deflation. In section 6, I discuss, at the firm level, the reason why price deflation is a natural and smooth outcome in an economy with growth and constant money supply. Finally, section 7 concludes.

2. THE MODEL

The conceptual framework which I use to describe a growing closed economy is the Solow growth model with an increasing returns to scale production function know in the literature as AK (see Acemoglu (2009), pp. 55-56). I am not interested in studying here the sources of economic growth but merely how monetary and real prices behave in a growing economy, so that the above formulation is satisfactory for this purpose and there's no need to enter in optimizing models. Like Tobin (1955), although in a different way, I then proceed to incorporate money in the basic Solow framework.[2] The way I structure the agents in the economy and their behavior follows Reisman (1998). It will be seen that my model is an exact replica of Reisman's model which he presents only with numerical examples. In this sense, I just build a mathematical formal model that generates exactly the same numerical results than Reisman's. This mathematical model, therefore, should be complemented with the reading of Reisman (1998, esp. pp. 623-29, 709-714, 728-735).[3] Following Reisman, I divide the agents in the economy in three components: Firms, Workers, and Capitalists (which we might call investors or savers). I will later show, in section 4, that this does not imply that in the model workers don´t save or capitalist don´t "work". It is just a functional division (and not a personal division) that facilitates the tractability of the model.

Capitalists invest part of their money directly in firms, being this money the capital equity of these firms, which in turn is spent to buy factors of production – labor, *L*, and physical capital, *K*. The other part of that money is spent by capitalists in consumption, *NC* (net consumption). At the beginning of each time-period firms pay wages, *W*, invest in physical capital and distribute dividends coming from last year's profit. Those wages and dividends are used to buy the output, *Y*, of firms that consists of consumption goods, *C*. Firms sell the output, *C* as well as *K*, that was produced during the previous period, receiving, thus, the total amount of money in the economy, *M*. In terms of firms' cash-flows we have the following situation, in which the variables D_C and D_K denotes money spent in consumption and capital goods, respectively:

Table 1. Cash flows

D_K	D_K
W	D_C
NC	

The sum in each column of the table equals *M*. In each period, capitalists can increase their savings by choosing to consume less and invest part of the dividends. This investment can be made in the form of increased spending in capital goods or in wages. As in Reisman, I assume that this investment is made exclusively in capital goods so that labor is constant (I normalize Labor, *L*, to one). Following the traditional assumption of the neo-classical growth model we assume that a given fraction of total spending, *s*, is spent in capital goods, so that, as usual, the growth equation for physical capital is given by

$$K_{t+1} = K_t\left(1-\delta\right) + sY_t \tag{1}$$

Where δ represents the rate of depreciation of *K* and Y_t is total output, as given by

$$Y_t = AK_t \tag{2}$$

Substituting equation (2) in (1) and dividing by K_t we get:

$$\frac{K_{t+1}}{K_t} = \left(1-\delta\right) + sA \tag{3}$$

From the above equation, in order to obtain a positive rate of growth in capital and output the following condition for parameters' values must be assumed:

$$sA - \delta > 0 \tag{4}$$

Reisman assumes initially $\delta = 1, s = 0.5, A = 2$. As this implies a stationary economy with no economic growth, later he assumes $s = 0.6$. He further assumes $M = 1000$.

Now we study the evolution of the price level, P_t.

At a given period a definite amount of money, *M*, is spent in the output produced in the previous period, in the form of consumption or investment, so that

$$P_t Y_{t-1} = M_t = D_K + D_C. \tag{5}$$

So,

$$P_t = \frac{M}{Y_{t-1}} \tag{6}$$

Solving equation (3) for K_t and substituting equation (2) in (6) we obtain:

$$P_t = \frac{M}{AK_0\left(1+sA-\delta\right)^{t-1}}, \text{ t} \geq 1 \tag{7}$$

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although focusing essentialy on money deflation and not on growth deflation.

[2] See also Solow (2004).

[3] This book is freely available for download at www.capitalism.net. Reisman discusses the specific topic of deflation in Reisman (2000).

According to equations (4) and (7) output grows over time and therefore the price level decreases correspondingly. The logic behind this result follows pretty forward by just assuming flexible prices, a constant amount of money and growing output. In fact it is similar to the classical equation of exchange as expounded for instance in Fisher (1922, p. 48) by assuming a constant rate of velocity of money. In this model the rate of deflation is given by

$$\frac{P_{t+1}}{P_t}-1=\frac{\frac{M}{Y_t}}{\frac{M}{Y_{t-1}}}-1 \quad (8)$$

Observing that

$$Y_t = AK_t = AK_0\left(1+sA-\delta\right)^t,\ t\geq1 \quad (9)$$

and using equation (6) in expression (8), the rate of variation of the price level is:

$$\frac{P_{t+1}}{P_t}-1=\frac{1}{1+sA-\delta}-1 \quad (10)$$

which is clearly negative, given assumption (4), so that we have a decrease over time of the price level, that is, a constant rate of price deflation.

As gross nominal output (GDP), in an income perspective, is equal to wages plus profits plus depreciation and by equation (6) this nominal output is equal to M, we must only prove that in this scenario of growing real output, nominal depreciation of physical capital is constant for a given set of parameters satisfying condition (4). Then I will find the steady-state levels of nominal wages and nominal profits and, provided these have positive values, it follows that, with decreasing P_t, a progressive rise in real wages and profits over time must ensue.

So, I now demonstrate that nominal depreciation of physical capital is constant over time. Note that at a given time-period depreciation equals $\delta P_{t-1}K_{t-1}$. By equations (3) and (7),

$$\delta P_{t-1}K_{t-1}=\delta\left[\frac{M}{AK_0\left(1+sA-\delta\right)^{t-2}}K_0\left(1+sA-\delta\right)^{t-1}\right] \quad (11)$$

Simplifying that expression:

$$\delta P_{t-1}K_{t-1}=\delta\frac{1+sA-\delta}{A}M \quad (12)$$

It is convenient now to make the following notation:

$$x=\frac{1+sA-\delta}{A} \quad (13)$$

So that equation (12) is rewritten as:

$$Depr=\delta P_{t-1}K_{t-1}=\delta xM \quad (14)$$

So nominal depreciation is indeed constant and the result is that GDP is constant over time implying also that a constant level of nominal wages and profits mean a progressive rise of their real values.

I know show what are precisely the values of nominal wages and profits and the consequent value of GDP.

Accounting profit, π, equals sales minus costs of production. As we assume that production in t-1 is sold in t,

$$\pi_t = D_{K_t}+D_{C_t}-\left(W_{t-1}-\delta xM\right) \quad (15)$$

I show in the *appendix* that the steady-state levels of nominal wages and profits equal:

$$W=M\left(1-\gamma-s\right) \quad (16)$$

$$\pi=M\left(\gamma+s-\delta x\right) \quad (17)$$

In these equations above Υ is a measure of intertemporal preference in consumption. Please see the appendix below. I also show in the appendix that, if we don't assume hoarding of money, GDP just equals M.

I now address the question of whether there is a real impact on *creditors or debtors* due to this scenario of deflation.

We must first notice that, as in the case of positive inflation, the nominal interest rate can be adjusted to take account of the expected rate of deflation, as is illustrated by Fisher's formula (1907, chs. V and XIV), $\left(1+i\right)=(1+r)(1+\dot{P})$, where i is the nominal interest rate, r is the real interest rate and $\dot{P}$ is the expected rate of inflation. But, with a constant level of money, even a rate of deflation greater than expected does not harm the debtor as long as he earns some form of income, wages or profits. This is because, as I will presently show, an increase in the rate of deflation is synonymous with an equal increase in the rate of real incomes (profits and wages).

First, as shown in the appendix (see equation (A.11)), for a given set of parameters, the nominal rate of profit is constant and positive. Also, assuming a perfect foresight equilibrium, the interest rate is equal to the profit rate and it follows from the Fisher equation that:

$$(1+r)=\frac{\left(1+i\right)}{1+\dot{P}}.$$

So, a negative rate of inflation (deflation) makes the real interest rate rise as the nominal interest rate is positive and constant (for a given set of parameters); the higher the deflation rate is the higher is the real interest rate. That is to say that the real burden of debt increases proportionally to the rate of deflation.

But, then we could see that real incomes (profits and wages), out of which agents should pay the debt, grow exactly in the same inverse proportion as the rate of deflation. If we divide equation (17) by P as given by equation (7), we see that real profits grow at exactly the inverse rate of the variation in prices, $sA-\delta$. So, an increase in deflation is matched by an increase in the real profit rate. Additionally, if we divide equation (16) by P as given by equation (7), we see that real wages also increase in the same magnitude as the real interest.

In summary, any variation in the deflation rate makes automatically for an identical variation in incomes, so that, for a given nominal interest rate, the correspondingly variation in real interest is matched by a similar variation in income, so that debtors (supposing they have income, which they should have, anyway) do not see their situation worsened.

3. MONEY BALANCES

I now assume that individuals and firms do not spend all their income in a given period, so that a fraction ϕ of total money is maintained in the form of cash-balances by these agents. The price level is now, accordingly, lower and is given by the relation between total spending and sales:

$$P_t = \frac{M\left(1-\phi\right)}{Y_{t-1}} \quad (18)$$

Wages are given by:

$$W = M\left(1-\phi\right)\left(1-\gamma-s\right) \quad (19)$$

It also follows that depreciation is just a slight modification of equation (14):

$$Depr = \delta P_{t-1}K_{t-1} = \delta\left(1-\phi\right)xM \quad (20)$$

Subtracting equations (20) and (19) from total sales, $M\left(1-\phi\right)$, profit is now given by:

$$\pi = M\left(1-\phi\right)\left(\gamma+s-\delta x\right) \quad (21)$$

Adding up the last three equations above we obtain the expression for nominal GDP which is equal to $M\left(1-\phi\right)$. So, we can see that nothing substantially changes when money balances are taken into consideration. Specifically, by equation (18), real wages and profits stay the same when compared to section 2. Total output, given by equation (9) is of course also unchanged. So, the level of cash balances only affects nominal values – the larger these balances are the lesser are nominal incomes and prices.

A recurrent argument against price deflation says that hoarding of money would increase by a significant amount because the mere holding of money would mean a positive rate of interest. By the fisherian equation a rate of deflation of 1% would mean a real rate of interest of 1% on holding money. At the same time, the argument goes, consumption and investment will be indefinitely postponed for the future because of expected declines in prices (which is the same thing as a positive real interest rate on money).

Now, it is likely that these would happen at first, but once expectations are adjusted people will see themselves with larger money holdings than desired because prices are going down and consumption is always the ultimate end of the individuals. We can see that today almost risk-free investments are available and it is not because of that that people stop consuming. A positive interest rate available for investing our money just means that a large purchasing power will be available for future consumption. This is exactly what happens with falling prices. The only difference in a scenario of deflation is that there will be available another risk-free asset other than government bonds or fixed interest deposits– that asset is money.

4. SAVINGS BY WORKERS

Wages are paid at the beginning of each time period out of a sum of Money $M\left(1-\phi\right)$ at the same time that dividends and capital goods are also paid to capitalists and firms. If workers decide to save part of those wages then what happens is that those savings are invested in firms through an increase of net investment in capital goods at the same time that total consumption decreases by the amount of those savings. Without further saving, in the next period total capital spending is greater by the amount of that previous saving and, with invariable money, nominal profits are lower, as wages stay equal and investment spending in physical capital is higher. So, this is just a particular case of an increase in savings accompanied by an increase in net investment as we saw in section 2. The only difference is that in the period in which new savings takes place we see a diminution in consumption out of wages and not out of profits. In the next period the situation is exactly the same as in section 2.

5. SAVINGS INVESTED IN WAGES

The model presented in this paper can also be adapted to the case where investment is made in workers' wages. As I am working with an exogenous model *a la* Solow all that would be necessary was to attribute an extra parameter to that variation in wages. But eventually we would find a steady-state situation with wages and profits constant and obtain the same general result – In a growing economy with constant money, that economy tends to an equilibrium with a constant level of nominal wages and profits, which is to say, a growing level of real wages and profits.

6. HOW WOULD FIRMS DECREASE PRICES?

In a scenario of perfect competition, which is what we are implicitly assuming here, prices tend, over time, to level with cost of production, allowance being made for normal profits. So a decrease in the cost of production tends naturally to induce a fall in prices so that excess profits become to dwindle. There is nothing dramatic in this and that's just the outcome of a growing output being sold against a constant amount of money. In the economy delineated above, average (unitary) cost equals:

$$\frac{P_K K + WL}{Y_t} \quad (22)$$

This means that average cost decreases over time (as Y increases and the numerator is constant): If prices decrease by the same rate, which is the case as seen by equation (6), then the profit margin in percentage terms stays the same. So the price

deflation works naturally as a constant restoration of profit's margins. See Selgin (2007, esp. pp. 5, 10).

7. CONCLUSION

In a scenario of a growing economy I have shown that with a constant level of money supply the price deflation that ensues does not decrease nominal wages and profits and, as a consequence, real growth in personal incomes is the natural outcome. In a standard growth model with a given exogenous amount of money, the accumulation of capital makes for a decrease in average costs of production, which, by means of competition induces individual firms to lower output prices.

I have also shown that this kind of deflation, which is frequently called growth-deflation (in contrast with debt or money deflation, for instance) rules out some common fears associated with deflation in general, namely an increase in the real burden of debts. This is because whether it is true that decreasing prices mean a real (in terms of purchasing power) increase to a given amount of nominal debt, on the other hand, and on the reasonable assumption that the debtor has some form of income, it is also clear that real incomes also rise. In particular, I have shown that a certain increase in the deflation rate is accompanied by an exact proportional increase in real profits and wages so that if, on one hand, the real value of debt increases, on the other hand the real value of incomes to pay that debt also increases.

I also address the other common fear associated with price deflation – that, supposedly, consumers and other agents postpone consumption and spending in general due to the expectation of general falling prices in the economy. This reduced spending, the argument goes, makes for decreasing incomes and even less spending and so on. I argue that in a scenario of price deflation what happens is that money turns out to be an interest bearing asset; that is, the mere possession of money increases its purchasing power given that prices decrease and the same amount of money buys more goods in the future. This is not substantially different from the situation where agents have at their disposal an asset with risk-free interest, such as most government bonds and insured time-deposits today. So, in a scenario of price deflation the only difference is that we have one more risk-free interest bearing asset – money. There is no additional reason for agents to save more money in this scenario as they could already have done so given the existence of other assets with virtually the same risk and higher expected returns.

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Appendix A. Derivation of the formulas for nominal wages and profits

Noting that total sales, $D_k + D_c$, equal M and depreciation is constant over time I will now solve for the steady-state values of nominal profits and wages, starting with equation (15) of the main text, which can be written as:

$$\pi = M - W - \delta x M \quad (A.1)$$

I will now look for a more convenient expression for π. First, I show that profits equal consumption by the capitalists, NC, plus net Investment, I. Net investment, in nominal terms, is the increment in physical capital and labor between two periods.[4]

$$I_t = D_{K_t} + W_t - \left(\delta x M + W_{t-1}\right) \quad (A.2)$$

NC, in turn, equals total consumption minus wages, by definition. So that, for a period t,

$$NC + I = \left(D_C - W\right) + \left(D_K + W - (\delta x_{t-1} M + W)\right) \quad (A.3)$$

As the rhs of equations (A.1) and (A.3) are equal, it follows that:

$$\pi = NC + I. \quad (A.4)$$

Now, as mentioned in the text, in each period capitalists can choose to consume more or less by withdrawing or increasing the money capital of the firms. I assume that capitalists decide in each period to use a fraction, γ, of M in their own consumption, ($NC = \gamma M$) so that substituting equation (A.4) in (A.1) we obtain:

$$W = M\left(1 - \gamma - \delta x\right) - I \quad (A.5)$$

The parameter γ is thus a measure of intertemporal preference for consumption so that the greater it is, the greater is the preference for present consumption as opposite to future consumption. Now, in order to obtain an expression for W that only depends on the parameters of the model I first note that $D_k + D_c$ equals:

$$D_K + \left(NC + W\right) = M \quad (A.6)$$

Using equation (A.5) and the definitions of D_K and N_C, equation (A.6) can be written as:

$$sM + \gamma M + M\left(1 - \gamma - \delta x\right) - I = M \quad (A.7)$$

From this it follows that:

$$I = M\left(s - \delta x\right) \quad (A.8)$$

That is, after all, the very definition of net investment – gross investment minus total depreciation (as wages stay constant and their difference between two periods is zero). See equation (14). Now substituting (A.8) in (A.5) we obtain the final expression for money wages:

$$W = M\left(1 - \gamma - s\right) \quad (A.9)$$

Using Reisman's numbers (M=1000, γ=0.1, s=0.6, A=2) total wages equal 300 monetary units. Now, going back to equation (A.1) we get the expression for nominal profits:

$$\pi = M\left(\gamma + s - \delta x\right) \quad (A.10)$$

We can also determine the *rate* of nominal profit as the amount of profit in t divided by total investment in t-1:

$$\frac{\pi_t}{W_{t-1} + D_{K_{t-1}}} = \frac{M\left(\gamma_t + s_t - \delta x\right)}{W_{t-1} + D_{K_{t-1}}} = \frac{M\left(\gamma_t + s_t - \delta x\right)}{M - \gamma_{t-1} M} = \frac{\gamma_t + s_t - \delta x}{1 - \gamma_{t-1}}.\text{[5]} \quad (A.11)$$

[4] Following Reisman I will assume from now on that new investment is used to increase physical capital only, wages remaining constant. Note, also, that x refers to parameters' values as of period t-1. See equations (12) and (13) of the main text.

[5] Notice, again, that x refers to the values of the parameters as of period t-1. See equations (12) and (13).

Using δ=1, as in Reisman's, we get x=0.6 and π=100, so that GDP equals $W+\pi+depr.$ = 300+100+600 = 1000. In a period with positive net investment this means that capitalists consume less and invest more, which corresponds to a change in the value of γ from 0.2 to 0.1 and in the value of s from 0.5 to 0.6, so that the nominal rate of profit in this period of transition equals, according to (A.11):

$$\frac{0.1+0.6-1\times\left(\frac{1+0.5\times 2-1}{2}\right)}{1-0.2}=\frac{0.2}{0.8}=25\%.$$

Now, formally, using (A.9), (A.10) and (14) of the main text, we see that GDP is just equal to the quantity of money:

$$W+\pi+\delta xM=M.$$

This is because as we are not assuming changes in money balances or even hoarding, all money must be spent either in consumption (W and NC) or investment in physical capital. This implies that as s is the fraction of money spent in investment, Υ must not exceed 1-s. Also, for a given s, an increase in Υ must imply a decrease in W.

DO HIGH LEVELS OF ANALYST FOLLOWING IMPROVE COMPANIES' CREDIT RATINGS: EVIDENCE FROM MENA REGION?

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Abstract

All investors and stakeholders in general worry about the accuracy of both the financial information and the corporate governance, yet at different scales. Knowing that inadequacies exist in the financial information, would we be able to find some ways that would help us improve the credit rating of the firms? In order to answer this question, our research's aim is to define the impact of analyst following (analyst quest) on firm's credit rating throughout the period between 2002 and 2014. The research' results exhibit that the level of analyst following has a positive influence on firms' credit rating. However, this constructive influence occurs only when there is a significant degree of analyst following. Indeed, at a low analyst following, our results reveal a negative correlation between this factor and the firm's credit rating. Consequently, we end up concluding that a high degree of analyst following makes it difficult for insiders to miscommunicate the right information related to firm's value which reduces agency problems leading to a positive credit rating, thus a low cost of debt.

Keywords: Analyst Following, Corporate Governance, Credit Rating

1. INTRODUCTION

For the stock market to function efficiently, it needs accurate information. Once the appropriate information concerning the firms is merged with the prices, the securities are fairly priced. In fact, financial analysts work on highlighting new information related to the firm which will help them in this process. The investment decisions are usually taken by the stock market participants using the research reports of analysts, their projections, and recommendations as precise information, Lang et al. (2004). Jensen and Meckling (1976) propose that financial analysts, regarded as information intermediaries, have the ability to lessen the agency problems that firms are facing. The market value of an enterprise is a growing function of the width of investor attentiveness as Merton (1987) claims. In order to raise the responsiveness of an investor concerning a company, conventional wisdom recommends one technique to realize this which is boosting the degree of analyst following. Chang and Jo (1996) assert that the value of a business is a positive function of the number of analysts following a company. Moreover, analyst following can have an impact on the company's valuation by dropping information asymmetries and agency problems. The main objective of those analysts is to find out the information that a company wants to hide so that they guarantee that all the information is accessible to the participants in the stock market. Consequently, they influence the firm's valuation in a positive way and decrease the asymmetry of the information, thus we believe that the influence on the cost of debt will be favorable. Additionally, the higher the performance of analyst following, the higher the information found out. Hence, the extent of analyst following ought to be a significant factor of relationship between the company's valuation and the analyst following, Farooq and Satt (2014).

Through this paper, we are willing to outspread the elements referred to above by verifying if the analyst following boosts the credit rating of a business, which is an essential representation of the evaluation of the company in MENA context. As far as we know, this is the first trial that aims to bind between the two variable, Farooq and Satt (2014) already demonstrated that analysts following can boost firm performance; therefore, we can say that this paper is an extension to our previous work in order to see what if the analysts' following can go to the extent of not only positive firm performance but also the an improved credit rating. Knowing that analysts are able to expose new information, it is spontaneous to claim that they have the ability to diminish the information asymmetries between foreigners and insiders, Farooq and Satt (2014). Declining the information asymmetries leads to an expensive expropriation skill as well as penalizing managers by decreasing the problems of agency. Thus, analyst following is the most important element that can determine the performance of a company. Moreover, the higher the extent of analyst following, the lower is the information asymmetry as recommended by the conventional wisdom. Consequently, the credit rating should be better when the magnitude of analyst following is higher. According to our fallouts, we can claim that analyst following influences positively the credit rating between the year of 2002 and 2014. Nevertheless, only high quality analyst following results in this positive influence. When lower quality analyst following is involved, we report a negative influence

on firm's credit rating– an unforeseen finding. Our outcomes are partially dependent on previous literature that takes into consideration any technique that helps in resolving information asymmetries between insiders and foreigners as appropriate value for the participants in the stock market. Our results determine that the low level of analyst following affects the firm's credit rating in a negative way. This is astonishing for the reason that, at most, low analyst following should not influence the firm's cost of debt. The association between the two in a negative way is counter intuitive.

The negative association between the cost of debt and the earnings per share is another surprising result of our analysis. Within various sub-samples, this association is vigorous. The low information content of reported earnings is the reason for this negative influence. Because the investors are conscious of the misreport information of the firms in the developing markets, they have little faith on reported information, hence, discounting earnings per share. Furthermore, our paper analyzes the effect of analyst following on the reported information related to earnings in order to determine if the extent of analyst following increases the reported earnings information. Indeed, our analysis' results exhibit that it is true that analyst following increases the reported information concerning earnings, but it does not succeed entirely in strengthening the faith that investors have regarding the reported information. While the size of analyst following goes up, the extent of the negative connection between the performance of the firm and earnings per share decrease pointedly as confirmed by our research's results.

Our results are essential for creditors. The major difficulty these creditors are facing is their inability to differentiate between good firms and bad ones. Though, according to our results, these creditors may use analyst following to identify which company has the possibility and the ability to be solvent, conversely, which company may not be. Moreover, the analyst following, based on our results, can be used to ameliorate the informativeness of reported earnings. Furthermore, our results confirm that in order to differentiate between real and manipulated accounting information, creditors with analyst following can round off accounting information. It is imperative to indicate here that our paper enhances the debate on the efficiency of alternate/external governance mechanisms. On the other hand, our analysis' results show that analysts have some value regarding the stock market participants because they provide an augmented analysis that aids in decreasing information asymmetries, hence, ameliorating the firm's credit rating.

The remnant of the paper will include the following: Section 2 briefly discusses motivation and background for this study. Section 3 summarizes the data and Section 4 encounters valuation of our hypothesis. Section 5 discusses implications of our findings and the paper concludes with Section 6.

Information is the significant point to efficient functioning of the stock markets. Securities get priced correctly when pertinent information about companies get merged into the prices. Financial analysts play an essential role in this process by carrying out new information about companies. These analysts are capable to decrease agency problems within the company Jensen and Meckling (1976). Merton (1987) claims that the market value of a firm is an increasing function of the breadth of investor awareness.

Satt (2015) stated that when a company is perceived to be highly performing in "the eyes" of the financial analyst, the risk of default is very low, so the more the company is performing the better will be the its credit quality, hence higher the quality credit terms. It is also found that when the overall market believes in the good performance of a company, this latter will have the pressure to keep its positive performance.

This chapter highlights the idea that analyst following is a value that strengthens emerging markets' mechanisms given that financial analysts play a huge role in resolving some of the corporate governance mechanisms. Providing recent information to the participants of stock market helps analysts decide on the ineffectiveness governance mechanisms. According to Michaely and Womack (1999), analysts are defined as the agents who gather, clarify, and provide stock market participants with both public and private information. Analysts are able to determine information asymmetries by spreading precious information to creditors. Moreover, Amir et al. (1999) proposes that the research of analysts alleviate information insufficiencies that reside in financial statements. This paper discusses the role that analysis play as information providers is very significant (Claessens et al., 2002; Lins, 2003; Dyck and Zingales, 2004; Nenova, 2003). Nenova (2003) claims that firms with information asymmetries described as very high are discounted by creditors. Information asymmetries expose creditors to extreme risk and initiate agency problems within firms. Consequently, any mechanism that will contribute to the lessening of information asymmetries is of major significance to any stock market participant.

In fact, our arguments go in the same flow as the past literature arguments confirming that financial analysts can play the role of an enhancing mechanism for corporate governance in emerging markets, Farooq and Satt (2014). Analysts' substitution effect is portrayed in Lang et al. (2004) documentation. They illustrate the degree of analyst following that mitigates the unpleasant effect of lower creditors' protection on valuation. In the same context, Knyazeva (2007) claims that by substituting for corporate governance, analyst following enhances a firm performance. The major argument that is provided here states that analysts' position as information providers gives creditors the possibility to balance all the misrepresented information by the firm. Conventional wisdom argues that the higher the number of analysts digging for information, the larger are the chances that information is rightly reported and disclosed. As a matter of fact, lower analyst following should influence firm's credit rating less than higher analyst following. Hence, information asymmetries are not resolved to the point that creditors start valuing analyst following. We can come to the conclusion that information asymmetries draw a constructive but a nonlinear relationship between firms' cost of debt and analyst following.

2. ANALYSTS' FOLLOWING AND THE COST OF DEBT

Many characteristics are supposed to influence the company's cost debt, we suspect that analysts' following is one of the important variables that affect the cost of debt. Giving numerous factors (refer to table 1 for more information about these factors), HIGH analysts' following refers to the level of analysts following that is above the average; and LOW analysts following refers to the level of analysts following that is below the average. Results revealed that when there is a rise in the score, there is a decline in the cost of debt.

We have the following hypothesis:

H1: High level of analyst following will lower the company's cost of debt financing.

H2: High level of analyst following leads to higher bonds ratings.

The study we are conducting is going to bring more value since the existing one is very limited. The first goal is to evaluate the perception of the corporate bond market of the quality of the company's performance and analysts following in the market. The second objective, the study we are making is not the same as Jenzazi (2010) and the other studies because it will stress on the MENA framework when it comes to this issue. That is to say that not only we will have a better understanding of the functioning of the different debt markets around the world, but this will enable us to perceive in which way the external governance mechanisms (such as the legal and extra-legal institutions) relate to the semi-internal mechanisms (in our case analysts' following) in order to improve the entire governance quality in one country.

3. METHODOLOGY AND DESCRIPTIVE STATISTICS

3.1. Specifications

The purpose of the research is to determine the relationship between analysts' following s and bonds' ratings. The following general specification will be used for this purpose.

Bond Rating = f (Analysts' following, Issuer Characteristics, Issue Characteristics)

The determinants used to make the study are the three following: Analysts' following, Issuer Characteristics, Issue Characteristics. Issue Characteristics variable refers to the profitability of the company computed using the company's return on assets, the company size which measured by the company total assets, the company risk that is measured by the company variability of earnings, and the leverage that is measured by the debt to equity ratio. This variable is composed of issue size or the size of the bonds, the bonds maturity, and the convertible provision (an option enabling a bondholder to exchange the bonds for shares).

The rating bonds used are from seven distinct ordering categories (exemplified by the S&P ratings). The last statement signifies that since the bond rating is an ordinal variable, we can use the Ordered Probit Model.

3.2. Data sources and variables

Our sample is made of 600 companies selected from Mena Region. Table 2 represents the description of this sample between year 2002 and 2014. The ratings bonds used have a range from AAA to D, taken from S&P credit rating and they represent companies' credit worthiness. This enable to distinct between the companies that can repay back their loans at due dates and those who cannot. Appendix reveals that the proposed ratings obtained from S&P have been converted to ordering numbers ranging from 1 to 7, 1 representing the lowest rating and 7 the highest one. To convert the ratings we used the research that was conducted by Ashbaugh, Collins, and LaFond (2006). The data of bonds ratings were obtained from F- Database.

This paper emphasizes in which way the extent of analyst quest impacts the performance of a company in the MENA region. A similar study was conducted by Satt(2015) that opted to clarify the relationship between analysts' recommendations and their impact on credit rating; however, when it comes to analysts' following, this is the very first attempt to test for it and include it in such a context.

3.3. Analyst following

Analyst following can be defined as the highest number of analysts that deliver annual earnings forecasts in a specific year. In fact, when there are a high number of analysts following a company, it leads to a better information environment and a small information asymmetry. We obtain the statistics concerning the analyst following from the I/B/E/S.[6] Table 2 provides the descriptive statistics related to the analyst following throughout our sample period. The three panels provide descriptive statistics: panel A delivers the statistics corresponding to each year, meanwhile the two other panels B and C supply same data corresponding to each country and industry respectively. Based on the data from Table 2, Panel A, we notice that average analyst following went up from 0.32 to 1.54 between 2002 and 2014. Moreover, the data given exhibits a regular enhancement in analyst industry in the MENA region. Furthermore, it reveals that, in 2002, 13 analysts is the maximum of analyst following that a company can produce, but this number went up in 2014 to reach 26 analysts. On the other hand, Table 2, Panel B, determines that Qatar reaches the highest level of analyst following in the region, and firms headquartered in United Arab Emirates, Morocco. United Arab Emirates, Morocco, and Egypt have an average analyst following of 1.6780, 1.6238, and 1.3145 respectively. Besides, Table 2, Panel B, shows that companies that headquartered in Iran and Turkey have the least level of analyst following compared to other firms in the region. On the other hand, telecommunication's firms are characterized by having the highest number of analyst following as shown in Table 2, Panel C. This result is obvious since most of the firms working in the sector of telecommunication have a large size and are very lucrative in the region.

[6] The Institutional Brokers' Estimate System (I/B/E/S) is a database owned by Thomson Financials and provides data on analyst activities, such as earnings forecasts and stock recommendations issued by them. The I/B/E/S provides a data entry for each forecast and each recommendation announcement by each analyst whose brokerage house contributes to the database. Each observation in the file represents the issuance of a forecast or a recommendation by a particular brokerage house for a specific firm. For instance, one observation would be a forecast or a recommendation by Brokerage House ABC regarding Firm XYZ.

Table 1. Variables description and sources

Variable	*Description*	*Source*
Bonds Ratings	Appendix A provides detailed information about this ordinal variable. The bond ratings that are used by S&P are changed to a range from 1 to 7 where 1 represents the lowest rating and 7 the highest rating. Bond rating depends on the company bonds portfolio.	F-Database
High Analysts' Following	Analysts following is the number of analysts following a firm at a given point of time. High Analysts' following is a dummy variable that is given the value 1 if the level of analysts following is above the mean; otherwise, value of 0 is assigned	W-S Database
Company Profitability	A variable that calculates the profitability of the company by dividing its net income by its total assets.	W-S Database
Company Size	The company size is calculated by its total assets in dollars.	W-S Database
Company risk	The company's risk is calculated by the standard deviation of the net income of every company in the sample.	W-S Database
Bonds Maturity	A variable that calculates the log maturity in years. The weights are measured by the size of the issuance of the maturity class to the total size of the issuance for a given year. Then, the weights are multiplied by the respective maturity and added to get the bonds weighted average maturity.	W-S Database
Convertible Provisions	A dummy variable that gives the value 1 to companies with convertible provisions and 0 to companies with no convertible provisions. These provisions let the bondholder change his or her bonds to shares.	W-S Database
Issue Size	A variable that represents the size of the issuance.	W-S Database
Leverage	A variable that represents the influence of the company; calculated by dividing the company debts by its equity.	W-S Database
Creditors Rights	This variable is an index that ranges from 0 to 4. When a country enforces restrictions in favor of creditors, 1 is added to its score. When the secured creditors make sure they get their investment back, the score changes to 2. When the secured creditors are the first to collect their money in case of bankruptcy, the score changes to 3. At the end, when the secured creditors do not wait for the problems to get resolved in order to get their money back, the score changes 4.	Djankov et al. (2005)
Public Registry	Public registry is a database developed by public authorities. This database contains all the debt profiles of borrowers in the economy. The assembled information is available to all financial institutions. The variable is given the value 1 if the country has a public registry and 0 if otherwise.	Djankov et al. (2005)
Efficiency of Bankruptcy Process	When a company exposes itself to bankruptcy costs, theses costs are subtracted from the company's terminal value, which is discounted to find the present value. The greater the value, the better the company.	Djankov et al. (2007)
News Circulation	Daily newspapers sold, which is divided by the population.	Dyck and Zingales (2004)
Manufacturing	Dummy variable that equals 1 if the company functions in the Manufacturing industry and 0 if otherwise.	
Trades	Dummy variable that equals 1 if the company functions in the Trades industry and 0 if otherwise.	
Finance	Dummy variable that equals 1 if the company functions in the Finance industry and 0 if otherwise.	
Utility	Dummy variable that equals 1 if the company functions in the Utility industry and 0 if otherwise.	

Table 2. Sample description

The following table documents the descriptive statistics for analyst following in the MENA region. The sample period is from 2002 to 2014. Panel A document descriptive statistics for each year, while Panel B and Panel C document similar statistics for each country and each industry respectively.

Panel A. Analyst following in different years

Years	*Average*	*Standard deviation*	*Maximum*	*Minimum*
2002	0.3233	1.1791	13	0
2003	0.6909	1.4454	13	0
2004	0.2621	0.8497	15	0
2005	0.4681	1.1791	14	0
2006	0.3454	1.6577	18	0
2007	1.4344	2.1206	19	0
2008	1.4015	2.8732	22	0
2009	0.2621	0.5444	21	0
2010	0.2456	1.1791	21	0
2011	0.344	1.4454	21	0
2012	1.0439	2.1206	22	0
2013	1.4534	2.8732	23	0
2014	1.5430	2.8732	26	0

Panel B. Analyst following in different countries

Country	*Average*	*Standard deviation*	*Maximum*	*Minimum*
Algeria	0.3095	0.6220	3	0
Bahrain	1.3145	2.3932	14	0
Egypt	0.3102	0.7532	8	0
Iran	0.2415	0.9515	8	0
Iraq	1.6238	1.1392	6	0
Jordan	0.6487	1.8132	15	0
Kuwait	0.6352	1.6066	23	0
Lebanon	1.6780	3.2715	12	0
Yemen	0.3095	0.6220	3	0
UAE	1.3145	2.3932	33	0
Libya	0.3102	0.7562	4	0
Morocco	0.2415	0.9515	12	0
Oman	1.6268	1.1692	14	0
Azerbaijan	0.6487	1.8162	12	0
Sudan	0.6652	1.6066	2	0
Qatar	1.6780	6.2715	34	0
Saudi Arabia	0.6095	0.6220	23	0
Syria	1.6145	2.6962	3	0
Tunisia	0.6102	0.7562	5	0
Turkey	0.2415	0.9515	12	0
Mauritania	1.6238	1.1392	8	0
Cyprus	0.6487	1.8132	6	0
Georgia	0.6352	1.6066	5	0

Panel C. Analyst following in different industries

Industry	*Average*	*Standard deviation*	*Maximum*	*Minimum*
Oil and Gas	0.3647	0.9238	5	0
Basic Materials	0.9000	1.5137	10	0
Industrials	0.7870	1.6066	14	0
Consumer Goods	0.4603	0.9242	5	0
Healthcare	0.6000	0.8329	3	0
Consumer Services	0.4240	1.4241	15	0
Telecom	4.7600	4.6319	14	0
Utilities	1.6285	1.7836	6	0
Financials	0.7851	1.9637	20	0
Technology	1.1428	2.3904	11	0

The panels below provide an account of the sample that was used to obtain the outputs. Panel A identifies the countries that companies in the sample operate in. Panel B provides the distribution of the study on a yearly basis (starting from 2002 to 2014). Panel C provides an account of the observations based on the industry.

Panel D. Sample distribution per country

Country	*Number*	*Percent*
Algeria	12	2,00
Bahrain	34	5,67
Egypt	22	3,67
Iran	12	2,00
Iraq	23	3,83
Jordan	76	12,67
Kuwait	56	9,33
Lebanon	4	0,67
Yemen	6	1,00
United Arab Emirates	100	16,67
Libya	6	1,00
Morocco	12	2,00
Oman	60	10,00
Azerbaijan	4	0,67
Sudan	5	0,83
Qatar	87	14,50
Saudi Arabia	34	5,67
Syria	2	0,33
Tunisia	14	2,33
Turkey	18	3,00
Mauritania	1	0,17
Cyprus	6	1,00
Georgia	6	1,00
Total	600	100

Panel E. Sample distribution per years

Years	*Number*	*Percent*
2002	22	3,67
2003	21	3,50
2004	34	5,67
2005	56	9,33
2006	34	5,67
2007	32	5,33
2008	23	3,83
2009	43	7,17
2010	34	5,67
2011	44	7,33
2012	81	13,50
2013	78	13,00
2014	98	16,33
Total	600	100,00

Panel F. Sample distribution per industries

Industry	*Number*	*Percent*
Manufacturing	233	38,83
Transport	111	18,5
Trades	89	14,83
Financial Services	133	22,16
Utility	34	5,66
Total	600	100,00

The value of 1 is assigned to the dummy variable that is the analyst average recommendations if it is positive (buy or strong buy) and 0 otherwise.

To provide more explanation on the bonds ratings, two control variables were added to the model, which are the issue and issuer variables. More details on these variables are given in Table 1. The control variables data were obtained from W.S Database.

Following the research papers of Satt (2015), Anderson, Mansi and Reeb (2003) and Boukhari and Ghouma (2008), the calculation of the bonds ratings, the convertible provision, and the issue size (the issue characteristics) was done on a portfolio approach. We compiled the whole company issues for each year, and the size of the issue to the entire issues represented the weight used in the calculation of the average bonds ratings, the convertible provision, and the issue size associated with each company over every year of the duration of our study. The formula of the bond rating can be presented as thus:

Prob. (Bonds Ratings=X) = F (b_1. Analysts' Following + b_2. Company Profitability + b_3. Company Size + b_4. Company Risk + b_5. Bonds Maturity + b_6. Convertible Provisions + b_7. Issue Size + b_8. Leverage + Institutional variables + Year Dummies+ Industry Dummies + ei); Where X belongs to {1, 2, 3, 4, 5, 6, 7}

4. EMPIRICAL RESULTS

Panel (A), table 3 stands for the descriptive statistics connected to the variables used in our study, which begins with the credit rating variable with a mean equal to 4.432 and that signifies an S&P rating of BBB+. The first variable in the issuer characteristics variables stands for analysts' recommendations with a mean equal to 0.71. This signifies that about 71% of the companies of the sample are having positive recommendations - a result that confirms what Jegadeesh et al. (2004) presented, claiming that most of analysts' recommendations are close to "buy" recommendations, which is the same phenomenon as discussed by Satt (2015). The average mean for the return on assets regarding the profitability of the company is 5.32. 88 million dollars, which was calculated by averaging the total assets of the 600 companies in the sample, represent the mean of the company size. 4.43 years represents the mean average for the bonds maturity based on the issuance variables. The second variable, represented by the convertible bonds option, has a mean equal to 5.6%, meaning that 5.6% of the companies offered this option to their bondholders.

Panel (B1) from table 3 shows the correlation between the bond rating taken as the dependent variable and the other independent variables that, which the analysts' are following, the issue characteristics variables, and the issuer characteristics. Consequently, there is a strong

relationship between the dependent variable and the various other independent variables.

The analysts' recommendation, the company performance, the company size, and the convertible option are really connected to the dependent variable at important levels of less than 1 percent.

In addition, it was revealed that the company leverage is interconnected positively at a significant level of 5 percent. Nevertheless, only one variable that is replaced by Bonds maturity was found to be negatively related to the Bond Ratings at an important level of less than 1 %. On the other hand, it was discovered that there is no significant association between the two variables, the issue size and the company and the bonds ratings.

Table 3. Summary statistics

The table is divided into three panels. Panel (A) shows the descriptive statistics, Panel (B) shows the correlation analyses, and panel (C) provides a mean test comparison using the T-test and the Wicoxon-Mann-Whitney tests. The variables used are as followings: Bond Ratings, which is an ordinal number that ranges from 1 to 7, with the latter being the highest rating and the former the lowest rating. Analysts' average following: a dummy variable that allocates the value 1 to companies with a high level of analysts' following for a given year and 0 if otherwise; the mean of this variable represent the average number of analysts following firms. Company Profitability: the company's profitability is measured in term of its return on assets. Company Size: the total assets were used to calculate the size of the companies included in the sample. Company Risk: it is calculated by the standard deviation of net income. Bonds Maturity: the average maturity for the bonds portfolio released by a company; weights were given on the basis of the size of the issuance to the total issuances. Convertible Provisions: a dummy variable that assigns the value 1 to companies with convertible option and 0 if otherwise. Issue Size: it stands for the size of the issuance in term of dollars. Leverage: the company leverage is calculated by its debt to its equity ratio. The stars that show in the tables signify the following: *** for a significance that is lesser than 1%, ** and * are for a significance that is lesser than 5% and 10% respectively.

Panel A. Descriptive statistics

Variable	*Observations*	*Mean*	*Standard deviation*
Bonds Ratings	600	6.43	0.233
Average Following	600	0.345	0.64
Company Profitability	600	7.545	23.765
Company Size (in million of U.S Dollars)	600	134.54	7.66
Company risk	600	987,334.6	54,54.6
Bonds Maturity (in years)	600	7.64	0.433
Convertible Provisions	600	0.134	0.54
Issue Size	600	675,654.5	5,766,433
Leverage	600	345.76	3,544.654

Panel B1. Correlation between the average analysts recommendation and bonds ratings

Variable	*Bonds ratings*	*Average recommendation*	*Company profit*	*Company size*	*Company risk*	*Bonds maturity*	*Convertible provisions*	*Issue size*	*Leverage*
Bonds ratings	1.000								
Average recommendation	0.0239 (0.0025)***	1.000							
Company profitability	0.252 (0.0044)**	0.0654 (0.0004)***	1.000						
Company size	0.5699 (0.0005)***	0.0545 (0.0554)*	-0.1455 (0.997)	1.000					
Company risk	0.0225 (0.0525)	-0.04554 (0.6551)	0.00255 (0.0052)**	0.5655 (0.0025)**	1.000				
Bonds maturity	-0.6754 (0.0054)**	0.5422 (0.0042)**	-0.0009 (0.4546)	-0.0344 (0.0000)***	-0.0032 (0.0097)*	1.000			
Convertible provisions	0.9799 (0.0004)***	0.0543 (0.9340)	0.0554 (0.0074)**	-0.0133 (0.0004)***	0.0333 (0.3979)	0.0333 (0.059)**	1.000		
Issue size	0.0343 (0.0033)**	-0.0333 (0.9999)	0.0344 (0.9975)	0.0343 (0.9534)	0.4333 (0.0043)**	0.3333 (0.0093)**	0.3433 (0.3433)	1.000	
Leverage	0.0333 (0.0343)**	-0.0333 (0.0099)**	-0.0033 (0.9545)	0.3334 (0.0003)***	0.0454 (0.9043)	0.3333 (0.0554)**	-0.03453 (0.0034)***	0.0333 (0.4554)	1.000

Panel B2. Correlation between the bonds ratings and the institutional variables

Variable	*Bonds ratings*	*Creditors' rights*	*Public registry*	*Efficiency of bankruptcy process*	*News circulation*
Bonds ratings	1.000				
Creditors' rights	0.242 (0.0001)***	1.000			
Public registry	0.4444 (0.0024)**	-0.5444 (0.0001)***	1.000		
Efficiency of Bankruptcy process	0.0042 (0.0124)*	0.7666 (0.0001)***	-0.4554 (0.0011)**	1.000	
News circulation	0.4224 (0.0001)***	0.5445 (0.0032)**	-0.3444 (0.0000)***	0.7567 (0.0000)***	1.000

To verify the first hypothesis, a mean comparison tests was carried out and the sample was separated into sub groups. The first one stands for companies with High level of analysts' following and the second for the remaining. A T-test confirms the hypothesis, knowing that the first group's mean has a higher value (5.2) compared with the second group's mean (3.1). Moreover, both the T-Test and the Wilcoxon-Mann-Whitney test support the difference between the two means that is considerably different from zero (5% significance level).

This information indicates that this company is one of those with high level of analysts' following that profits from higher credit ratings.

Panel A from Table 4 stands for the results of the ordered Probit estimation on bonds rating. These results are the same as those we expected from the study. The results clearly show that there is a positive connection between bonds ratings and analysts' following with +0.7 at a significance level of 5%. Thus, this corroborates the first hypothesis made about the study saying that there is a positive correlation between analysts' following and bonds ratings. Both the company's profitability and size have positive impact on the bonds ratings. Nevertheless, regarding the convertible bonds option, it is the only variable that is capable of having a meaningful impact on companies' bonds ratings. On the other hand, no major effect on the bonds ratings is caused by the other issue and issuer variables.

Table 4. The effect of high levels of analysts' following on bond ratings

The table provides the output for the Ordered Probit Regression of the Bond Ratings as being the dependent variable. The variables that are listed below are: Bond Ratings, which is an ordinal number that ranges from 1 to 7, with the latter being the highest rating and the former, the lowest rating. Analysts' average following: a dummy variable that allocates the value 1 to companies with a high level of analysts' following for a given year and 0 if otherwise; the mean of this variable represent the average number of analysts following firms. Company Profitability: the company profitability calculated in terms of its return on assets. Company Size: the total assets were used to calculate the size of the companies included in the sample. Company Risk: it is calculated by the standard deviation of net income. Bonds Maturity: the average maturity for the bonds portfolio released by a company; weights were given on the basis of the size of the issuance to the total issuances. Convertible Provisions: a dummy variable that assigns the value 1 to companies with convertible option and 0 if otherwise. Issue Size: it stands for the size of the issuance in term of dollars. Leverage: the company leverage is calculated by its debt to its equity ratio. The stars that show in the tables signify the following: *** for a significance that is lesser than 1%, ** and * are for a significance that is lesser than 5% and 10% respectively.

Dependent variable = Bonds ratings	*Expected sign*	*Model*
Average analysts' following	+	0.0231 (0.0033)**
Company profitability	+	0.0233 (0.0000)***
Company size (in billions of U.S Dollars)	+	98.6 (0.0001)***
Company risk (in millions of U.S Dollars)	-	-335 (0.678)
Bonds maturity	-	-0.577 (0.063)*
Convertible provisions	+	0.787 (0.0001)***
Issue size	-	3.23×10 (0.0223)
Leverage	-	-0.0001 (0.323)
Creditors rights	+	0.533 (0.0000)***
Public registry	+	1.222 (0.0000)***
Bankruptcy efficiency	+	0.0353 (0.0000)***
News circulation	+	0.2333 (0.0000)***
Manufacturing		0.775 (0.569)
Trades		-0.0232 (0.998)
Finance		0.122 (0.0000)***
Utility		0.233 (0.0001)***
N		600
Pseudo R^2		19.37%
LR – Chi^2		322.35
Significance		(0.0000)***

The study confirmed that there is a significant positive link between analysts' following and bonds ratings in MENA region. A company that could generate a high level of analysts following will directly experience higher rating bonds. This further explains that the costs of debt, in the form of bonds, are decreased as a result of creditors asking for lower premium to lend their money.

5. LIMITATIONS

One major drawback was noticed about the sample selected. In point of fact, F-Database and W-Database gave us the bonds ratings data and recommendations' data, respectively. These two databases allowed us to assemble 600 observations that followed the distribution presented in Table 2. In fact, this statement could have influenced our sample representativeness.

6. CONCLUSION

The study carried out in this paper seeks to show that there is a positive connection between analysts' following and the bonds rating. For this reason, a sample of 600 companies selected from MENA region was used. The sample data is from 2002 to 2014, a period of 12 years. Our expectations agree

with the results of the Ordered Probit regression. Consequently, a company that's able to produce a high level of analysts' following is able to have higher bonds rating. In other words, a company with good performance is one with high level of bonds ratings and this has an effect on the debt cost by reducing it. Bearing in mind that there are no previous studies carried out to explain the purpose discussed in our paper, this research done will bring more value on this, even in the developing markets context. When the firm is being followed by a high number of analysts, it gives a favorable signal about the company's corporate governance, because high level of analysts' following can be translated to a large number of specialists that are zooming on the company and every single action conducted by its management will be communicated widely to the market, even in less efficient markets, Satt (2015). Therefore, high levels of analysts following, reduces the fear of creditors and assures them that if there is any piece information that they should now about certain company, it will be already known to them; thus, they will boost their credit ratings and lower the interest rates.

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Appendix A. S&P credit ratings conversion

S&P Bonds Ratings	*From D to CCC+*	*From B- to B+*	*From BB- to BB+*	*From BBB- to BBB+*	*From A- to A+*	*From AA- to AA+*	*AAA*
New Ratings	1	2	3	4	5	6	7

ASSESSING MANDATED CREDIT PROGRAMS: CASE STUDY OF THE MAGNA CARTA IN THE PHILIPPINES

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Abstract

We examine the effects of a mandated credit program to small and medium enterprises in the Philippines (Magna Carta Law) using a panel dataset compiled from official data published by the Bangko Sentral ng Pilipinas. The final sample of 109 financial institutions represented over 90% of total finance sector assets in the Philippines. We highlight three important findings. First, although the total lending levels to micro, small, and medium enterprises (MSMEs) grew slightly, the percentage shares of loans allocated to MSMEs declined drastically from a peak of 30% of total loans in 2002 to 16.4% in 2010. Second, following the upwards revision of the loan target (from 6% to 8%) for smaller firms in 2008, there was a sharp increase in noncompliance especially amongst universal and commercial banks. On the other hand, total loans to medium enterprises were still more than threefold larger than the targeted 2%. Third, there is an increased heterogeneity in optimal loan portfolio across banks. Most surprisingly, the absolute level of MSME lending by rural and cooperative banks declined since 2008. Direct compliance amongst universal and commercial banks decreased beginning in the late 2007, while that of thrift banks increased to almost 100%. Abolishing the Magna Carta targets for medium-sized enterprise loans would most likely yield little adverse effects. Meanwhile, efforts to improve financial access to MSMEs should focus on alternative nondistortionary ways to increase financing supply, such as improving institutional framework for informational availability and development of equity and bond markets for MSMEs.

Keywords: Financial Inclusion, Financial Markets, Financial Policy, Philippines, SME, Targeted Lending

1. INTRODUCTION

Micro, small, and medium enterprises (MSMEs) is the lifeblood of most economies. A vibrant MSME sector is especially essential in spreading the economy's wealth in developing economies, by creating more opportunities in rural areas, maintaining social stability, and fostering inclusive economic growth. Central to MSME development is access to finance. Availability and cost of funds determine firms' ability to compete for market share, innovate, expand and withstand business-related stresses. However, since financial markets in most developing economies are largely underdeveloped with far from ideal regulatory frameworks, many governments in developing Asia have designed medium and long-term MSME development plans, with the main goal of improving financing for MSMEs.

In the Philippines, one of the most important inclusive financing policies is the mandated credit program known as the MSME Magna Carta (Magna Carta). MSMEs account for 99.6% of total firms and 61% of total employment in the Philippines. A recent study of the Philippines found that access to formal sector financing is indeed one of the key constraints that strongly affect firms' dynamism (see Khor, Sebastian, and Aldaba 2013). At the same time, MSMEs do not have easy access to the equities nor bonds market.

The main objective of the Magna Carta legislation was to promote, support, strengthen and encourage the growth and development of MSMEs in all productive sectors of the economy particularly rural and agriculture-based enterprises.[7] The Magna Carta was first enacted and implemented in 1991 (courtesy of Republic Act 6977)—a time when the authorities were grappling for ways to resurrect an ailing economy following a decade of tumultuous business climate. In the subsequent twenty years, the law was amended twice to take into account the changes in the business and economic conditions.

The Magna Carta mandated Filipino banks to allot 10% of their loan portfolio to MSMEs. Although not explicitly mentioned, there are three reasons why the regulation specifically targeted banks. Firstly, banks hold the biggest stock of financial resources in the Philippines, accounting for approximately 80% of domestic financial resources. Secondly, banks have the most extensive branches among credit intermediaries. Lastly, banks are administratively easier to monitor since they regularly report their activities to the Philippines central bank.[8]

[7] Republic Act No. 9501. Magna Carta for Micro, Small, and Medium Enterprises (MSMEs). http://www.lawphil.net/statutes/repacts/ra2008/ra_9501_2008.html

[8] While there were questions raised on the rationale of the policy, Medalla and Ravallo (1997) argued that this kind of

Mandated credit program such as the Magna Carta is not unique to the Philippines. Lending targets set for priority sectors, including small and medium enterprises (SMEs), are imposed in developing economies such as Afghanistan, India, Pakistan, and Sri Lanka. The Magna Carta is also not the first mandated credit provision imposed on Filipino banks. In 1974, the Philippines central bank had directed banks to allot a portion of their loan portfolio to the agriculture sector. This central bank issuance eventually became known as the Agri-Agra Law and continues to be an active regulation to date.

How has the Magna Carta impacted banks' lending towards MSMEs? Surprisingly, literature assessing the implementation of the law and its economic impact is very limited. Medalla and Ravallo (1997) assessed the way banks responded to the Agri-Agra Law and the Magna Carta. The authors found out that between 1975 and 1996, compliance with Agri-Agra Law had continuously declined. Furthermore, compounded annual growth of Agri-Agra Law loans during the period is roughly 3 percentage points lower than the annual growth of total loan portfolio of Filipino banks during the same period.[9] The authors also noted that from 1991 to 1996, aggregate compliance ratios to the Magna Carta by bank type remained above what the law requires by a good margin. They just highlighted that foreign banks tend not to comply with the law on a consistent basis and are drawn toward alternative compliance mechanisms rather investing directly in firms in spite of the general trend in the industry that is skewed heavily on direct lending.

Furthermore, little is known on the compliance with Magna Carta beyond 1996. This paper is thus undertaken to investigate the patterns of bank lending to MSME in the Philippines after the 2008 Global Financial Crisis and in conjunction to that, the compliance of banks to the Magna Carta lending provisions post 1996. We will also attempt to shed light on the characteristics of banks base on their lending exposure to the MSMEs in terms of bank type. To our knowledge, this is the first publicly available study on MSME lending in the Philippines from banks' perspective.

This paper is organized as follows: Section 2 briefly describes the domestic financial market conditions, the customary sources of credit of MSMEs in the Philippines and the government initiatives to boost MSME financing particularly the Magna Carta. Section 3 will layout the salient features of the lending provisions of the Magna Carta. Section 4 will assess the trends of bank lending to MSMEs as well as their compliance to the lending provisions of the Magna Carta using the datasets compiled by the central bank of the Philippines, Bangko Sentral ng Pilipinas (BSP) up to end of 2012. Section 5 will explain recent developments that could potentially influence banks' lending behavior concerning MSMEs in the near term and discuss areas for further research.

measure can be justified from a social standpoint since otherwise, banks are driven to channel funds to projects that generate high private returns but not necessarily social returns.

[9] Medalla and Ravallo (1997) also argued that until 1988, banks have taken advantage of alternative compliance in the form of special series treasury bills that masked the degree of decline in lending. When alternative compliance is accounted for, the drop in lending became very apparent.

2. FINANCING MICRO, SMALL, AND MEDIUM ENTERPRISES IN THE PHILIPPINES

2.1. Definitions

MSMEs in the Philippines are legally defined in two ways. The first definition is based on employment levels according to the National Statistics Office, while the second definition is based on asset values specified by the BSP (Table 1). According to employment-based classification, large firms are defined as those employing more than 200 workers, while micro-firms employ less than 10 workers, small firm 10 to 99 workers, and medium 100 to 199 workers. According to BSP, micro firms are those whose assets do not exceed PHP 3 million (approximately USD 70,000), while the asset limits for small and medium firms are respectively PHP 15 million and PHP 100 million (approximately USD 349,000 and USD 2.5million). Those whose assets exceed PHP 100 million are categorized as large firms. This sometimes presents a challenge when we examine data on MSMEs financing, since there exists no harmonized supply and demand-side dataset. Credit demand-side data on firms are usually based on employment clusters since these datasets are mostly compiled by the National Statistics Office. On the other hand, supply-side credit data such as total loans are typically based on asset clusters defined by the BSP since reporting banks have to follow the BSP's framework.

Table 1. Definitions of MSMEs in the Philippines

Firm Type	*NSO, Employment Level Range (number of employees)*	*BSP, Asset Size Range (P)*
Micro	1-9	<3,000,000
Small	10-99	3,000,001-15,000,000
Medium	100-199	15,000,001-100,000,000
Large	>200	>100,000,00

Note: BSP = Bangko Sentral ng Pilipinas, MSME = micro, small, and medium enterprise, NSO = National Statistics Office

Source: SMED Council Resolution No. 1 (2003); Republic Act 9501 (2008)

MSMEs comprise almost all of the total 820,255 firms in the Philippines. According to the 2011 survey data from the National Statistics Office, 90.6% were microenterprises, 8.6% small, 0.4% medium and 0.4% large (Table 2). Altogether MSMEs employ roughly 61% of the total employees in the economy. This distribution profile hardly changed in the last two decades. In spite of their enormous number, however, MSMEs only contributed 35.7% to gross domestic product (GDP) in 2011. The largest concentrations of MSMEs are found in wholesale, retail, and trade segment. Over 50% of them are located in the National Capital Region, Central Luzon (Region 3), and Calabarzon (Region 4A)—the top three regions which, as of 2012, contribute over 60% to the national GDP.[10]

[10] There are 16 regions in the Philippines.

Table 2. Profile of firms in the Philippines, 2011

	Micro	*Small*	*Medium*	*Large*	*MSME*
Number of firms	743,250	70,222	3,287	3,496	816,759
Share (%)	90.6	8.6	0.4	0.4	99.6
Employment (million)	1.78	1.64	0.45	2.47	3.87
Share (%)	28.0	25.9	7.1	39.0	61.0
Firm distribution by industry (%)					
Wholesale, retail, and trade	48.7	29.8	16.9	11.3	47.0
Manufacturing	13.6	14.3	27.4	29.3	13.7
Accommodation and food service	12.6	16.0	5.8	2.4	12.9
Others	25.1	39.9	49.9	57.0	26.5
Regional location, firm distribution (%)					
National Capital Region	24.2	43.2	45.0	46.3	26.0
Region 3	10.3	8.8	8.1	5.6	10.2
Region 4A	15.4	11.1	14.1	17.5	15.0
Others (13 regions)	50.0	36.9	32.9	30.5	48.8

Note: MSME = micro, small, and medium enterprise
Source: National Statistics Office

2.2. Sources of credit

Firms' need for additional capital is typically addressed by (i) banks; (ii) bonds market; (iii) equities market; (iv) nonbank lending institutions like quasi banks and investment houses, pawnshops, financing cooperatives, savings and loans associations, insurance companies, venture capitalists, and specialized government lending corporations; and (v) informal sector players, such as family members, friends, and unaccredited retail lenders.

Just like in many developing economies, MSMEs in the Philippines have limited access to the equities market. MSMEs accounted for a mere 0.005% of total market capitalization by end of 2012, and are also not considered reputable enough to enter the bonds market.[11] Other large scale credit sources like quasi banks, investment houses, and insurance companies typically also shy away from MSME clients while the role of venture capital firms remain quite small. Thus, given that access to formal financing is relatively scarce for MSMEs, capital options usually narrow to informal sectors, such as financing cooperatives, savings and loans associations, pawnshops, and informal sector lenders.

Assessments of credit provisions suggest that MSMEs rely on their internally generated resources to bankroll up to 78% of their operations (Table 3). In contrast, formal financial institutions only contribute somewhere between 11% and 21% of the MSMEs' funding. The lack of reliable financial information from MSMEs leads to the perception of higher risk. In addition, lower expected profitability, the absence of acceptable collateral by MSMEs, the lack of a national credit rating system for MSMEs contribute to the low loan releases from banks to the sector.

2.3. The micro, small, and medium enterprise Magna Carta

In an effort to aid MSMEs with their credit needs, the Philippine authorities enacted the Magna Carta in 1991, mandating banks to allocate 10% of their lending portfolio to MSMEs. The MSME Magna Carta also laid out a number of important supporting measures. These measures include classification of enterprises by asset size (micro, cottage, small, and medium) and laying out a coordinated structural support and safeguards system to enhance the growth of each category of enterprises.

The Magna Carta led to the creation of several government agencies across several ministries. The Small and Medium Enterprise Development Council[12] was created as an attached agency of the Department of Trade and Industry to carry out the objectives of the law and appointed the Bureau of Small and Medium Enterprises Development (BSMBD)[13] as the council secretariat. The Small Business Guarantee and Finance Corporation was set up to improve production operations and business network of firms, provide financial services to small and medium enterprises (except those involved in trading and crop-level production) and develop alternative modes of financing and guarantee loans secured by qualified SMEs. The Small Business Guarantee and Finance Corporation and the Guarantee Fund for Small and Medium Enterprises[14] were merged in November 2001 to form the Small Business Corporation (SBC) to consolidate their resources.[15] Today, the SBC and the much older Philippine Export-Import Credit Agency are presently the two main agencies charged to expand financial access for MSMEs.[16]

[11] By the end of December 2012, the declared market capitalization of SMEs in the Philippine stock exchange is P586.4 million ($14.2 million) whereas the total market capitalization is P10.9 trillion ($265.3 billion).

[12] This agency was later renamed as the Micro, Small, and Medium Enterprise Development Council (MSMEDC).

[13] This bureau was later renamed as Bureau of Micro, Small and Medium Enterprises Development (BMSMED).

[14] The Guarantee Fund for Small and Medium Enterprises was established earlier in 1984 operated by the Livelihood Corporation attached to the office of the president tasked to provide guarantee services to participating financial institutions (PFIs) that had been lending to SMEs. (ADB 2010)

[15] The agency which was put under the supervision of the central bank has a board comprised of representatives both from the private sector and the public sector, namely the National Government, Land Bank of the Philippines, Development Bank of the Philippines, Department of Trade and Industry, and Department of Finance (DOF).

[16] The Philippine Export-Import Credit Agency (PhilEXIM) was established in 1977 under the DOF to pursue the policy of the State "to encourage and promote the expansion of Philippine exports and to establish a strong and credible export credit institution, which shall be dedicated to the provision of export financing facilities and services to support the country's sector (See PhilEXIM's website). See also ADB (2005).

Table 3. SMEs' sources of funding (% of current funding)

	SERDEF-UP ISSI, 1992	WBES, 2000	ICPS-ADB, 2004	PEP-IFC, 2006	WBES, 2009[a]
Own resources	78	52	60	69	76.4
Bank loans	15	21	11	19	10.2
Nonbank financial institution					0.9
Informal credit[b]	7	27	29	12	12.4
Total	100	100	100	100	100

Note: ICPS-ADB = Investment Climate and Productivity Study, Asian Development Bank, PEP-IFC = Private Enterprise Partnership for the Philippines (PEP-Philippines) SME Financing Survey, International Finance Corporation, SERDEF-UP ISSI = Small Enterprise Research and Development Foundation-University of the Philippines Institute for Small Scale Industries; SME = small and medium enterprise, WBES = World Bank Enterprise Survey; [a] Shares in the firms' working capital; [b] Purchases on credit from suppliers/advances from customers + loans from moneylenders, friends, and relatives

Source: Nangia and Villancourt 2007; WBES 2009

These agencies unified and simplified business procedures and requirements, making government services readily available to businesses outside the centers of commerce and “incentivizing” financing to the MSMEs. The latter include both monetary and nonmonetary incentives, as well as directing public government banks (which at that time including the Philippine National Bank, the Development Bank of the Philippines and the Land Bank of the Philippines) to provide financing assistance to MSME entrepreneurs.

The Magna Carta was amended twice in 1997 and 2002 (RA 6977 amended by RA 8289 and RA 9501) to adjust the legislation to firms’ needs and changing economic conditions. Most importantly, the thresholds for asset-based enterprise classification were significantly adjusted in these two revisions. The thresholds for micro and medium firms changed the most, approximately tripling between 1991 and 1997, and roughly doubling between 1997 and 2002 (Table 4). These variations would prove to be very important to banks in their compliance to the mandated lending provision of the law. The increased thresholds mean that their target market for MSMEs had also increased in size.

In addition, the coverage of the law and the mandated share of MSMEs bank lending have also changed over the years (Table 5). In 1991, the initial mandated share of bank lending to small firms was 5% of total bank lending. This was doubled in 1992 to 10%, and then reduced to 5% again in 1996. The 1997 revision recognized that medium firms are fundamentally different from smaller firms, and established of two separate compliance rates for medium and smaller firms: for the next ten years, Philippines banks were mandated to set 6% of their total loan portfolio to small firms and another 2% to medium firms. In the 2008 revision, the law was extended to cover microenterprises, and mandated all banks to allocate 2% of their total loan portfolio to medium firms, and a further 8% to micro and small firms.

Table 4. Evolution of asset-based definition of MSMEs

Law/ regulation	Year enacted	Micro	Cottage	Small (P)	Medium	Large
RA 6977	1991	<50,000	50,001–500,000	500,001–5,000,000	5,000,001–20,000,000	>20,000,000
RA 8289	1997	<1,500,001		1,500,001–15,000,000	15,000,001–60,000,000	>60,000,000
SMED Council[a] and RA 9501	2003 2008	<3,000,000		3,000,001–15,000,000	15,000,001–100,000,000	>100,000,00

Note: MSME = micro, small, and medium enterprise; RA = Republic Act; SMED = Small and Medium Enterprise Development; [a] Refers to SMED Council Resolution No. 1 (2003)

Table 5. Mandatory share of MSME in banks’ loan portfolio

Law	Year Enacted	Coverage (enterprises)	Share in Banks’ Loan Portfolio (years in effect)
RA 6977	1991	Small	5% (1991); 10% (1992–1995); 5% (1996); 0% (1997)
RA 8289	1997	Small and medium	Small: 6% (1997–2007)[a] Medium: 2% (1997–2007)
RA 9501; BSP Circular 625 (2008)	2008	Micro, small, and medium	Micro and Small: 8% (2008–2018) Medium: 2% (2008–2018)[a]

Note: BSP = Bangko Sentral ng Pilipinas; RA = Republic Act;[a] RA 8289 should have ended in May 2007 but implementation of the lending provision was extended until early December 2008 (BSP Circular Letter 2007-039) because the BSP issued circular 625-2008 pursuant to RA 9501 only on 14 October 2008, which became effective 15 days after it was published on 20 October 2008

Firms considered eligible to be covered by the law have to satisfy the following four conditions. First, firms need to be registered with the appropriate agencies as presently provided by law. Second, firms should be fully (100%) owned, capitalized by Filipino citizens, whether single proprietorship or partnership. If the enterprise is a juridical entity, at least 60% of its capital or outstanding stocks must be owned by Filipino citizens. Third, firms should be participating in a business activity within the major sectors of the economy, namely, industry, trade, services, including the practice of one’s profession, the operation of tourism-related establishments, and agribusiness. Lastly, eligible firms are those that are not a branch, subsidiary or division of larger scale enterprises.

2.4. Other initiatives to encourage lending to micro, small, and medium enterprises

To keep bank funds flowing steadily to the MSME sector, the BSP also instituted a number of measures to compensate lending institutions for the burden brought about by the Magna Carta. These include:

- Allowing the establishment of microfinance-oriented thrift banks and rural banks as an exemption from branching moratorium;
- Exemption of microfinance loans from normal documentation applicable to regular bank loans;
- Reduction of the reserve requirements on thrift banks and rural banks which deal with SMEs and small borrowers;
- Reduction of the risk weight applicable to qualified SMEs and microfinance loan portfolios from 100% to 75% subject to certain conditions, such as performance and financial soundness of the bank and adequacy of risk management system;
- Exemption of SME loans without latest income tax returns and/or audited financial statements from "Loans Especially Mentioned" classification provided said loans are current, have not been restructured, and are supported by income tax return and/or audited financial statement at the time they were granted;
- Deferment, for a period of 1 year, of the implementation of the market-based pricing mechanism for rediscount loans below the 91-day Treasury bill rate to help jumpstart SME lending; and
- Approval of the 12-point accreditation guidelines for rural and thrift banks and the lending features of short- and long-term loans for direct or retail lending by participating government financial institutions under the SME Unified Lending Opportunities for National Growth (SULONG).

The government also tried to increase the appeal of banking MSMEs, such as (i) establishing an effective loan guarantee system, (ii) finding ways to deal with collateral requirement issues, (iii) creating a public credit bureau, (iv) developing more appropriate ways to assess risk associated with lending to SMEs, and (v) optimizing the network of state-owned firms in delivering services to SMEs.

In order to alleviate information gaps, one important solution considered by both regulators and financial institutions is the creation of a reliable credit scoring system to assess the credit viability of firms that can be used by the entire banking system. Notably, according to ADB report (2004), "SBC's management has discovered (as have many other lenders in many places) that there is no clear correlation between the kind and quality of collateral offered to a lender and loan default. This implies that loan underwriting techniques that do not rely on traditional collateral are highly relevant in the Philippines."

To further strengthen its overall approach to facilitate financing for SMEs, the government implemented the SME Unified Lending Opportunities for National Growth (SULONG) program. The SULONG program, launched in 2003, essentially sought to provide SMEs alternative credit sources through participating government financial institutions.[17] The general objectives of the program were to: (i) simplify and standardize the lending procedures, (ii) reduce documentary requirements and expedite procedures, (iii) provide SMEs greater access to short- and long-term funds, and (iv) lower the effective cost of borrowing by SMEs and liberalize the requirement.

More recently, the BSP rolled out the Credit Surety Fund program on 2 July 2008. The rationale of this fund is "to increase the credit worthiness of MSMEs that are experiencing difficulty in obtaining loans from banks due to lack of acceptable collaterals, credit knowledge and credit track records" (BSP 2013b). Essentially, the Credit Surety Fund can serve as: (i) an alternative to acceptable collaterals, (ii) security for loans of MSMEs that are members of a cooperative, and (iii) an assurance for payment of bank loans. Investors in the fund are comprised of cooperatives, nongovernment organizations, local government units, banks, donors, and the BSP. Eligible borrowers include MSMEs who are members of cooperatives and who have businesses that meet certain conditions (BSP 2013c).

2.5. The structure of the banking industry in the Philippines

The banking industry in the Philippines forms the core of the financial system in the Philippines. Banks hold 80% of the approximately P10 trillion of total domestic financial assets as of end of 2012.[18] Nonbanks, which include investment houses and companies, among others, accounted for the remaining 20%. For the last 3 decades, this distribution hardly changed despite a fivefold growth in total financial assets from 1990 to 2000, and another 2.5-fold growth from 2000 to 2012 (Table 6).

Overall, banks in the Philippines are supervised by the BSP as prescribed by the General Banking Law passed in 2000. The law also classified banks in the Philippines as universal banks, commercial banks, thrift banks, rural and cooperative banks, or Islamic banks. The Monetary Board, which is the decision-making body of the central bank, may also create another type of bank if the need arises. The minimum capitalizations are highest for universal banks (P4.95 billion), followed by commercial banks (P2.4 billion), thrift banks (P1 billion for those headquartered in Manila and P250 million for others). The minimum capital requirement for rural banks and cooperatives are much lower, ranging from P100 million for those headquartered in Manila to below P5 million for those based in rural 5th–6th class municipalities. In our subsequent analysis, we group all these institutions into three broad groups: universal and commercial banks (UKBs), thrift banks (THBs or thrifts), and rural and cooperative banks (RCBs or rural co-ops). The average UKB has approximately 20 times the assets of the average thrift bank, which in turn has average total assets 20 times the average rural and cooperative banks.

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[17] These include the Development Bank of the Philippines, Land Bank of the Philippines, Small Business Guarantee Corporation, and the Social Security System.

[18] This is approximately equivalent of $250.4 billion, based on the exchange rate of P42 per US dollar.

Table 6. Total resources of the Philippine financial system (PHP, billion)

Year	Total	UKB[a]	THB[b]	RCB	Total Banks	Nonbanks[c]
1970	18.8	17.2	0.9	0.7	18.8	
1980	248.1	172.6	10.6	5.6	188.8	59.3
1990	800.2	558.2	37.6	13.9	609.7	190.5
2000	4,077.9	3,013.6	245.8	67.4	3,326.7	751.1
2010	9,046.3	6,423.7	626.4	180.1	7,230.2	1,816.1
2012	10,516.2	7,486.7	681.6	190.1	8,358.3	2,157.8

Note: RCB = rural and cooperative bank, THB = thrift bank, UKB = universal and commercial bank; [a] Includes specialized government banks; [b] Includes savings and mortgage banks, private development banks, and stock savings and loan associations; [c] Includes investment houses, finance companies, investment companies, securities dealers/brokers, pawnshops, lending investors, nonstock savings and loan associations., venture capital corporations, credit card companies, which are under BSP supervision, and private and government insurance companies (e.g., Social Security System and Government Service Insurance System)

Source: Bangko Sentral ng Pilipinas

As of end of 2012, there were a total of 696 banks in the Philippines, of which 36 are UKBs, 70 are THBs, 589 are RCBs, and 1 Islamic Bank (which is also classified by the BSP as a UKB). Although universal and commercial banks were the least numerous out of the three broad banking classifications, they have the most extensive branch networks and hold the biggest proportion of banking resources (e.g., asset, loans, deposits, and capital). All of the 37 UKBs accounted altogether for 89.4% of total banking assets, 86.3% of total loans, 88.6% of total deposits, as well as 54.7% of total bank offices around the country. Within this UKB group, there was also a huge dispersion in terms of resources: the biggest 10 UKBs housed 74.4% of the segment's assets, release 74.3% of the segment's loans, handle 71.9% of the segment's deposits, and operate 83.7% of all the segment's offices. In other words, two-thirds of the Philippines' total financial assets and loans were concentrated in the top 10 universal and commercial banks in the country.

Compared to the universal and commercial banks, the other banking institutions in the Philippines were comparatively much smaller. Rural and cooperative banks, which accounted for 84.6% of all banking institutions (589 institutions out of 696 total in 2012), only accounted for 2.4% banking sector's value, 3% of total lending, 2.2% of total deposits while running just 28.1% of all the banking counters nationwide. Thrift banks, which were represented by 70 institutions, hold only 8.3% of the sector's total assets, disburse 10.7% of total loans, and manage 9.2% deposits through their 1,619 bank offices (17.2% of total) (Table 7).

Table 7. Financial indicators and bank network (units) by bank type, Philippines, 2012

Level (PHP billion)	Assets	Loans	Deposits	Capital	Head Office	Branches	Total Offices
UKB[a]	7,193.8	3,617.2	5,097.5	937.1	37	5,108	5,145
of which: Top 10	5,350.2	2,686.6	3,931.1	673.6	10	4,297	4,307
THB	666.2	446.6	529.8	81.1	70	1,549	1,619
RCB	189.7	127.5	126.4	33.3	589	2,057	2,646
Total	8,049.7	4,191.3	5,753.6	1,051.5	696	8,714	9,410
Distribution (%)							
UKB	89.4	86.3	88.6	89.1	5.3	58.6	54.7
of which: Top 10							
% of UKB	*74.4*	*74.3*	*77.1*	*71.9*	*27.0*	*84.1*	*83.7*
% of Total	*66.5*	*64.1*	*68.3*	*64.1*	*1.4*	*49.3*	*45.8*
THB	8.3	10.7	9.2	7.7	10.1	17.8	17.2
RCB	2.4	3.0	2.2	3.2	84.6	23.6	28.1

Note: RCB = rural and cooperative bank, THB = thrift bank, UKB = universal and commercial bank; [a] Al-Amanah Islamic Investment Bank of the Philippines is subsumed under UKB (per BSP directory of Banks)

Source: Bangko Sentral ng Pilipinas; Annual Reports and Press Releases of the top 10 banks (by asset size) for the number of branches

Each category of banks operated in generally distinct markets, though the market niches are starting to overlap. Rural and cooperative banks typically focused on retail clients and microloans in the countryside. The universal and commercial banks, on the other hand, serve as the primary arteries of credit for larger urban firms and are usually part of a bigger conglomerate groups themselves. Lastly, the thrift banks, some of which were large enough to compete with universal and commercial banks for big borrowers, normally focus on small and medium enterprises in metropolitan and provincial business centers left unaddressed by the UKBs. It is also important to note that a number of major thrift banks are likewise either affiliates of UKBs or financial arms of big holding companies.

3. COMPLIANCE TO THE MICRO, SMALL, AND MEDIUM ENTERPRISE MAGNA CARTA

3.1. Direct compliance

The most important part of the MSME Magna Carta is the legal mandate for mandatory credit allocation that all lending institutions have to set aside 8% of their total loan portfolio for micro and small enterprises (MSEs), and a further 2% for medium enterprises (MEs). The BSP allows banks various channels to comply with the mandatory credit

allocation for MSMEs. Basically, these can be divided into two categories namely, the direct compliance and the indirect compliance. As stipulated in BSP Circular 625 issued in 2008, ways to comply directly are enumerated below, and vary across the targeted firm size.

For micro and small enterprises:

- Actual extension of loans to eligible MSEs, other than to Barangay Microbusiness Enterprises (BMBEs) which are covered in Item "c(3)" hereof:[19] Provided, however, that loans granted to MSEs other than BMBEs, to the extent funded by wholesale lending of, or rediscounted with, another bank shall not be eligible as compliance with the mandatory credit allocation; or
- Loans granted to export, import, and domestic micro and small scale traders, other than to BMBEs which are covered in Item "c(3)" hereof: Provided, however, that loans granted to MSEs other than BMBEs, to the extent funded by wholesale lending of, or rediscounted with, another bank shall not be eligible as compliance with the mandatory credit allocation; or
- Purchase of eligible MSE loans listed in Items "i" and "ii" of this list on a "without recourse" basis from other banks and financial institutions; or
- Purchase/discount on a "with or without recourse" basis of MSE receivables, other than BMBE receivables which are covered in Item "c(3)" hereof; or
- Wholesale lending or rediscounting facility granted to participating financial institutions (PFIs) for on-lending to MSEs, other than to BMBEs which are covered in Item "c(3)" hereof; or
- Wholesale lending or rediscounting facility granted to PFIs for on-lending to export, import, and domestic micro and small scale traders, other than to BMBEs which are covered in Item "c(3)" hereof; or
- Commercial letters of credit outstanding, net of margin deposits, issued for the account of MSEs.

For medium enterprises:

- Actual extension of loans to eligible MEs provided that loans grantedf to MEs to the extent funded by wholesale lending of, or rediscounted with, another bank shall not be eligible as compliance with the mandatory credit allocation; or
- Loans granted to export, import, and domestic medium scale traders provided that loans granted to MEs to the extent funded by wholesale lending of, or rediscounted with, another bank shall not be eligible as compliance with the mandatory credit allocation; or
- Purchase of eligible ME loans listed in items "i" and "ii" of this list on a "without recourse" basis from other banks and financial institutions; or
- Purchase/discount on a "with or without recourse" basis of ME receivables; or
- Wholesale lending or rediscounting facility granted to PFIs for on-lending to MEs; or
- Wholesale lending or rediscounting facility granted to PFIs for on-lending to export, import, and domestic medium scale traders; or
- Commercial letters of credit outstanding, net of margin deposits, issued for the account of MEs.

3.2. Alternative compliance

Acknowledging the difficulty and the risks of lending to fledgling enterprises early on, the government has established a set of alternative vehicles in order to comply with the MSME lending provisions of the Magna Carta.

Alternative compliance for either or both MSEs or/and MEs are allowed on the following grounds: first through paid subscription or purchase of liability instruments offered by the SBC, through paid subscription of preferred shares of stock of the SBC, or through loans (irrespective of sources) granted to Barangay Microbusiness Enterprises.[20]

Earlier, banks can also set aside special accounts consisting of cash or "due from BSP" for MSMEs which are free, unencumbered, not hypothecated, not utilized or earmarked for other purposes and include the corresponding amounts to their compliance reports as per BSP Circular 147 (1997). But this was no longer included as a mode of compliance under the new Magna Carta (RA 9501) beginning from 2008.

Another interesting feature of the law is the provision for aggregated group compliance. BSP Circular 625 (2008) states that "banks may be allowed to report compliance on a groupwide (i.e., consolidation of parent and subsidiary bank/s) basis so that excess compliance of any bank in the group can be used as compliance for any deficient bank in the group on the following conditions: (a) provided that the subsidiary bank/s is/are at least majority-owned by the parent bank and (b) provided further that the parent bank shall be held responsible for the compliance of the group."

3.3. Penalty for noncompliance

In case of non-compliance, the current penalty is relatively lenient compared with the previous versions of *Magna Carta* law. Under initial versions of the law, non-compliant banks are fined by an amount no less than P500,000 and other officers of the erring lending institutions shall be individually liable for imprisonment of not less than 6 months. The subsequent revision of the law in 1997 extended the loan earmarking program for SMEs to 2007, and dropped imprisonment provision while maintaining the monetary fine (Table 5).

The monetary penalty for noncompliance varied according to bank types though the amount was miniscule compared to the average banking assets of these institutions. Based on the most recent revision in 2008, banks were mandated to allocate 2% of their loan portfolio to medium enterprises, and 8% to micro and small enterprises. Yet banks were fined a mere $2,300 for every percentage point that the banks failed to meet the stipulated medium enterprises loan share, and a mere $9,300 for every percentage point below the stipulated micro and small enterprises share of the banks' loan portfolio. The penalty for other non-

[19] Item c(3) under subsection X342.3 (Eligible credit exposures) of the BSP Manual of Regulations for Bank (MORB) 2008 stipulates the mechanisms considered as "Alternative compliance for either or both MSEs or/and MEs." The provision classifies "Loans from whatever sources granted to BMBEs as provided under Subsection X365.5" as a form of alternative compliance. Section 365 of MORB 2008 covers regulations concerning "Loans to Barangay Micro Business Enterprises" while subsection X365.5 pertains to the "Incentives to participating financial institutions."

[20] See BSP No. 625 dated 14 October 2008. Subsection X365.5 of circular explains fully the details of this item.

compliant reporting behaviors was even smaller—the daily fines for the delay in submitting compliant reports range from a mere $2 for rural and cooperative banks to $28 for universal and commercial banks (Table 8).

Table 8. Penalty matrix

Item	*PHP*	*$ equivalent*
Zero compliance	500,000	11,628
Undercompliance, end of each quarter:		
Micro and small enterprises	% of undercompliance* (P400,000)	* (9,302)
Medium enterprises	% of undercompliance* (P100,000)	* (2,326)
Willful false statements to the BSP	P500,000 per quarter-end	
Nonsubmission/delayed submission of reports on compliance (per calendar day of delay)		
Universal and commercial banks (UKBs)	1,200	27.9
Thrift banks (THBs)	600	14.0
Rural and cooperative banks (RCBs)	80	1.9

Source: Republic Act 9501

4. ASSESSING BANK COMPLIANCE TO THE MICRO, SMALL, AND MEDIUM ENTERPRISE MAGNA CARTA

Given the low levels of legal penalty stipulated for non-compliance with the MSME Magna Carta, we assessed actual bank compliance to the law. This section intends to shed light on the levels and trends of bank lending to MSMEs in the Philippines and to assess banks' compliance to the Magna Carta. We proceed in two steps. First we provide an industry-level analysis, which examines the overall aggregate MSMEs lending activity of banks as a group. Second we use bank-level data to analyze patterns of compliance to the Magna Carta for MSMEs by individual universal and commercial banks, and thrift banks.

4.1. Data sources

For the industry aggregate-level analysis, we used the data on banking industry's lending to MSMEs provided by the BSP. The data series present information about the compliance to the Magna Carta for MSMEs of the three major bank types (UKBs, thrifts, and rural co-ops) covering the years from 1999 to 2010. Moreover, the data show the disaggregation of the MSME compliance to the Magna Carta according to type of compliance; in other words, we know whether the banks complied through direct compliance, indirect compliance, or "funds set aside for MSMEs."[21] However, as mentioned earlier, funds set aside for MSMEs are no longer considered as mode of compliance beginning 2008.

To assess compliance at the bank-level, we compiled a comprehensive panel dataset from the Published Statements of Condition of each lending institution posted on the BSP's website. The data series covers periods from the first quarter of 2005 to the second quarter of 2011 but limited to UKBs and thrifts because the BSP does not post the compliance information for individual rural co-ops. While these published statements comprised the most complete data publicly available on the compliance patterns of financial institutions, we note two caveats pertaining to the quality of data. Firstly, the format of the compliance ratios in these published statements (i.e., whether in percentage or absolute terms) is not consistent across reports. Thus, caution was exercised in building the panel dataset of compliance ratios. Secondly, a number of banks do not report their Magna Carta compliance ratios in some of their public statements. Hence, we distinguished zero lending to MSMEs from absence of data. Nevertheless, our post-cleaning final sample with complete data consists of 109 financial institutions (out of an initial sample of 136), which altogether represented over 90% of the finance sector assets in the Philippines.

4.2. Descriptive statistics of aggregate lending

The outstanding amount lent by all lending institutions to MSMEs increased modestly from 1990 to 2010 (Figure 1). Financing to MSMEs rose from P248.2 billion to P308.5 billion in those 12 years, representing a growth rate of 2.3% per year. UKBs provide the bulk of these bank loans. Although their share decreased from 83.7% in 1999, they still accounted for 72.9% of the total loans in 2010. Thrifts, on the other hand, saw their share of MSME lending rising from 13% in 1999 to 19.8% in 2010. The strongest growth in market share is observed for rural co-ops, which tripled their share of MSME financing from below 3.3% to12.6% in 2009, before retreating to just above 7.3% by the end of 2010.

The decline in commercial banks' market share is partially a result of tepid growth in their overall lending operations between 1999 and 2010, which saw a compounded annual growth rate of only 0.72%. Thrifts expanded their loans to MSMEs by over 7% annually during the 11-year span. Rural co-ops were even more aggressive in lending to MSMEs, growing their MSME portfolio by 20% annually until 2008 until a pullback beginning in 2009. In 2009, total MSME lending by rural co-ops declined by 1.4%, and then contracted sharply in 2010 by 41.9%.[22]

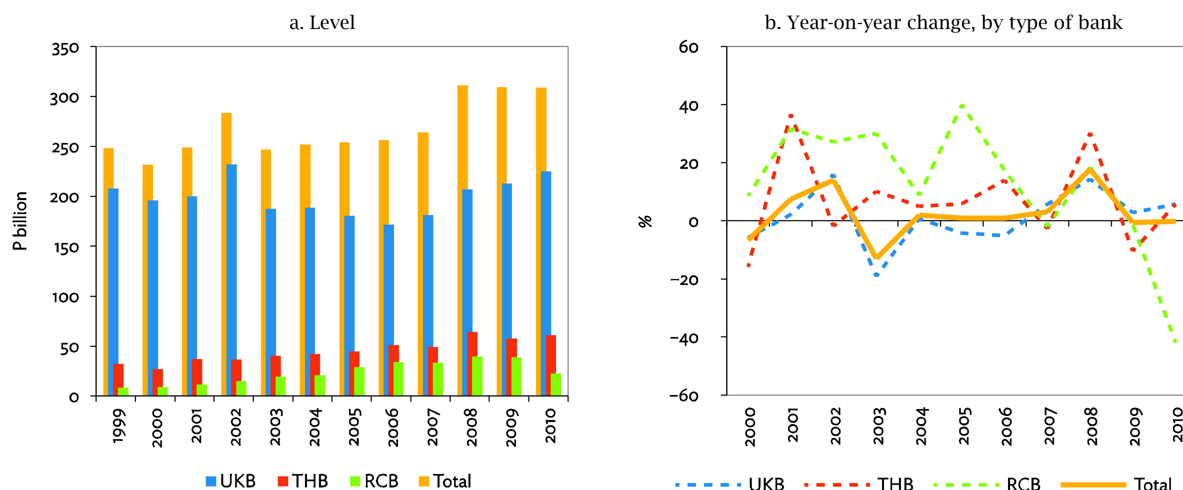
The aggregate data reveals two important trends. Firstly, despite the increase in total lending volume, the share of MSMEs in the banking sector's lending portfolio has declined significantly since

[21] The "funds set aside for MSMEs" is defined by the BSP (as indicated in the data file) as the item consisting of either Cash on Hand and Due from BSP which are free, unencumbered, not hypothecated, not utilized or earmarked for other purposes. The Due from BSP is a special account deposited with the BSP and does not form part of the bank's legal reserves. Under the new mandatory credit allocation (RA 9501).

[22] The compounded annual growth rate of MSME lending for thrifts was 6%. In contrast, the compounded annual growth rate for rural co-ops was 19.3% from 1998 to 2008, and compounded annual growth from 1998 to 2010 fell to 9.8%.

2002. Secondly, despite the decreasing share in MSME loans, aggregate lending to the MSME sector still far exceeds the explicit 10% goal of the Magna Carta. At the peak in 2002, MSMEs accounted for 30% of the total loan portfolio of all lending institutions. This declined to 16.4% in 2010 (Figure 2). The reduction in banks' MSME exposure is common across banking groups. Thrifts have started moving away from the MSME market in 2000. The UKBs followed a similar track in 2002. And even the rural co-ops began expanding more in non-MSME market in 2006.

Figure 1. Bank lending to MSMEs



Note: MSME = micro, small, and medium enterprise; RCB = rural and cooperative bank; THB = thrift bank; UKB = universal and commercial bank

Source: Bangko Sentral ng Pilipinas

It is important to point out that despite the decline, lending to medium firms in 2010 was more than 300% above the Magna Carta target of 2%, while that for micro and small firms were closer to the targeted 8% of total bank lending. Not so surprisingly, the reduction affected smaller firms more than medium firms (Figure 2). What is intriguing is that in 2010, the bank lending to medium firms, despite declining from a peak of 12.6% of all loans, was still more than threefold of the relevant Magna Carta target. Meanwhile, lending to the micro and small segment was closer to the mandatory requirement of 8%. This is mainly driven by the continuous decline of UKB lending to medium-sized enterprises—which in itself is already 1.4 percentage points below the legal requirement in 2010. Thrifts and rural co-ops, on the other hand, still keep their ratios above what is mandated by the Magna Carta but the pace at which these ratios are decreasing raises the question of the future trends for loans to micro and small firms. These trends imply that although absolute levels of lending to MSMEs are rising, the growth rates of lending to the said target sectors are consistently slower than the growth of bank lending to other sectors.

4.3. Direct compliance versus alternative compliance

As we can see from Figure 3, banks favored direct compliance since 1999 and even more so since 2008. Data provided by the central bank indicate that banks have actually reduced exposure to other facilities and instead increased direct lending operations since 2008 to almost 100% of their lending to MSMEs. The lack of attractiveness of the yields of alternative notes appears to be one of the key issues.[23] SBC's wholesale lending also took a hit during the height of the global financial crisis when the central bank expanded and reduced the interest rate of its re-discounting facility to keep the banking system liquid, which directly competed with SBC's wholesale lending operations (ADB 2010).

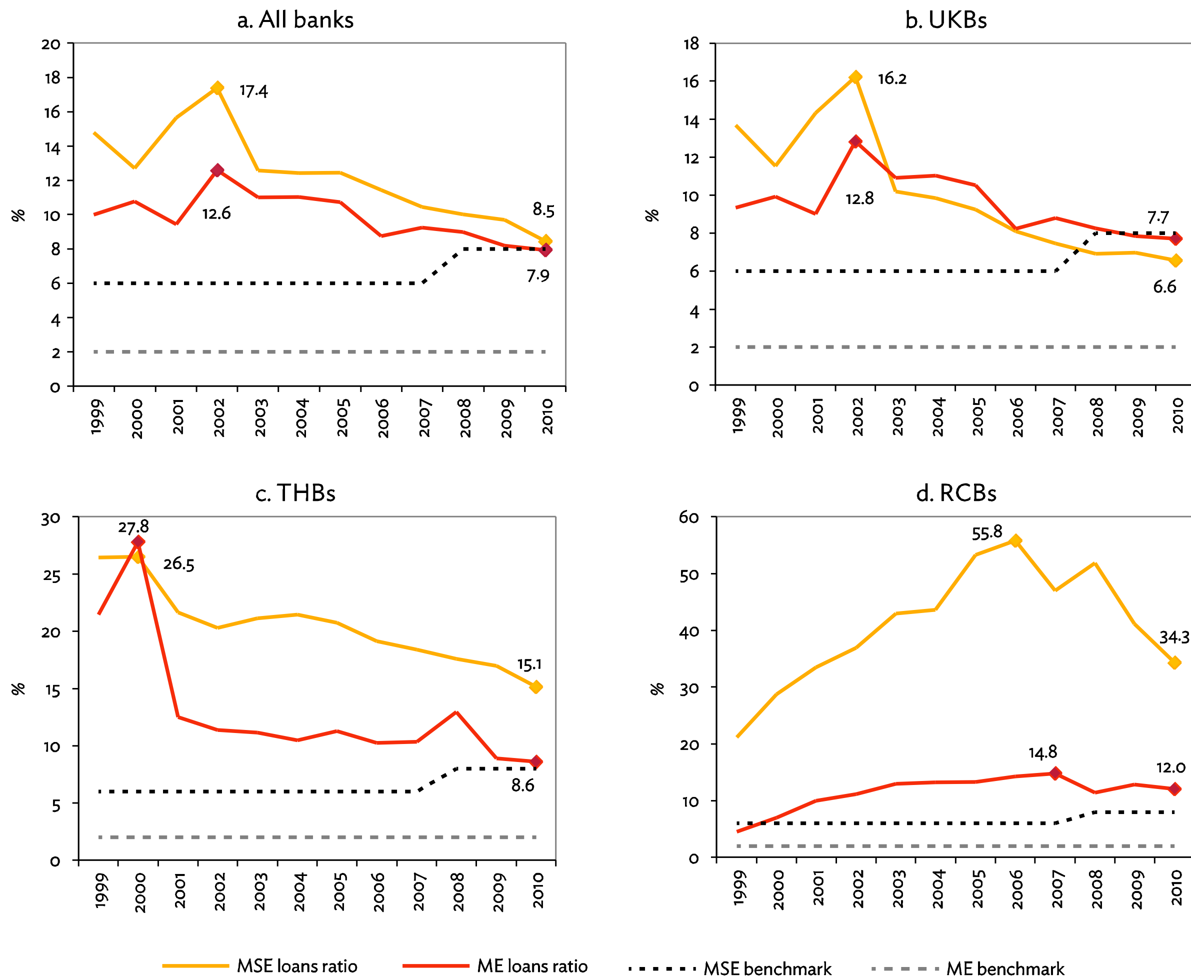
In response, the SBC, through Memorandum No. 6 (2011), has decided to narrow the spread of its notes against the benchmark secondary bond rate (PDST-F) from 33% of the yields of the corresponding reference fixed-income notes (1 year and 6 months) to 20%.[24] SBC also issued preferred shares worth P1.6 billion at P100 per share (minimum of 2,000 shares) to further boost its capital. Notably, the ADB loan granted to SBC has been the corporation's biggest infusion of rolling capital between 2000 and 2010. In 2005 the loan accounted for 11% of the corporation's total lending in 2006, 51% in 2007, 61% in 2008, and 76% in the first half of 2009 (ADB 2010).

4.4. Bank-level data and descriptive statistics

This section examines individual bank compliance to the Magna Carta for MSMEs, using comprehensive panel data that we have compiled. This is, as far as we are aware, the first panel data and analysis on this question. Data on these individual lending institutions were available quarterly from 2005 to 2011, and did not cover rural and cooperative banks.

[23] Lamberte (2002) observes that alternative modes of compliance like SBC notes "do not pay market rates" while deposits with the central bank allotted for SMEs do not bear interest.
[24] This secondary bond rate is also referred to as the Money Market Association of the Philippines (MART 1) benchmark rate.

Figure 2. Bank lending to MSMEs, by type of bank (% of loan portfolio)



Note: ME = medium enterprise; MSE = micro and small enterprise; MSME = micro, small, and medium enterprise; RCB = rural and cooperative bank; THB = thrift bank; UKB = universal and commercial bank; Total loan portfolio is net of certain exclusions per BSP Circular 625 (2008)

Source: Bangko Sentral ng Pilipinas

4.4.1. General trends of direct compliance

Data from individual lending institutions reveals significant heterogeneity in the direct compliance of various lending institutions to the law. In particular, there was a decrease in direct compliance amongst universal and commercial banks beginning in the late 2007. Based on the data, approximately 33% of all the UKBs reporting data to the BSP were lending less than 8% of their total loan to micro and small enterprises by 2011. Another 10% of all UKBs also did not meet the 2% of loan portfolio mandatory lending requirement to medium enterprises (Figure 4).

This was a stark contrast to the earlier years, when direct compliance was much stronger. In 2005, non-compliant UKBs were only about 5% (small) and 5.3% (medium) of the group. Moreover, about a quarter of the supervised banks did not indicate their MSME lending ratios in their reports. Approximately three quarters of these banks with no data are foreign-owned. Based on the available information on loan portfolios of foreign-owned banks, it is possible that the actual noncompliance among UKBs could exceed 60% for micro and small, and around 25% for medium enterprises.[25]

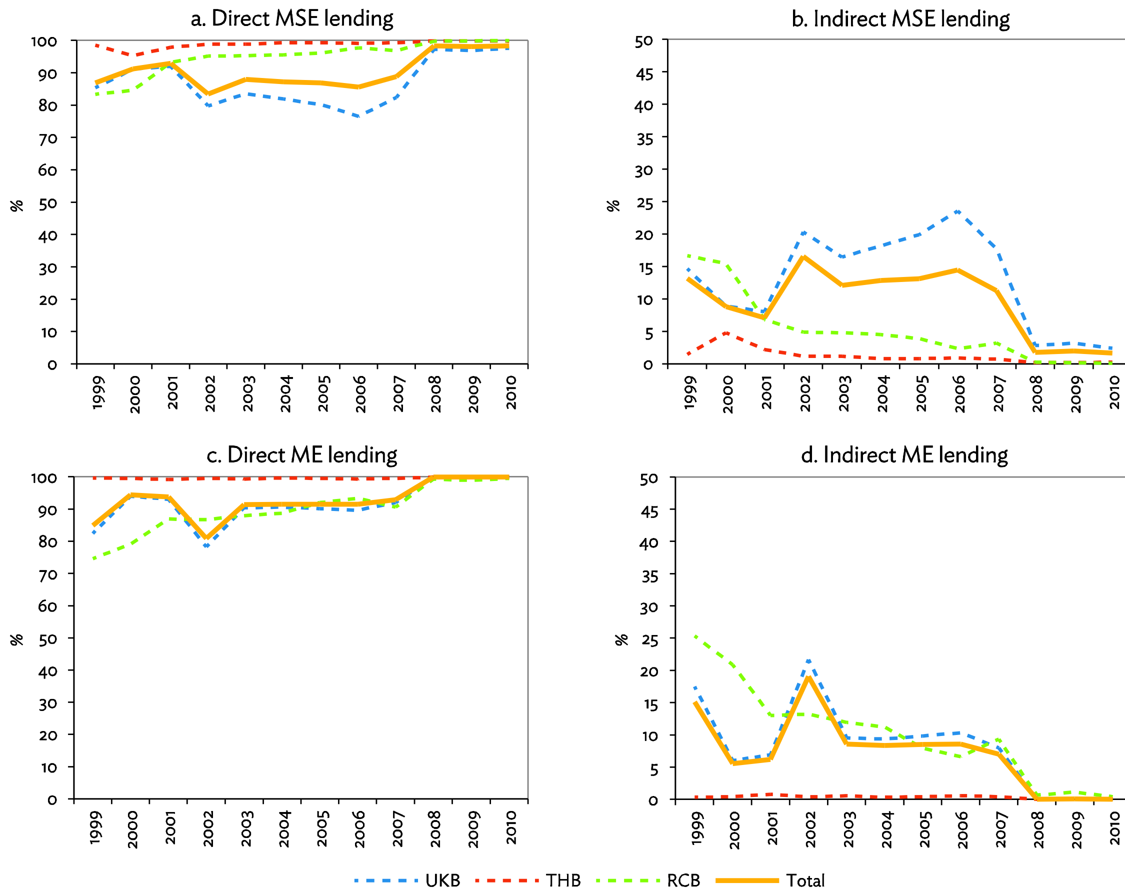
One of the reasons the sharp decrease in direct compliance could be the increase in the mandated MSME loan share from 6% to 8% following the revision of the law in 2008. It is possible that many UKBs found it challenging to increase their loans to micro and small enterprises by another 2 percentage points when the regulation was altered. Even though microenterprises were added into the equation, this proved to be of little value to them since microenterprises were not the focus of most UKBs. Unfortunately the data does not disaggregate loans to small and microenterprises. As for UKBs' declining share of loans to medium firms, one potential explanation could be the uncertainties of the economic conditions that affected the country's external position following the global financial crisis of 2008.

On the other hand, direct compliance among thrift banks has increased from 86% in 2005 to almost 97% as of the first quarter of 2011 (Figure 5). Although it appears that the revision in the Magna Carta

[25] In a separate study, SBC also estimated that 60% of UKBs are not complying with the mandated MSE portfolio while 32% of UKBs are not complying with the mandated ME portfolio (See Lagua 2011).

compounded by the sudden downturn in the general business climate has affected the UKBs lending to MSMEs adversely, these factors seem to have muted effect on thrift banks. Perhaps, the policy change may have even benefited them since thrift banks have better access to microenterprises than the universal banks. Hence, the inclusion of microenterprises in the mandated lending requirement has most likely allowed some of these thrift banks that are formerly below the benchmark to meet the legal requirement in spite of the 2 percentage point increase in the legal threshold.

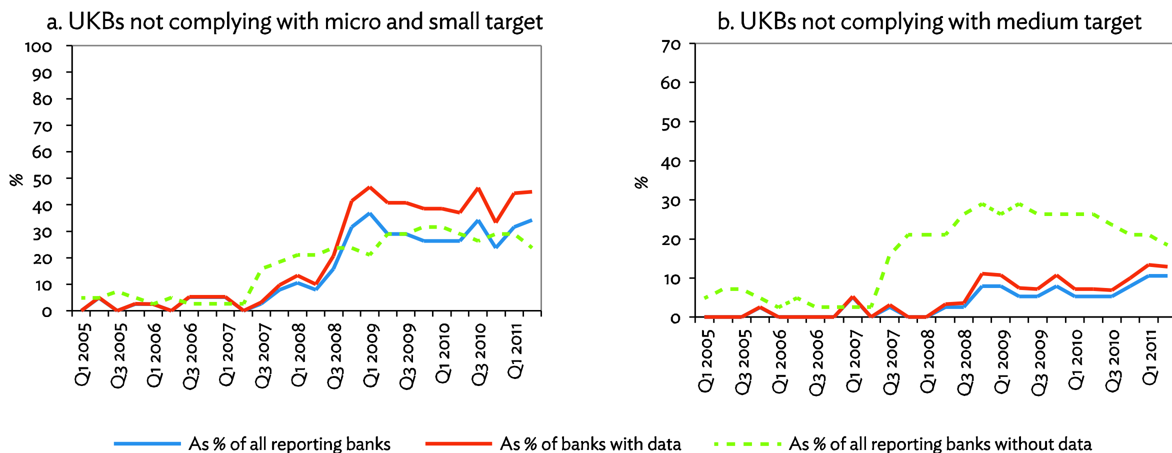
Figure 3. Distribution of direct and indirect lending to MSMEs, by type of bank (% of total compliance)



Note: ME = medium enterprise; MSE = micro and small enterprise; MSME = micro, small, and medium enterprise; RCB = rural and cooperative bank; THB = thrift bank; UKB = universal and commercial bank; Indirect compliance includes "Funds Set Aside for MSMEs" for the years 1999-2007

Source: Bangko Sentral ng Pilipinas

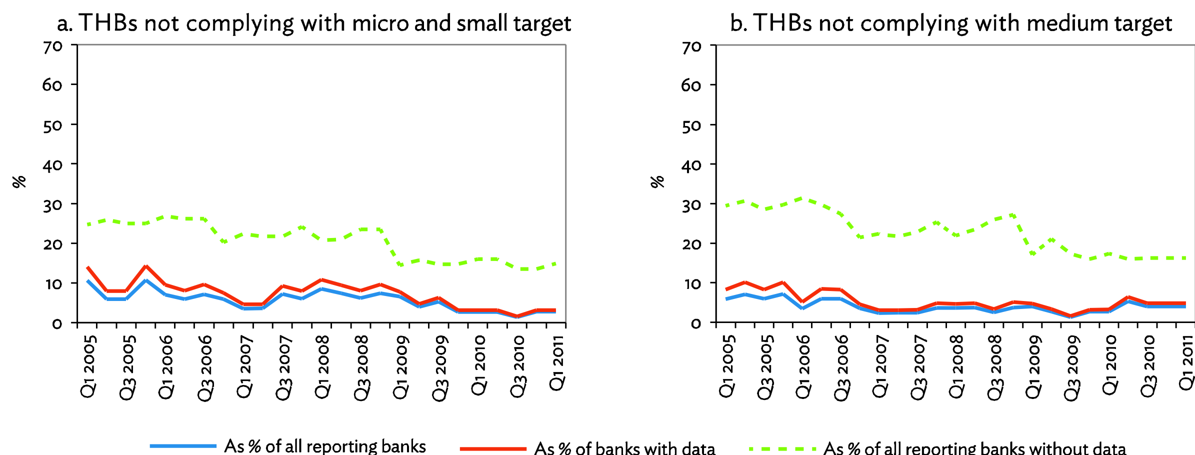
Figure 4. Share of UKBs not directly complying with the Magna Carta



Note: UKB = universal and commercial bank; Lending to small enterprises mandated by law was increased from 6% to 8% of total portfolio starting in 2008

Source: Author's calculation using BSP data (published statements of conditions)

Figure 5. Share of THBs not directly complying with the Magna Carta



Note: THB = thrift bank; Lending to small enterprises mandated by law was increased from 6% to 8% of total portfolio starting Q4 2008

Source: Author's calculation using BSP data (published statements of conditions)

4.4.2. Robustness of direct compliance from 2005 to 2010

Just as the aggregated data has highlighted, the average loan shares of both micro and small enterprises and medium enterprises were far higher than the legal targets of 6% and 2% respectively (Table 9). On average, the banks in this truncated sample increased the share of micro and small enterprises loans within their portfolio from an average of 15.8% in 2005 to 17.5% in 2010. Thus the average lending institution (out of 130) was lending 3 times the targeted share for small and medium enterprises. However, loans to medium firms were only slightly higher than targeted: in 2010, the average bank lent 10% of their portfolio to medium firms.

Table 9. Summary statistics of MSME lending, 2005-2010

	2005	*2006*	*2007*	*2008*	*2009*	*2010*	*All*
	% of loans to micro and small: Whole sample						
Mean	15.8	16.07	17.31	16.51	15.79	17.49	16.64
Std Dev	14.44	15.29	16.73	14.99	14.8	15.6	25.34
Min	0.95	0.59	1	0.77	0.55	1.12	0.55
Max	87.99	75.57	84.56	87	88.31	88.18	88.31
	% of loans to medium: Whole sample						
Mean	11.12	10.63	11.7	11.7	10.32	10.01	10.92
Std Dev	11.4	11.06	12.68	11.05	9.08	9.56	10.91
Min	0.53	0.22	0.09	0.15	0.1	0.12	0.09
Max	61.83	59.04	63.5	62.45	54.01	62.39	63.5
	% of loans to micro and small: UKB						
Mean	8.16	7.54	7.57	7.78	7.66	7.66	7.73
Std Dev	3.8	3.19	3.45	3.17	2.95	3.1	3.31
Min	5.27	5	4.75	1.79	1.97	1.74	1.74
Max	30.05	23.83	27.34	22.63	15.73	21.54	30.05
	% of loans to medium: UKB						
Mean	7.13	6.35	6.49	7.53	7.43	7.86	7.06
Std Dev	5.25	4.51	4.57	4.83	4.18	5.12	4.78
Min	1.98	2	1.64	0.15	0.1	0.12	0.1
Max	24.93	20.98	21.85	19.39	17.18	24.53	24.93
	% of loans to micro and small: Thrift banks						
Mean	20.78	21.31	22.61	20.52	20.71	21.81	27.3
Std Dev	16.51	17.29	18.61	16.5	16.07	16.94	17.01
Min	0.95	0.59	1	0.79	0.55	1.12	0.55
Max	87.99	75.57	84.56	87	88.31	88.18	88.31
	% of loans to medium: Thrift banks						
Mean	13.93	13.32	14.65	13.66	11.54	10.98	12.99
Std Dev	13.54	12.96	14.7	12.52	10.24	10.86	12.58
Min	0.53	0.22	0.09	0.2	0.31	0.26	0.09
Max	61.83	59.04	63.5	62.45	54.01	62.39	63.5

Source: Authors' calculations using data from the ADB SME Financing Survey

Nonetheless, there is considerable dispersion in banks' decisions to lend to MSMEs. Although UKBs supplied the biggest amount of loans to MSMEs, their own loan portfolio reflected that lending to MSMEs were not their priorities. For these banks, the share of micro and small firms in their loan

portfolios ranged from 1.7% to 25.4% in 2010, while the share of medium firms ranged from 0.1% to 24.9%. It is noteworthy that the average UKB reported only 7.7% of loans to micro and small enterprises, which is below the Magna Carta target.

Meanwhile, there is even greater dispersion in the portfolio decisions of the smaller thrift banks although on average they greatly exceeded the Magna Carta targets. The average thrift bank allotted 21.8% of its loans to micro and small firms (almost 3 times the target), and another 11% to medium firms (over 5 times the target). This suggests that on average, the focus of thrift banks was indeed the smaller firms. Nevertheless, the share of loans to micro and small firms ranged from 1.1% to 88.2%, while that of medium firms ranged from 0.2% to 62.4%. Clearly, some thrift banks were focusing on micro and small firms, while some focused on larger firms.

The trends from individual banks reporting data can be summarized in the following three points. First, universal and commercial banks tend to not focus on MSMEs though they supplied the bulk of credits to MSMEs. Second, loans to medium firms were much higher than legally mandated across all banks. Third, there was a huge dispersion across banks in their optimal loan portfolio choices.

How many banks were directly complying with the Magna Carta Law? Our panel dataset on compliances included 24 quarters of data that can shed some light on the dispersion in portfolio choices (Table 10). We find that only 65.4% of all banks were complying directly on the target for micro and small enterprises at least one quarter. In other words, 36.4% of banks reported at least one incident of under-compliance. Only 2.1% of all banks reported under-complying with the target of direct lending to the micro and small enterprises for 13 to 16 quarters (more than half of all the periods observed). Another 5.5% of banks reported under-complying between 9 and 12 quarters. More importantly, the majority of banks reported over-complying (and even super-complying) with the micro and small lending targets for at least one quarter. In fact 8.4% of all banks reported that they super-complied for most of the periods observed.

Table 10. Frequency of bank direct compliance to the Magna Carta targets across bank types in the Philippines, 2005–2010

Whole Sample	***Number of quarters the banks complied with the Magna Carta***						
	0	***(1–4)***	***(5–8)***	***(9–12)***	***(13–16)***	***(17–20)***	***(21–24)***
Loans to micro and small enterprises							
Undercomply	65.4	20.1	6.9	5.5	2.1	0.0	0.0
Justcomply	51.6	22.1	9.7	11.8	3.5	1.3	0.0
Overcomply	39.1	22.2	15.2	13.2	8.3	1.4	0.6
Supercomply	48.8	15.9	5.5	10.4	5.5	5.5	8.4
Medium enterprises							
Undercomply	84.8	11.8	2.1	0.0	1.4	0.0	0.0
Justcomply	75.1	17.3	3.5	2.8	0.7	0.7	0.0
Overcomply	55.7	19.4	14.5	5.5	3.5	1.4	0.0
Supercomply	30.8	10.4	4.8	10.4	9.7	8.3	25.6
UKBs							
Loans to micro and small enterprises							
Undercomply	49.2	26.5	6.6	13.3	4.4	0.0	0.0
Justcomply	18.2	17.7	22.1	26.5	11.1	4.4	0.0
Overcomply	27.1	26.5	11.1	19.9	13.3	0.0	2.2
Supercomply	75.7	19.9	0.0	2.2	2.2	0.0	0.0
Medium enterprises							
Undercomply	86.7	13.3	0.0	0.0	0.0	0.0	0.0
Justcomply	64.6	19.9	6.6	6.6	2.2	0.0	0.0
Overcomply	49.2	15.5	17.7	8.8	8.8	0.0	0.0
Supercomply	29.3	15.5	6.6	2.2	6.6	6.6	33.2
Thrift banks							
Loans to micro and small enterprises							
Undercomply	72.8	17.1	7.1	2.0	1.0	0.0	0.0
Justcomply	66.8	24.2	4.0	5.0	0.0	0.0	0.0
Overcomply	44.6	20.2	17.1	10.1	6.0	2.0	0.0
Supercomply	36.5	14.1	8.1	14.1	7.1	8.1	12.1
Medium enterprises							
Undercomply	83.9	11.1	3.0	0.0	2.0	0.0	0.0
Justcomply	79.9	16.1	2.0	1.0	0.0	1.0	0.0
Overcomply	58.7	21.2	13.1	4.0	1.0	2.0	0.0
Supercomply	31.5	8.1	4.0	14.1	11.1	9.1	22.2

*Note: UKB = universal and commercial bank; UNDERCOMPLY (lending < mandated), JUSTCOMPLY (mandated=lending< 1.1*mandated), OVERCOMPLY (1.1*mandated≤lending< 2*mandated), and SUPERCOMPLY (lending≥2*mandated)*

Source: Authors' calculations using data from the ADB SME Financing Survey

Not surprisingly, banks were better able to comply with the legal targets for medium enterprise loans. Most banks (69.2%) reported super-complying at least for one quarter by lending more than twice the legal mandate to medium firms. Only 15% of all banks reported any incidence of under-compliance. Furthermore, only 3.5% of all banks reported that they failed to comply with the medium-firm targets for more than 4 quarters during the period we observed.

5. POLICY IMPLICATIONS AND AREAS FOR FUTURE RESEARCH

To summarize, our results highlighted three trends. First, although the total lending levels to MSMEs remained fairly stable, the percentage shares of loans allocated to MSMEs declined drastically from about 30% of total loans in 2002 to 16% of total loans in 2010. Second, banks are finding it harder to meet the target for loans to smaller firms, especially after the target was revised upwards in 2008. The new mandates resulted in a sharp increase in noncompliance in direct lending to micro and small firms, especially amongst universal and commercial banks. Kernel density estimates suggest that the revision of the Magna Carta in 2008 was binding for small firm lending particularly for the universal and commercial banks. Third, there is an increased dispersion in optimal loan portfolio across banks. Most surprisingly, the absolute level of MSME lending by rural co-ops declined since 2008.

Looking ahead, we see various developments recently could potentially further reduce banks' lending to MSMEs. For one, the implementation of the new Basel 3 framework, which raises banks' minimum financial ratios (e.g., Common Equity Tier 1 ratio, Tier 1 ratio and capital adequacy ratio), introduces new parameters such as liquidity coverage ratio and net stable funding ratio, and at the same time increases the risk weights of several asset items, could potentially siphon credit away from the MSME sector. These include the implementation of the Basel 3 parameters, the relaxation of foreign investor participation in rural co-ops, the establishment of the long-awaited credit information bureau, and the expansion of the Credit Surety Fund program of the BSP. There appears to a consensus that the new set of Basel 3 bank soundness criteria will have a dampening effect on MSME lending, not to mention that the BSP just announced a much higher set of ratios than what were prescribed by Basel 3. On the positive side, the latter three developments will most likely boost MSMEs' bankability.

Nonetheless, the BSP shows not only its willingness to adhere to the new set of standards but directed Philippine banks to maintain financial ratios that are 1.5 to 2 percentage points higher than the international benchmarks (BSP Circular No. 781 of 2013). It stipulated that inclusive of conservation buffer of 2.5% of risk-weighted assets, banks should maintain a Common Equity Tier 1 ratio of 8.5% (versus 7% in the B3F), a Tier 1 ratio of 10% (versus 8.5% in the B3F) and a capital adequacy ratio of 12% (versus 10% in the B3F). In the same circular it was noted that the new set of guidelines will be effective beginning 1 January 2014.[26]

Another potential drag on MSME financing is the continued decline in the number of rural co-ops (See box). A spate of bank closures has reduced the number of rural co-ops from 617 by end 2011 to 577 by the end of June 2013. This trend may not have a severe impact on the total value of loans by virtue of the small size of rural co-ops relative to the entire banking sector. But, adverse effect could be felt in terms of the number of MSME clients in the countryside that could lose access to formal credit and better served by rural co-ops prioritizing micro and small clients.

On the upside, recognizing the challenges faced by rural banks, the government passed RA 10574 on 24 May 2013 that effectively increased the allowable equity share of foreigners in rural banks from 40% to 60%. The new law, which amended Sections 4 to 8 of the Rural Bank Act of 1992 (RA 7353), sought to assist rural banks in meeting the capital requirements and put them "on a level playing field with its thrift and commercial banking counterparts that are able to take in foreign partners" according to one of the bill's authors in the Senate (Macrohon 2013).

The prospect of having a fully functional credit information bureau by end of 2014 could also help a lot in improving the transparency of MSMEs' financial standing. Named Credit Information Corporation (CiC), the government-owned and controlled credit bureau was established courtesy of the passage of the Credit Information System Act (RA 9510) on 31 October 2008. The implementing rules and regulations of RA 9510 were ironed out on 27 May 2009. However, it took more than 2 years before CiC started operating on 16 December 2011 and another 5 months before its board members were appointed by the President.[27] Recently, the Securities and Exchange Commission, which is the government agency taking charge in setting up CiC, announced that it is expecting the new credit bureau to function fully in December 2014 (Dumlao 2013).

The CiC, which will mainly target small businesses, is a public–private partnership co-owned by the government (60%) and the private sector (40%). As of November 2012, the private sector parties with stakes in the corporation include the Philippine Cooperatives Center, Bankers Association of the Philippines, Credit Card Association of the Philippines, Chamber of Thrift Banks, Rural Bankers Association of the Philippines, and the Philippine Credit Reporting Alliance (CiC 2012). Note that, prior to the establishment of CiC, two credit bureaus have been created. These are the Credit Information Bureau Inc., which was an initiative of the Central Bank of the Philippines and the Financial Executives Institute of the Philippines, and the Credit Bureau set up by the Bankers Association of the Philippines in 1991.[28] However, the aforementioned two credit bureaus have largely confined their operations to large companies.

The expansion of the BSP's Credit Surety Fund program is an additional booster to MSME lending. From just one fund, the number of pooled resource financing vehicle rose to 27 by the end of March 2013. Since 2010, the approved loans increased fivefold from P134 million to P679.2 million by the

[26] OECD (2012) argued that "the retail risk rating (75%) can be used to weight SME loans, provided the bank's portfolio is diverse and the bank's loan to an SME borrower is less than EUR1 million." Nevertheless, it also noted that "the weighting system also favors many large enterprises over small ones: large companies with good external credit ratings (AAA) are assigned a 20% risk weight, whereas SMEs that are unrated have risk weightings of 100% or 75%. Under Basel III, the difference in core Tier 1 capital the bank needs to hold against their loans is remarkable: 7% of the loan for SMEs with 100% risk weighting, as opposed to 1.4% (7% × 20%) for a large company with an AAA rating."

[27] See CiC Milestones: Historical Background and Timeline.

[28] The Central Bank of the Philippines was renamed Bangko Sentral ng Pilipinas in 1993.

end of the first quarter of 2013. In the same period, released loans increased over sixfold from a little less than P82.2 million to P501.6 million.[29]

Despite the Magna Carta and its subsequent revisions along with the accompanying support measures, bank lending to MSMEs has not increased much. More disconcertingly, MSME lending is generally on a decline as a ratio of banks' total loan portfolio. A substantial drop in MSMEs' share in bank loans is particularly evident among UKBs. Even thrifts and rural co-ops, which are supposed to be the ones absorbing the MSME credit demand, have likewise reduced their lending ratios to the MSMEs quite significantly from 2004 to 2010. Although nominal values show that lending by thrifts and rural co-ops to MSMEs are growing at a decent pace, it appears that their lending to other sectors are expanding even more briskly.

Smaller firms are impacted more than medium-sized firms with the ongoing migration of bank lending portfolio to non-MSME clients. UKBs as a group have already decreased their MSME lending below the mandated 8% ratio. At the level of individual institutions, there is also a notable increase in the number of UKBs not complying with the MSE lending provision of the Magna Carta. In other words, it is more profitable for UKBs to pay the penalties rather than lend to MSEs.

On the other hand, MSE lending of thrifts and RCBs continues to expand. But, lending data illustrate that the share of MSEs in their credit disbursements has declined significantly although still well above the Magna Carta's required ratio. Further research would be required to understand the determinants of this pattern. Nonetheless, understanding these recent changes in MSME lending preferences would be essential in crafting future financial inclusion programs. On a positive note, bank-level data suggest that more thrifts have recently become more compliant to MSE lending requirement.

We conjecture that perhaps abolishing the Magna Carta targets for loans to medium-sized enterprises might not have much adverse effects. It is also notable that consistently, banks do not have trouble complying with the mandated lending ratio for middle-sized firms. As of 2010, UKBs, thrifts and rural co-ops maintained a good positive margin with respect to the legal requirement and noncompliance was limited. However, the steady downward trend in MSME loan allocation across bank groups in recent years cannot be overlooked. This trend parallels the downward drift of banks' lending ratio to micro and small firms explained above. The differences lie in the degree of the decline —which is more muted in the case of lending to medium firms whereby the banks' allocation was still much higher than mandated by law.

The overall pattern of decreasing share of bank lending to MSMEs thus suggests a need to revisit, if not redesign, the current MSME lending policy framework. While the dynamism of the MSME sector hinges upon having reliable access to financing, banks in return should be given reasonable incentives to align their business models with the government's social agenda. In addition, there are ways to increase alternative sources of credit for MSMEs, such as developing equities and bonds market suitable for MSMEs. The government could also further improve measures to increase financing supply by harnessing untapped domestic savings and foreign exchange reserves rather than relying on a strict mandate on banks' portfolio allocation. Banks were finding it increasingly onerous to comply with the law and more than a half of commercial and universal banks undercomplied for at least a quarter during the period we observed. Expanding alternative means of financial access for MSMEs would be even more important given looming policy and institutional changes.

[29] See BSP (2013b).

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CONSTITUENTS' FORMAL PARTICIPATION IN THE IASB'S DUE PROCESS: NEW INSIGHTS INTO THE IMPACT OF COUNTRY AND DUE PROCESS DOCUMENT CHARACTERISTICS

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Abstract

This paper adopts a multi-issue/multi-period approach to provide new insights into key determinants of constituents' formal participation in the due process of the International Accounting Standards Board (IASB). Based on an analysis of 8,825 comment letters submitted during the period 2006–2012, we find imbalances in the representation of constituents. Multiple regressions reveal that among various economic and cultural variables equity market capitalization and the society's level of individualism are the key drivers of the country-level of constituents' participation, and each variable has explanatory power over the other. The level of constituents' participation is positively associated with the number of input opportunities offered by a due process document but unrelated to the complexity of a standard-setting project. The results are robust across various sub-samples and to additional sensitivity tests. Our findings indicate threats to the input legitimacy of the IASB and suggest avenues to stimulate constituents' participation.

Keywords: Accounting, Comment Letters, International Accounting Standards Board (IASB), International Financial Reporting Standards (IFRS), Legitimacy, Standard-setting

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1. INTRODUCTION

The foremost objective of the IFRS Foundation is "to develop, in public interest, a single set of high quality, understandable, enforceable and globally accepted financial reporting standards" (IFRS Foundation 2013a, par. 2(a)). The International Accounting Standards Board (IASB) develops standards based on an institutional due process that involves interested parties from all over the world. Interested parties are invited to submit comment letters (CLs) in response to the IASB's due process documents (DPDs), i.e. discussion papers (DPs) and exposure drafts (EDs). CLs are assigned "a pivotal role in the deliberations process" (IFRS Foundation 2013b, par. 3.64). As a major method to participate in the IASB's standard-setting process, CLs can be considered a typical vehicle of constituents' *lobbying* towards the IASB, as a private organization (Georgiou, 2010; Hansen, 2011; Orens et al., 2011; Richardson and Eberlein, 2011). For the IASB, in turn, wide-spread participation of constituents is of utmost importance to gain *legitimacy*, particularly input legitimacy, as a global standard-setter (Suchman, 1995; Durocher et al., 2007; Larson and Kenny, 2011; Jorissen et al., 2013). The purpose of this paper is to explore the impact of country and DPD characteristics on constituents' formal participation in the IASB's due process in a multi-issue/multi-period research design.

Empirical accounting research largely relies on CLs to investigate constituents' formal participation in the private standard-setting process, and the growing body of research on the IASB is no exception (Larson and Herz, 2011, 2013; Giner and Acre, 2012; Dobler and Knospe, 2016). The focus on CLs is for a number of reasons (Königsgruber, 2010; Bamber and McMeeking, 2016). First, information on informal participation is not publicly available. Second, it is almost impossible to collect data on various participation methods in a multi-issue/multi-period research design. Third, there is evidence that the use of CLs is linked to the use of informal participation methods (Georgiou, 2004, 2010). Against this background, this paper choses CLs to measure constituents' participation in the IASB's due process.

Much of prior research has focused on characteristics of constituents. Results indicate imbalances in the representation of interest groups (Larson and Herz, 2011; Giner and Arce, 2012; Jorissen et al., 2012) and of geographic origins

(Kenny and Larson, 1993; Jorissen et al., 2013; Larson and Herz, 2013), which might induce criticism in relation to the input legitimacy of the IASB. Since wide-spread participation in geographic terms is a particular matter of IASB as a global standard-setter, it is important to understand what determines the level of constituents' participation across countries. Research to date, however, provides limited evidence on the determinants of constituents' participation in regard to characteristics of constituents' countries of origin (MacArthur, 1996; Larson and Herz, 2013). Since the IASB can influence the characteristics of DPDs to some extent, evidence on the association between constituents' participation and DPD characteristics could indicate ways to stimulate participation and gain input legitimacy. However, there is piecemeal evidence to date. Findings suggest an impact of the type of accounting issue addressed and the formal status of a DPD in the IASB's due process (Giner and Arce, 2012; Jorissen et al., 2012). Overall, existing results are partly inconclusive, only cover small sets of explanatory variables in multivariate analyses, and potentially neglect key determinants.

The *objective* of this paper is to determine the impact of country characteristics (which are beyond the control of the IASB) and of DPD characteristics (which the IASB can influence to some extent) on the level of constituents' participation. The research population covers 8,825 CLs sent to the IASB in response to 56 DPDs in the period 2006–2012, and is larger in terms of CLs than related multi-issue/multi-period studies (Jorissen et al., 2012, 2013; Larson and Herz, 2013). In regard to country characteristics, we hypothesize that there is an association between the level of constituents' participation and (1) the level of economic development, and (2) cultural characteristics of the countries of origin. Our paper extends recent research by Larson and Herz (2013) and Jorissen et al. (2013) by jointly investigating sets of economic and cultural characteristics. This allows us to assess whether each has incremental explanatory power over the other in respect to the level of constituents' participation. In regard to DPD characteristics, we hypothesize that there is an association between the level of constituents' participation and two novel characteristics of DPDs: (1) the number of input opportunities offered, and (2) the complexity of the standard-setting project a DPD is affiliated with. Unlike prior research, all the analyses distinguish between projects solely conducted by the IASB and Memorandum of Understanding (MoU) projects related to the convergence of IFRS and US GAAP. This distinction is made since the two types of projects are likely to differ in regard to patterns of constituents' participation (Georgiou, 2010).

The *key findings* of this paper are as follows: First, there are imbalances in the representation of interest groups and geographic origins in the IASB's due process. The findings suggest that threats to the IASB's input legitimacy prevail in recent periods and across different types of DPDs and projects. Second, multivariate regressions reveal positive associations between the level of constituents' participation and both, a country's equity market capitalization and its level of individualism where each variable has explanatory power over the other. The findings are consistent with the IASB's focus on the information needs of capital markets and with strong involvement of individuals in the political system in societies characterized by high levels of individualism. Further evidence suggests that language barriers may inhibit constituents' participation in non-English speaking countries, while the level of participation is unaffected by a country's level of institutional reliance on IFRS. The findings are important to understand the biases in the representation of geographic origins in the IASB's due process and contribute to the discussion of the IASB's input legitimacy. Third, DPD regressions reveal a positive association between the level of constituents' participation and the number of input opportunities offered. For other characteristics we find mixed evidence (status in the IASB's due process, affiliation with a MoU project) or no association with the level of constituents' participation (project complexity, type of accounting issue, length of the comment period). Since the IASB can influence DPD characteristics at least to some extent our findings suggest avenues to stimulate constituents' participation and to gain input legitimacy. Overall, our paper contributes to the recent discussion of lobbying the international standard-setter and its input legitimacy.

The remainder of the paper is organized as follows: Sections 2 and 3 present the literature review and our hypotheses development, respectively. Section 4 describes our research population and the classification procedures employed. Section 5 presents the empirical models. Section 6 discusses the research results, followed by conclusions in Section 7.

2. LITERATURE REVIEW

Grounded on a model of procedural legitimacy, Richardson and Eberlein (2011) define legitimacy of a private standard-setter as a three-stage process. First, inputs are collected from affected parties (input legitimacy), then considered, aggregated, and transformed in a formal decision process (throughput legitimacy), and finally result in standards (output legitimacy). Input legitimacy requires constituents that are affected by standards to be represented in the standard-setting process (Johnson and Solomons, 1984; Durocher et al., 2007; Larson and Kenny, 2011). In case of the IASB, wide-spread participation across interest groups and geographic origins is crucial to gain input legitimacy (Kothari et al., 2010; Burlaud and Colasse, 2011; Larson and Herz, 2013). Participation in the standard-setting process is also considered important since it generates information that helps the IASB to assess potential reactions to its standards (Suchman, 1995; Zeff, 2002; Jorissen et al., 2013).

In turn, constituents must have incentives to participate in the standard-setting process. Building on work of Downs (1957), Sutton (1984) develops a cost-benefit framework to explain why parties participate in the lobbying process. Lobbying occurs if the difference in the utility assigned to two alternative outcomes of the standard-setting process, adjusted by the probability that lobbying will be successful, exceed the costs of lobbying. Sutton (1984) derives numerous predictions on the participation and content of lobbying that have been tested in empirical accounting research.

Empirical accounting research largely relies on publicly available CLs to investigate constituents' formal participation in the private standard-setting process. Georgiou (2004, 2010) provides evidence that the use of CLs by constituents is closely linked to the use of informal participation methods. Based on Sutton's (1984) framework, Dobler and Knospe (2016) distinguish three major strands of CL-based lobbying research. The strands focus on the participation in, the content of, and success of lobbying towards a standard-setter. The first strand is most closely related to our study. It documents that interest groups are not equally represented in the IASB's due process. Particularly and as predicted by Sutton (1984), preparers of financial statements participate more than users of financial statements, while there are intermediate levels of participation for accountants and regulators (Kwok and Sharp, 2005; Giner and Arce, 2012; Jorissen et al., 2012, 2013).

Since the IASB seeks legitimacy as a global standard-setter, constituents' participation in terms of geographic representation is of particular importance. Evidence, however, indicates that European constituents participate most frequently in the due process of the IASB followed by constituents from North America and Asia/Oceania (Larson and Herz, 2011, 2013; Jorissen et al., 2013; Wingard et al., 2016). Sutton's (1984) framework implies more participation from countries that are more heavily affected by proposed standards and that are wealthier compared to others. Empirical work relates relative over- or underrepresentation of geographic origins to differences in the economic (Larson and Herz, 2013), cultural (MacArthur, 1996; Jorissen et al., 2006), institutional, and lingual characteristics (Larson and Herz, 2011, 2013; Jorissen et al., 2013) of the constituents' countries of origin.

Focusing on economic characteristics, Larson and Herz (2013) document that the level of equity market development, EU and G4+1 membership are all positively associated with constituents' participation in the IASB's due process. Based on Hofstede's (2001) cultural dimensions and Gray's (1988) accounting values, Jorissen et al. (2006) observe a negative impact of power distance, while Jorissen et al. (2013) indicate a positive impact of individualism on the level of participation in the IASB's due process. Jorissen et al. (2013) report a positive impact of a country's IFRS adoption status on preparers' participation. Jorissen et al. (2013) and Larson and Herz (2013) also provide limited evidence on language barriers that seem to inhibit participation.

There is very limited evidence on the association between the level of constituents' participation and characteristics of DPDs published and the projects they are affiliated with. Sutton (1984) predicts that participation in the lobbying process is affected by the type of accounting issue under consideration. Empirical findings suggest that constituents' participation depends on the type of accounting issue addressed. While classification schemes employed are diverse, particularly substantial issues related to recognition and measurement seem to be related to high levels of participation (Saemann, 1999; Buckmaster et al., 1994; Jorissen et al., 2012). The formal status of a DPD in the IASB's due process suggests to differentiate between EDs which are compulsory and DPs which are not (IFRS Foundation 2013b, par. 6.1). Sutton (1984) predicts that participation at an early stage of the due process is more likely than in later stages. Questionnaire-based evidence by Georgiou (2004, 2010) does not support this prediction. CL-based studies that compare constituents' participation in response to DPs (i.e. at an early stage of a project) and in response to EDs (i.e. at a later stage of a project) yield inconsistent results (Giner and Arce, 2012; Larson and Herz, 2013; Dobler and Knospe, 2016).

Further characteristics of DPDs have been largely neglected in empirical research on constituents' participation. Larson and Herz (2013, p. 131) argue that a "brief comment time period may limit some constituent participation", but do not provide evidence. By dividing their research population, Jorissen et al. (2013) conclude that, compared to projects solely conducted by the IASB, convergence projects in which the IASB and the FASB cooperate according to the MoU (IFRS Foundation, 2002, 2012) do not necessarily stimulate higher levels of participation. Yet, they do not provide statistical evidence.

In sum, the literature review indicates limited evidence on the impact of country characteristics and piecemeal evidence on the impact of characteristics of DPDs on constituents' participation in the IASB's due process through CLs.

3. HYPOTHESES DEVELOPMENT

In order to enhance the understanding of determinants of constituents' formal participation in the IASB's due process, this paper investigates the impact of country characteristics which are beyond the standard-setters control, and of DPD characteristics which the standard-setter can influence to some extent.

Empirical research documents imbalances in the representation of geographic origins but provides limited and partly mixed evidence on the country characteristics that drive constituents' participation in the IASB's due process. Recent multi-issue/multi-period analyses by Larson and Herz (2013) and Jorissen et al. (2013) provide valuable contributions. However, Larson and Herz (2013) do not address cultural characteristics and Jorissen et al. (2013) solely use economic characteristics of the countries of origin to scale the dependent variable. We jointly analyze the impact of sets of economic and cultural country characteristics in order to address whether and to what extent each has incremental explanatory power over the other with respect to the level of constituents' participation.

Adopting Sutton's (1984) framework to the international level suggests that relative wealth in economically developed countries is associated with higher levels of constituents' participation in the IASB's due process. To the extent a country's size of equity market and IFRS adoption are related (Hope et al., 2006; Zéghal and Mhedhbi, 2006), constituents from countries with developed equity markets are likely to be more heavily affected by the IASB's standard-setting and to participate more (Larson and Herz, 2013). Empirical findings on imbalances in representation of geographic origins in the IASB's due process are roughly in line with these assessments. Larson and Kenny (1998) and Larson

(2007) document relatively low levels of participation by constituents from economically less developed countries. More particularly, Larson and Herz (2013) find a positive impact of various variables representing a country's level of economic development on constituents' participation. Thus, our first hypothesis states:

H1a: *The level of economic development of a country is positively associated with the level of constituents' participation in the due process.*

Various strands of literature suggest that a country's transparency or secrecy in regard to financial accounting is associated with cultural characteristics (MacArthur, 1996; Ding et al., 2005). Gray (1988, p. 11) states that "the higher a country ranks in terms of uncertainty avoidance and power distance and the lower it ranks in terms of individualism and masculinity then the more likely it is to rank highly in terms of secrecy". Taking account of the public perception of constituents' preferences (Sutton, 1984), higher levels of secrecy imply less indirect participation costs of lobbying through CLs. As a consequence, the level of constituents' participation should increase in a country's level of secrecy. Grounded in Gray's (1988) accounting values and Hofstede's (2001) cultural dimensions, cultural characteristics should be related to the country-level of participation in the IASB's due process.

First, power distance (*PDI*) measures the acceptance of unequal distribution of power. Hofstede (2001, p. 112) argues that "citizens of high *PDI* societies tend to wait for action by the government. Citizens of low-*PDI* societies are more likely to cooperate with their governments". This suggests a negative association between *PDI* and constituents' participation (Jorissen et al., 2006). Second, uncertainty avoidance (*UAI*) is a measure for society feeling uncomfortable with uncertainty. Hofstede (2001) predicts that citizens from countries with a low *UAI* are more interested in politics and protest government decisions. This suggests a negative association between *UAI* and constituents' participation. Third, individualism (*IDV*) is a measure for "the relationship between the individual and the collectivity that prevails in a given society" (Hofstede, 2001, p. 209). Since *IDV* is positively related to the involvement of voters in the political system, we expect a positive association between *IDV* and constituents' participation (Jorissen et al., 2013). Finally, masculinity (*MAS*) is a measure for masculinity as opposed to femininity. Hofstede (2001) suggests that the level of high levels of masculinity relate to a more adversarial political discourse. This suggests a positive association between *MAS* and constituents' participation.

Particularly, we expect the level of constituents' participation to be negatively associated with the levels of *PDI* and *UAI* – as documented by Jorissen et al. (2006, 2013) –, but positively associated with the levels of *IDV* and *MAS* (Gray, 1988; Hofstede, 2001). Given these expectations, our second hypothesis states:

H1b: *The cultural characteristics of a country are associated with the level of constituents' participation in the due process.*

While controlling for a number of DPD characteristics addressed in prior research, we particularly introduce two novel characteristics: the input opportunities offered by a DPD, and the complexity of a project the DPD is affiliated with.

A DPD of the IASB poses a number of questions (IFRS Foundation, 2013b, par. 6.3). The questions offer distinct opportunities for constituents to provide input to the standard-setting process (Hansen, 2011; Richardson and Eberlein, 2011; Giner and Arce, 2012). According to Sutton (1984, p. 89), constituents' participation depends on the cost-effectiveness of lobbying defined as "the influence ... per unit of lobbying expenditure". Constituents do not need to take all opportunities offered by a DPD to provide input. Based on cost-benefit considerations per opportunity, they can and do participate by providing input on single questions posed in order to influence the IASB (Lindahl, 1987; Georgiou, 2004; Dobler and Knospe, 2016). The greater the number of distinct input opportunities, the more likely it is that benefits exceed the costs of providing input on at least one question. Ceteris paribus, a greater number of input opportunities offered by a DPD to influence the IASB should then increase constituents' incentives to participate in the due process (Georgiou, 2010). Thus, our next hypothesis states:

H2a: *The number of input opportunities offered by a DPD is positively associated with the level of constituents' participation in the due process.*

DPDs are affiliated with projects of the standard-setter. Some projects, such as *Financial Instruments* and *Post-employment benefits (including pensions)*, are considered more complex than others by both constituents (Amen, 2007; Chatham et al., 2010) and the standard-setter (IFRS Foundation, 2008, par. 2.7; IFRS Foundation, 2014). For constituents, a higher level of complexity is related with higher costs of participation in the due process. Sutton's (1984) framework then, ceteris paribus, suggests lower levels of constituents' participation in response to DPDs affiliated with a complex project. The IASB tends to issue more DPDs related to complex projects, like the projects mentioned above (Chatham et al., 2010). Facing a greater number of DPDs related to one project, constituents have to coordinate their lobbying efforts (Georgiou, 2010). It is argued here that the coordination efforts due to the complexity of a project further increase the costs of participation.[30] So constituents' incentives to respond to a DPD likely decrease in the complexity of the project the DPD is affiliated with. Recent empirical studies seem to support these arguments and suggest that constituents do not have sufficient funds to address the large number of DPDs (Georgiou, 2010; Dobler and Knospe, 2016). Thus, our final hypothesis states:

H2b: *The complexity of a project is negatively associated with the level of constituents' participation in the due process.*

4. COLLECTION OF DATA AND CLASSIFICATION OF DPDS AND CONSTITUENTS

[30] Constituents may consider responding to a single DPD without considering related DPDs affiliated with the same project. In this case, there are no coordination costs but higher costs of participation due to a complex issue addressed by the project may still hamper the level of constituents' participation.

This multi-issue/multi-period analysis of constituents' participation in the IASB's due process begins in 2006 and ends in 2012. For this period, DPDs and related CLs were, at large, publicly available from the IASB's website as of 30 June 2013. The IASB's website lists 63 DPDs that were published in 2006 or later and that have a comment period which was closed no later than 31 December 2012. Seven DPDs are excluded since the documents or CLs were unavailable from the IASB's website as of 30 June 2013.[31] Thus, our study covers 56 DPDs related to 28 projects.

All DPDs are classified along three dimensions. First, we distinguish between DPs and EDs by reference to their status in the IASB's formal due process (IFRS Foundation, 2013b). The DPDs in our study consist of ten DPs and 46 EDs. The larger number of EDs is not surprising since the publication of an ED is mandatory, while the publication of a DP is optional in the IASB's due process (IFRS Foundation, 2013b, par. 6.1).

Second, by reference to the convergence agenda of the IASB (IFRS Foundation, 2006, 2012, 2013c) we distinguish between DPDs related to projects solely conducted by the IASB (IASB projects) and projects that are part of the MoU (MoU projects). 26 DPDs are affiliated with IASB projects and 30 with MoU projects. The large number of DPDs related to MoU projects indicates the importance of convergence with US GAAP on the IASB's agenda in our research period.

Third, DPDs are classified according to their content in terms of the accounting issue predominantly addressed. Buckmaster et al. (1994) distinguish three categories. Standardization issues (*STAN*) address key accounting methods, recognition, and measurement. Disclosure issues (*DISC*) address note and other disclosures. Technical issues (*TECH*) address definitions, transition, annual improvements, and the conceptual framework. Our study covers 40 DPDs on standardization issues, seven on disclosures issues, and nine on technical issues. This pattern suggests a focus on standardization issues in the IASB's agenda.

We collect 8,825 CLs related to the 56 DPDs from the IASB's website.[32] All CLs are classified according to the constituents' interest group affiliation and geographic origin. Consistent with prior research (Kwok and Sharp, 2005; Larson, 2007; Bamber and McMeeking, 2016), we distinguish five interest groups: preparers of financial statements (including financial service businesses); users of financial statements (including analyst organizations); accountants (including public accounting firms and accounting professional bodies); regulators (such as accounting standard-setters, stock exchange regulators, and governmental agencies); and individuals (such as academics).[33] Constituents' countries and continents of origin are collected by reference to geographic criteria. Consistent with Jorissen et al. (2013), constituents that cannot be assigned to a specific country or continent are classified as international constituents (such as Big-4 accounting firms and International Organization of Securities Commissions).

In order to mitigate subjectivity and to ensure reproducibility, all data were independently reviewed by one of the authors and an experienced student coder. Any disagreements were discussed and reconciled.

5. EMPIRICAL MODELS AND DESCRIPTION OF VARIABLES

Two sets of linear regression models are employed in order to test the hypotheses. To test H1a and H1b, model (1) regresses the number of CLs per country of origin (*CL_COUNTRY*) on sets of research variables representing a country's level of economic development (H1a) and cultural characteristics (H1b) and control variables:

$$CL_COUNTRY = \alpha_0 + \alpha_1 MAC + \alpha_2 GDP + \alpha_3 PDI + \alpha_4 UAI + \alpha_5 IDV + \alpha_6 MAS + \alpha_7 LANG + \alpha_8 IFRS + \varepsilon_1 \quad (1)$$

Similar to Larson and Herz (2013), we use two research variables to measure a country's level of economic development: equity market capitalization (*MAC*) and gross domestic product per capita (*GDP*), each measured as mean over the years 2006–2012 in USD. H1a predicts positive coefficients on *MAC* and *GDP* (α_1 and α_2).

To address H1b, four research variables are included representing country-scores of Hofstede's (2001) cultural dimensions. The variables are power distance (*PDI*), uncertainty avoidance (*UAI*), individualism (*IDV*), and masculinity (*MAS*). H1b implies negative coefficients on *PDI* and *UAI* (α_3 and α_4) but positive coefficients on *IDV* and *MAS* (α_5 and α_6).

Model (1) includes two control variables. First, prior research argues that constituents may refrain from participating in the IASB's due process due to language barriers (Standish, 2003; Burlaud and Colasse, 2011). In order to control for language

[31] The restrictions relate to DP *Financial Instruments with Characteristics of Equity*, DP *Preliminary Views on an improved Conceptual Framework for Financial Reporting: The Reporting Entity (Phase D)*, DP *Reducing Complexity in Reporting Financial Instruments*, ED *Exposures Qualifying for Hedge Accounting*, ED *Income Tax*, ED *Management Commentary*, ED *Rate-regulated Activities*. Detailed statistics on the characteristics of the projects and the DPDs considered are available from the authors.

[32] Our data on the number of constituents per individual DPD for the period 2006–2007 only slightly differs in some from the data provided by Jorissen et al. (2013). Some CLs were no longer available from the IASB's website: 3 CLs related to ED *Operating Segments*, and 1 CL each related to ED *Joint Arrangements*, ED *Financial Instruments: Amortised Cost and Impairment*, ED *Hedge Accounting*, ED *Phase B - Presentation of Items of Other Comprehensive Income - Proposed amendments to IAS 1*, and ED *Revenue from Contracts with Customers* (2010).

[33] Some studies use a more detailed classification of interest groups (Larson and Brown, 2001; Jorissen et al., 2013). It is justified to employ a simple classification in this paper since we do not focus on interest group affiliation. CLs of multiple authors are only included if the authors have the same interest group affiliation and geographic origin. The geographic origin of subsidiaries is coded irrespective of the location of the parent. In some cases, the affiliation with an interest group or a country of origin is determined by a web-based search.

barriers, we include a dummy variable on the language proficiency (*LANG*). Consistent with Larson and Herz (2013), the variable is coded 1 if English is a major or an official language in constituents' country of origin, and zero otherwise.[34] Constituents from English speaking countries are less likely to face language barriers in assessing DPDs, suggesting positive coefficient on *LANG* (α_7). Second, prior research suggests that the level of constituents' participation in the IASB's due process differs in a country's institutional reliance on IFRS (Hansen, 2011; Jorissen et al., 2013). To control for the level of reliance on IFRS, we include the variable *IFRS*. Based on data collected from the IASplus website (www.iasplus.com), the variable takes the value 1 for countries where IFRS are not permitted, 2 for countries where IFRS are permitted, and 3 for countries where IFRS are mandatory for the preparation of some or all financial statements (Dobler and Knospe, 2016). Constituents from countries with greater reliance on IFRS are likely to be more affected by the IASB's standards and more likely to participate, suggesting a positive coefficient on *IFRS* (α_8).

To test our hypotheses H2a and H2b, model (2) regresses the number of CLs per DPD (*CL_DOCUMENT*) on the input opportunities offered by a DPD (H2a), the complexity of a project it is affiliated with (H2b), and control variables:

$$CL_DOCUMENT = \beta_0 + \beta_1 INPUTOP + \beta_2 COMPLEX + \beta_3 DISC + \beta_4 TECH + \beta_5 ED + \beta_6 DURA + \beta_7 CONV + \varepsilon_2 \quad (2)$$

The number of questions posed by a DPD is used as a measure for the input opportunities offered (*INPUTOP*). Based on considerations of cost-effectiveness (Sutton, 1984; Lindahl, 1987), H2a predicts a positive coefficient on this research variable (β_1). The argument is that a larger number of distinct questions posed in the DPD suggest more opportunities to impact the IASB's standard-setting process. The number of DPDs related to one project is used to measure the complexity of a project a DPD is affiliated with (*complex*). Since constituents' participation costs are likely to increase in the complexity of a standard-setting project, H2b predicts a negative coefficient on *COMPLEX* (β_2).

Model (2) includes a number of control variables. Based on Buckmaster et al. (1994) and Dobler and Knospe (2016), we control for content-related characteristics of a DPD in terms of the accounting issue predominantly addressed. Using standardization issues as the base case, we include two dummy variables that take the value 1 if the document is classified to address disclosure issues (*DISC*) or technical issues (*TECH*), respectively, and zero otherwise. Given inconsistent findings in theoretical and empirical literature reviewed in Section 2, we do not predict an expected sign on β_3 and β_4.

To control for the status of a DPD in the IASB's formal due process, the dummy variable *ED* is included. The variable takes the value 1 if the DPD is an ED, and zero if it is a DP. Sutton's (1984) framework suggests higher levels of participation in response to a DP compared to an ED. Conversely, Dobler and Knospe (2016) argue that some constituents focus on more immediate standard-setting proposals as reflected in an ED. Evidence to date is inconclusive (Giner and Arce, 2012; Jorissen et al., 2012). Since the variable *ED* controls for a number of potentially countervailing effects, we do not predict an expected sign on β_5.

To control for the duration of the comment period, the variable *DURA* is included representing the length of the comment period of a DPD as measured in months. A longer comment period suggests more time for constituents to prepare and submit CLs implying to expect a positive coefficient β_6 (Larson and Herz, 2013). Finally, we include the dummy variable *CONV* that takes the value 1 if the DPD is affiliated with a MoU project, and zero otherwise. Theoretical considerations and empirical evidence (Georgiou, 2010; Jorissen et al., 2013; Larson and Herz, 2013) suggest to expect a positive coefficient β_7.

In recent years, international accounting standard-setting has been shaped by the convergence of IFRS and US GAAP (IFRS Foundation, 2002, 2012). It is important to note that MoU projects differ from projects solely conducted by the IASB in at least three major ways. First, MoU projects typically deal with substantive changes in accounting, e.g. in the projects *Financial Instruments*, *Leases*, and *Revenue Recognition*, that affect many interest groups (IFRS Foundation 2013c). Second, by proposing changes in US GAAP, MoU projects directly affect constituents from the US and are likely to increase their incentives to participate in the due process (Georgiou, 2010; Larson and Herz, 2013). Third, Jorissen et al. (2013) suggest that MoU projects are associated with high levels of constituents' participation. In order to explore whether the drivers of constituents' participation differ between IASB projects and MoU projects, models (1) and (2) are estimated separately for both groups of projects.

6. RESULTS AND DISCUSSION

6.1 Descriptive results on constituents' participation

The research population of this study consists of 8,825 CLs sent to the IASB in response to 56 DPDs in 28 projects. The number of constituents per DPD ranges from 22 (ED *Limited Exemption from Comparative IFRS 7 Disclosures for first-time adopters – Proposed amendments to IFRS 1*) to 971 (ED *Revenue from Contracts with Customers*). Table 1 presents summary descriptive results on the number of constituents in response to DPDs in total (Panel A), per interest group (Panel B), and per continent of origin (Panel C). Each Panel compares the average number of constituents between DPs and EDs, and between IASB projects and MoU projects.

[34] Our results remain qualitatively unchanged when using language distance as an alternative measure of language barriers. Language distance is a country-score on the distance between the local language and English language (Jeanjean et al., 2010).

Table 1. Summary descriptive results on constituents' participation

Panel A: Constituents' total participation

	Total	DPs	EDs	*p*-value of Mann–Whitney test: DPs vs. EDs	IASB	MoU	*p*-value of Mann–Whitney test: IASB vs. MoU
Average number of CL per DPD	**157.59**	**173.70**	**154.09**	**0.042**	**94.15**	**212.57**	**<0.001**
Absolute number of CL	*8,825*	*1,737*	*7,088*		*2,448*	*6,377*	
N	56	10	46		26	30	

Panel B: Constituents' participation per interest group

		Total	DPs	EDs	*p*-value of Mann–Whitney test: DPs vs. EDs	IASB	MoU	*p*-value of Mann–Whitney test: IASB vs. MoU
Preparers	**Average number of CL per DPD**	**74.36**	**85.90**	**71.85**	**0.033**	**35.85**	**107.73**	**<0.001**
	Absolute number of CL	*4,164*	*859*	*3,305*		*932*	*3,232*	
Users	**Average number of CL per DPD**	**12.23**	**17.70**	**11.04**	**0.030**	**6.00**	**17.63**	**<0.001**
	Absolute number of CL	*685*	*177*	*508*		*156*	*529*	
Accountants	**Average number of CL per DPD**	**28.16**	**28.90**	**28.00**	**0.493**	**23.42**	**32.27**	**0.002**
	Absolute number of CL	*1,577*	*289*	*1,288*		*609*	*968*	
Regulators	**Average number of CL per DPD**	**25.46**	**25.40**	**25.48**	**0.932**	**21.15**	**29.20**	**<0.001**
	Absolute number of CL	*1,426*	*254*	*1,172*		*550*	*876*	
Individuals	**Average number of CL per DPD**	**17.38**	**15.80**	**17.72**	**0.011**	**7.73**	**25.73**	**0.056**
	Absolute number of CL	*973*	*158*	*815*		*201*	*772*	
Kruskal–Wallis test		**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	
Mann–Whitney test: Preparers vs. users		**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	

Panel C: Constituents' participation per continent

		Total	DPs	EDS	*p*-value of Mann–Whitney test : DPs vs. EDs	IASB	MoU	*p*-value of Mann–Whitney test: IASB vs. MoU
Europe	**Average number of CL per DPD**	**62.77**	**80.20**	**58.98**	**0.030**	**41.69**	**81.03**	**<0.001**
	Absolute number of CL	*3,515*	*802*	*2,713*		*1,084*	*2,431*	
EU	***Average number of CL per DPD***	***50.16***	***64.70***	***47.00***	***0.032***	***32.96***	***65.07***	***<0.001***
	Absolute number of CL	*2,809*	*647*	*2,162*		*857*	*1,952*	
North America	**Average number of CL per DPD**	**46.84**	**45.20**	**47.20**	**0.020**	**16.73**	**72.93**	**0.002**
	Absolute number of CL	*2,623*	*452*	*2,171*		*435*	*2,188*	
US	***Average number of CL per DPD***	***37.13***	***35.30***	***37.52***	***0.006***	***8.50***	***61.93***	***0.002***
	Absolute number of CL	*2,079*	*353*	*1,726*		*221*	*1,858*	
South America	**Average number of CL per DPD**	**1.77**	**0.80**	**1.98**	**0.054**	**1.62**	**1.90**	**0.368**
	Absolute number of CL	*99*	*8*	*91*		*42*	*57*	
Africa	**Average number of CL per DPD**	**4.52**	**4.00**	**4.63**	**0.870**	**4.12**	**4.87**	**0.570**
	Absolute number of CL	*253*	*40*	*213*		*107*	*146*	
Asia/ Oceania	**Average number of CL per DPD**	**28.52**	**27.50**	**28.74**	**0.592**	**19.46**	**36.37**	**<0.001**
	Absolute number of CL	*1,597*	*275*	*1,322*		*506*	*1,091*	
Inter-national	**Average number of CL per DPD**	**13.18**	**16.00**	**12.57**	**0.020**	**10.54**	**15.47**	**0.001**
	Absolute number of CL	*738*	*160*	*578*		*274*	*464*	
Kruskal–Wallis test		**<0.001**	**<0.001**	**<0.001**		**<0.001**	**<0.001**	
Mann–Whitney test: EU vs. US		**<0.001**	**0.049**	**<0.001**		**<0.001**	**<0.001**	

Notes: *DPs* = discussion papers; *EDs* = exposure drafts; *IASB* = projects solely conducted by the IASB; *MoU* = projects that are part of the Memorandum of Understanding.

Panel A of Table 1 reports that the average number of CLs (CL) per DPD is 157.59. Mann-Whitney tests indicate a higher average number of CLs in response to DPs compared to EDs ($p = 0.042$), and in response to a DPD related to MoU projects compared to IASB projects ($p < 0.001$). The first univariate finding seems consistent with Sutton's (1984) prediction that constituents' lobbying is more likely in early phases of a standard-setting process. The second univariate finding indicates that MoU projects attend larger interest among constituents as suggested by Jorissen et al. (2013).

Panel B of Table 1 presents per interest group statistics on the average number of CLs per DPD. Preparers participate most (74.36), followed by accountants (28.16), and regulators (25.46). Across the board, Kruskal-Wallis tests indicate significant differences between the interest groups ($p < 0.001$). As implied by Mann-Whitney tests, preparers participate more than users ($p < 0.001$). The findings are consistent with Sutton's (1984) framework and most prior research (Kwok and Sharp, 2005; Giner and Arce, 2012; Dobler and Knospe, 2016).

Individual interest group results consistently reveal a significantly higher average number of CLs for MoU projects compared to IASB projects. Results, however, differ in regard to participation in response to DPs and EDs. Results indicate that, on average, only preparers and users participate significantly more in response to DPs ($p = 0.033$ and $p = 0.030$). Conversely, individuals participate more in response to EDs ($p = 0.011$). Accountants and regulators show a rather balanced pattern. These findings suggest that participation in different stages of a standard-setting process differs between interest groups.

Panel C of Table 1 reports per continent statistics on the average number of CLs per DPD. Constituents from Europe participate most (62.77), followed by constituents from North America (46.84), and Asia/Oceania (28.52). Across the board, Kruskal-Wallis tests indicate significant differences between the continents ($p < 0.001$). More particularly, constituents from the EU participate more than constituents from the US Mann-Whitney tests consistently show that the differences between the EU and the US are significant. This finding complements descriptive results by Jorissen et al. (2013) and Larson and Herz (2013) on earlier periods of standard-setting of the IASB and IASC.

Individual continent results reveal that the average number of CLs in response to DPs, compared to EDs, is only significantly higher for European and international constituents ($p = 0.030$ and $p = 0.020$). Conversely, it is significantly higher in response to EDs for North America and South America ($p = 0.020$ and $p = 0.054$). Apart from South America and Africa, i.e. the continents with least constituents, the average number of constituents is significantly higher for MoU projects than for IASB projects. This finding suggests that great participation in response to DPDs related to MoU projects is not entirely driven by North American constituents, 79.2% of which are domiciled in the US[35].

6.2 Regression results on the impact of country characteristics

When estimating regression model (1) international and supranational constituents and countries with missing variables are excluded. The analyses in this Section, thus, cover 7,584 constituents from 52 individual countries. Panel A of Table 2 presents descriptive statistics on and Pearson and Spearman correlations between the variables used in model (1). As in Larson and Herz (2013), some independent variables are highly correlated. To check for concerns of multicollinearity we calculate the condition index and variance inflation factor (VIF) scores.

Panel B of Table 2 reports the regression results on the association between the country-level of constituents' participation and (1) the level of economic development and (2) cultural characteristics of the constituents' countries of origin. Results on the individual research variables are consistent for the full sample and for the sub-samples on IASB projects and MoU projects.

In regard to the level of economic development, results reveal that the level of constituents' participation is positively and significantly ($p < 0.01$) associated with a country's equity market capitalization, but unrelated to a country's per capita GDP. These findings only support H1a for *MAC* and seems consistent with the IASB's focus on information needs of capital markets.

[35] The Appendix gives a detailed breakdown of constituents' participation per country of origin, interest group, and project status. Per-country statistics indicate participation from 89 individual countries. 1,086 constituents (12.3% of total constituents) are classified as international (738) or supranational constituents affiliated with a particular continent (348). Most constituents are domiciled in the US (2,079 or 23.6%), followed by the UK (1,163 or 13.2%), Canada (482 or 5.5%), Australia (481 or 5.5%), and Germany (424 or 4.8%). Constituents from these five countries represent more than half of total constituents covered by this study. For 50 countries, mainly in South America and Africa, we observe less than ten constituents that participate in the IASB's due process. A Herfindahl index equal to 0.113 and a Gini coefficient equal to 0.834, however, indicate that constituents' participation is just moderately concentrated.

Table 2. Country characteristics: Correlations and regression results

Panel A: Summary statistics and correlations

	Mean	Standard deviation	No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]
CL_COUNTRY	145.846	333.853	[1]		0.699***	0.273**	−0.237*	−0.242*	0.507***	0.145	0.247*	−0.203
MAC	927,301	2,424,412	[2]	0.658***		0.160	−0.091	−0.161	0.314**	0.158	0.141	−0.346***
GDP	26,824	22,833	[3]	0.499***	0.341**		−0.594***	−0.222	0.645***	−0.166	−0.175	0.215*
PDI	55.885	22.440	[4]	−0.361***	−0.057	−0.639***		0.171	−0.566***	0.229	−0.147	−0.347***
UAI	65.423	24.976	[5]	−0.414***	−0.256*	−0.159	0.225		−0.210	−0.044	−0.424***	0.164
IDV	47.500	23.850	[6]	0.598***	0.398***	0.707***	−0.577***	−0.223		−0.005	−0.002	0.308***
MAS	51.827	20.050	[7]	0.122	0.069	−0.070	0.093	−0.197	0.049		0.072	−0.115
LANG	0.404	0.495	[8]	0.184	0.001	−0.179	−0.172	−0.419***	−0.021	0.060		−0.129
IFRS	2.596	0.774	[9]	−0.240*	−0.319**	0.269*	−0.324**	0.151	0.290**	−0.143	−0.117	

Panel B: Regression results on the level of constituents' participation per country of origin

		Full sample			IASB			MoU		
	Expected sign	Beta	*p*-value	VIF	Beta	*p*-value	VIF	Beta	*p*-value	VIF
MAC	+	0.806***	<0.001	1.503	0.385***	0.003	1.503	0.869***	<0.001	1.503
GDP	+	0.011	0.897	2.420	0.003	0.983	2.420	0.012	0.862	2.420
PDI	–	0.006	0.950	2.117	0.034	0.820	2.117	−0.002	0.972	2.117
UAI	–	−0.005	0.939	1.456	−0.084	0.494	1.456	0.014	0.791	1.456
IDV	+	0.243***	0.004	2.362	0.455***	0.005	2.362	0.182***	0.009	2.362
MAS	+	0.012	0.835	1.129	0.051	0.636	1.129	0.002	0.968	1.129
LANG	+	0.136**	0.043	1.553	0.186	0.148	1.553	0.118**	0.034	1.553
IFRS	+	0.020	0.765	1.615	−0.017	0.895	1.615	0.028	0.617	1.615
Adjusted R^2			0.860			0.479			0.903	
F			40.212***			6.852***			60.627***	
Condition index			24.504			24.504			24.504	
N			52			52			52	

Notes: ***, **, * Significant at the 1%, 5%, and 10% levels, respectively. Panel A present Pearson correlations/Spearman correlations above/under the diagonal. Panel B presents regression results using *CL_COUNTRY* (number of CLs per country submitted to the IASB) as dependent variable. All variables are defined in Section 5.

In regard to the cultural characteristics (*PDI*, *UAI*, *IDV*, and *MAS*), results reveal that only the country-score on individualism is significantly associated with the level of constituents' participation ($p < 0.01$). As expected, the coefficient on *IDV* is positive. This finding suggests that high levels of constituents' involvement in a domestic political system as implied high levels of *IDV* are also reflected in high levels of constituents' participation in the IASB's due process. As we find no significant coefficients on the remaining cultural characteristics, our evidence supports H1b only in terms of individualism.[36]

Taken together, the results indicate that *MAC* as an economic characteristic and *IDV* as a cultural characteristic each have incremental explanatory power with respect to the country-level of constituents' participation.[37] This finding goes beyond Larson and Herz (2013) and Jorissen et al. (2013), who either study the impact of economic or cultural characteristics, respectively. Particularly, we provide evidence that cultural (economic) differences matter in explaining constituents' participation even after controlling for a country's economic (cultural) characteristics.

Results on our control variables reveal a positive and significant association between language proficiency (*LANG*) and the level of constituents' participation for the full sample of and the sub-sample of MoU projects ($p < 0.05$). The finding suggests that language barriers at least

[36] Since our findings contrast with those of Jorissen et al. (2006) who find a negative impact of *PDI* and of Jorissen et al. (2013) who suggest a negative impact of *UAI*, we run additional regressions. To test for the explanatory power of *IDV*, we first estimate model (1) excluding the other cultural variables (*PDI*, *UAI*, and *MAS*). Across the board, we obtain higher adjusted R^2 values. Second, when we exclude *IDV* from model (1), neither coefficient on the remaining cultural variables is significant in any sample and adjusted R^2 values decrease. In either specification, the results on the level of economic development remain virtually unchanged. We conclude that, among Hofstede's (2001) cultural characteristics, only *IDV* has substantial explanatory power in our setting.

[37] When we estimate model (1) excluding the four cultural variables, coefficients on *MAC* remain positive and significant at 1%, and coefficients on *GDP* become significant at 5%. When we estimate the model without the two variables on the level of economic development, the coefficients on *IDV* remain positive and significant at 1%, and no other cultural characteristic is substantially associated with the level of constituents' participation. In either specification, we obtain lower adjusted R^2 values.

partly hamper constituents' participation. Across the board, results do not indicate incremental explanatory power of a country's reliance on IFRS on the country-level of constituents' participation. This finding suggests that a country's reliance on IFRS does not imply that its constituents formally engage in the IASB's due process. One explanation for this result – further addressed in the robustness tests below – could relate to the high level of participation by US constituents.

Model (1) explains a large proportion of the variation in the country level of constituents' participation. Adjusted R^2 values that range from 47.9% to 90.3%. F statistics are significant at 1% in all regressions indicating a sound model fit. The condition indices and the VIFs are all below the critical values, i.e. condition index < 30 and VIF < 3 (Belsley et al., 1980; Kennedy, 2008). This indicates that multicollinearity is not a substantial problem.

6.3 Regression results on the impact of DPD characteristics

The regression analysis on the impact of DPD characteristics on the level of constituents' participation includes 56 DPDs and all 8,825 CLs submitted to the IASB. Panel A of Table 3 presents descriptive data on and Pearson and Spearman correlations between the independent variables used in regression model (2). The mean DPD offers 8.821 input opportunities (*INPUTOP*) and is one of 3.250 DPDs related in a particular project (*COMPLEX*). While the two research variables are not significantly correlated, we observe some high correlations between some of the independent variables. Condition indices and VIFs reported in Panel B, however, suggest the absence of severe multicollinearity.

Table 3. DPD characteristics: Correlations and regression results

Panel A: Summary statistics and correlations

	Mean	Standard deviation	No.	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
CL_DOCUMENT	157.589	157.737	[1]		0.501***	–0.020	–0.157	–0.162	–0.048	0.210	0.378***
INPUTOP	8.821	7.189	[2]	0.572***		0.038	–0.203	–0.221	–0.601***	0.470***	0.374***
COMPLEX	3.250	2.306	[3]	–0.085	0.036		–0.183	0.059	0.051	0.000	0.321**
DISC	0.125	0.334	[4]	–0.207	–0.178	–0.188		–0.165	0.176	–0.241*	0.027
TECH	0.161	0.371	[5]	–0.211	–0.316**	0.131	–0.165		0.077	–0.093	-0.373***
ED	0.821	0.386	[6]	–0.274**	-0.490***	0.015	0.176	0.077		–0.402***	–0.060
DURA	4.643	1.470	[7]	0.441***	0.510***	0.046	–0.274**	–0.073	–0.395***		0.214
CONV	0.536	0.503	[8]	0.542***	0.463***	0.273**	0.027	–0.373***	–0.060	0.228*	

Panel B: Regression results on the level of constituents' participation per DPD

		Full sample			IASB			MoU		
	Expected sign	Beta	*p*-value	VIF	Beta	*p*-value	VIF	Beta	*p*-value	VIF
INPUTOP	+	0.626***	<0.001	2.090	0.788***	<0.001	1.983	0.685***	0.007	1.883
COMPLEX	-	–0.140	0.265	1.227	–0.123	0.348	1.195	–0.185	0.338	1.267
DISC	+/-	–0.127	0.306	1.186	–0.074	0.566	1.159	–0.151	0.443	1.335
TECH	+/-	0.018	0.890	1.249	0.050	0.698	1.177	0.107	0.576	1.267
ED	+/-	0.363**	0.017	1.705	0.066	0.667	1.644	0.601**	0.025	2.237
DURA	+	–0.015	0.908	1.380	0.110	0.438	1.406	0.133	0.553	1.732
CONV	+	0.224	0.122	1.603						
Adjusted R²			0.306			0.656			0.183	
F			4.468***			8.943***			2.085*	
Condition index			15.400			12.475			20.211	
N			56			26			30	

Notes: ***, **, * Significant at the 1%, 5%, and 10% levels, respectively. Panel A present Pearson correlations/Spearman correlations above/under the diagonal. Panel B presents regression results using *CL_DOCUMENT* (number of CLs per DPD submitted to the IASB) as dependent variable. All variables are defined in Section 5.

Panel B of Table 3 reports the regression results on the association between the level of constituents' participation in response to a DPD and *INPUTOP* and *COMPLEX*. For the full sample and for the sub-samples on IASB projects and MoU projects, we find consistent results on the two research variables. First, there is a positive association between the level of constituents' participation and the input opportunities offered by a DPD that is significant at 1%. This finding supports H2a. It suggests that a greater number of input opportunities offered relates to increased incentives of constituents to participate in the IASB's due process by submitting CLs (Georgiou, 2010). Second, we consistently find a negative, yet insignificant association between the level of constituents' participation and the complexity of a project. This finding does not support H2b and suggests that increased costs of participation due to the complexity of a project do not substantially impair constituents' incentives to respond to a DPD.

The insignificant coefficients on the control variables *DURA*, *DISC*, and *TECH* imply that neither the length of the comment period nor the type of accounting issue addressed are associated with the level of constituents' participation. For the full sample and for the sub-sample of MoU projects, we find a positive and significant association between the level of constituents' participation and *ED* ($p < 0.05$). This finding seems to be inconsistent with Sutton (1984) and supports Dobler and Knospe (2016). Interestingly, the coefficient on *CONV* is positive but insignificant ($p = 0.122$). This finding indicates that MoU projects are not substantially associated with the level of constituents' participation per DPD in our multivariate analyses.

Adjusted R^2 values range from 18.3% to 65.6% and imply that model (2) explains a medium amount of the variation in the level of constituents' participation per DPD. F statistics are significant in all regressions, indicating a sound model fit.

6.4 Additional analysis and robustness tests

Given the purpose of our paper, our main regression analyses do not consider interest group affiliation. To assess whether interest group affiliation affects our results, we estimate our regression models (1) and (2) separately for each interest group. Table 4 presents the results.[38]

Panel A of Table 4 reports per-interest group results of regression model (1). As in the main analyses, only two research variables (*MAC* and *IDV*) are significantly associated with the level of constituents' participation. Consistent with Sutton's (1984) argument of relative wealth, regulators are the only interest group for which we obtain an insignificant coefficient on *MAC* ($p = 0.833$). This finding suggests that the level of regulators' participation in the IASB's due process is not related to the level of economic development of their countries of origin. With the exception of users and individuals, i.e. the interest groups with least constituents in our study, the positive and significant association between *IDV* and the level of constituents' participation persists across interest groups.

Per-interest group results of regression model (2), presented in Panel B of Table 4, consistently reveal positive and significant coefficients on *INPUTOP* ($p \leq 0.030$) and insignificant, yet negative coefficients on *COMPLEX* across the board. The findings are consistent with those of our main analyses. Noteworthy, there is positive and significant association between *CONV* and the level of participation of users, accountants, and regulators. This finding suggests that MoU projects are incrementally associated with higher levels of participation for each of these interest groups; it holds when we exclude US constituents. In sum, our additional analyses yield similar results across the interest groups.

In order to test the robustness of our main results on the full sample and sub-samples of IASB and MoU projects, we conduct a number of sensitivity analyses. First, prior research suggests additional country-level characteristics that might influence the country-level of constituents' participation in the IASB's due process through CLs (Jorissen et al., 2013; Larson and Herz, 2013). To check the sensitivity of the results of model (1), we include each of the six Worldwide Governance Indicators issued by the Worldbank (2016) to further address institutional characteristics, and the UN Human Development Index to further address economic characteristics.[39] Each of these variables is separately included in model (1) due to concerns with multicollinearity. Results show no significant association between each of the variables and the country-level of constituents' participation (VIFs between 1.204 and 5.058). The results of our main analysis hold.

Second, the level of constituents' participation potentially differs in the status of a DPD in the IASB's due process, i.e. whether it is a DP or an ED (Sutton, 1984; Giner and Arce, 2012). While model (2) controls for ED, model (1) does not. When estimating each model for constituents' participation in response to EDs only, our key results remain virtually unchanged.

Third, given small sample sizes we check whether our results are affected by outliers. To identify outliers, we calculate Cook's distance measure (Chatterjee and Simonoff 2013; Weisberg 2013). For models (1) and (2), Cook's distance measures are all below 0.500, suggesting no influential outliers. Box plots, however, suggest that four countries (model (1)) and four DPDs (model (2)) are outliers.[40] After removing these outliers, the regression results are very similar to those presented in Panels B of Tables 2 and 3, respectively. There are only two noteworthy changes. In model (1), the coefficients on *LANG* all become insignificant. This change seems to relate to the exclusion of the UK and the US that are characterized by high levels of constituents' participation and language proficiency. In model (2), the positive coefficient on *CONV* becomes significant at 1%, suggesting that MoU projects are associated with high levels of participation as expected. The key results of our main analyses hold.

Fourth, related research suggests that constituents from the US and from the EU, each, have special incentives to participate in the IASB's due process (Jorissen et al., 2013; Larson and Herz, 2013). In order to assess whether US and EU constituents drive our results, we split the research population. When we estimate model (1) separately for non-US, for EU, and for non-US/non-EU countries, results qualitatively only differ from those reported in Panel B of Table 2 in two regards.[41] The coefficients on *IDV* become insignificant for constituents from EU member countries. This finding seems to relate rather similar cultural characteristics in the EU. More importantly, we find positive and significant associations between both, *MAC* ($p < 0.05$) as well as *GDP* ($p < 0.10$) and the level of participation of non-US/non-EU constituents. This finding suggests that – apart from the US and the EU – the country-level of constituents' participation increases in the level of economic development as predicted by H1a. When estimating model (2) separately for constituents from the US, from the EU, and from the rest of the world, results are qualitatively the same as

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[38] Untabulated condition indices and VIFs suggest that multicollinearity is not a substantial problem.

[39] The Worldwide Governance Indicators are (1) voice and accountability, (2) political stability and absence of violence, (3) government effectiveness, (4) regulatory quality, (5) rule of law, and (6) control of corruption.

[40] The four country outliers identified are China, Japan, the UK, and the US The four DPD outliers identified are DP *Credit Risk in Liability Measurement*, DP *Fair Value Measurements*, ED *Leases*, and ED *Revenue from Contracts with Customers*.

[41] As in our main analyses, the coefficient on the control variable *IFRS* is insignificant for either specification. Thus, the implication that a country's reliance on IFRS does not necessarily mean that its constituents participate in the IASB's due process is not merely due to the high level of participation by US constituents.

those presented in Panel B of Table 3. The only noteworthy change relates to the results for the level of EU constituents' participation in response to DPDs related to IASB projects. Beyond a positive and significant coefficient on *INPUTOP* ($p < 0.001$), we here find a negative and significant coefficient on *COMPLEX* ($p = 0.035$) as predicted by H2b.

Table 4. Regression results per interest group

Panel A: Regression results on the level of interest groups' participation per country of origin

	Preparers		**Users**		**Accountants**		**Regulators**		**Individuals**	
Dependent variable	***CL_COUNTRY***		***CL_COUNTRY***		***CL_COUNTRY***		***CL_COUNTRY***		***CL_COUNTRY***	
	Beta	***p*-value**	**Beta**	***p*-value**	**Beta**	***p*-value**	**Beta**	***p*-value**	**Beta**	***p*-value**
MAC	0.785***	<0.001	0.802***	<0.001	0.499***	<0.001	−0.032	0.833	0.967***	<0.001
GDP	0.019	0.832	0.024	0.834	−0.057	0.714	0.178	0.363	−0.024	0.742
PDI	−0.002	0.982	0.006	0.956	−0.024	0.867	0.160	0.381	−0.022	0.748
UAI	−0.005	0.948	0.015	0.866	−0.107	0.375	−0.037	0.805	0.034	0.538
IDV	0.254***	0.007	0.183	0.113	0.300*	0.055	0.539***	0.007	0.004	0.958
MAS	0.038	0.547	0.018	0.818	0.056	0.598	−0.038	0.773	−0.059	0.233
LANG	0.110	0.137	0.117	0.206	0.245*	0.052	0.174	0.266	0.072	0.215
IFRS	0.024	0.750	0.063	0.501	0.048	0.704	−0.171	0.284	0.040	0.497
Adjusted R²		0.827		0.726		0.503		0.214		0.893
F		31.439***		17.865***		7.461***		2.735**		54.120***
Condition index		24.504		24.504		24.504		24.504		24.504
N		52		52		52		52		52

Panel B: Regression results on the level of interest groups' participation per DPD

	Preparers		**Users**		**Accountants**		**Regulators**		**Individuals**	
Dependent variable	***CL_DOCUMENT***		***CL_DOCUMENT***		***CL_DOCUMENT***		***CL_DOCUMENT***		***CL_DOCUMENT***	
	Beta	**p-value**	**Beta**	**p-value**	**Beta**	**p-value**	**Beta**	**p-value**	**Beta**	**p-value**
INPUTOP	0.609***	<0.001	0.646***	<0.001	0.484***	0.005	0.560***	<0.001	0.432**	0.030
COMPLEX	−0.133	0.292	−0.112	0.280	−0.196	0.122	−0.090	0.392	−0.095	0.525
DISC	−0.137	0.268	−0.089	0.379	−0.082	0.507	−0.140	0.178	−0.073	0.617
TECH	−0.035	0.782	0.021	0.838	0.075	0.553	0.255**	0.019	0.049	0.744
ED	0.332**	0.028	0.230*	0.062	0.388**	0.011	0.411***	0.002	0.279	0.118
DURA	−0.056	0.674	0.082	0.453	0.230*	0.089	0.080	0.472	−0.028	0.859
CONV	0.232	0.110	0.325***	0.008	0.246*	0.092	0.469***	<0.001	0.066	0.699
Adjusted R²		0.306		0.531		0.301		0.512		0.012
F		4.459***		9.907***		4.390***		9.227***		1.098
Condition index		15.400		15.400		15.400		15.400		15.400
N		56		56		56		56		56

Notes: ***, **, * Significant at the 1%, 5%, and 10% levels, respectively. All variables are defined in Section 5.

Fifth, since our paper examines the level of constituents' participation over the period 2006–2012, the results could be affected by the financial crisis (FCAG, 2009; Bengtsson, 2011). To control for the potential impact of the financial crises, we estimate model (2) including year dummy variables and find that our results remain unchanged. Moreover, we estimate model (1) separately for each year. For the full sample and for the sub-sample of MoU projects, we obtain per-year results similar to those presented in Table 2, Panel B. For IASB projects, however, the coefficients on *MAC* and *GDP* are insignificant for 2007, 2008, and 2009, i.e. periods affected by the financial crisis. This finding seems to suggest that the country-level of constituents' participation is not associated with the level of economic development in crisis periods but constantly related to the level of individualism.

7. CONCLUSIONS

Adopting a multi-issue/multi-period approach, this paper provides new insights into the impact of country and DPD characteristics on constituents' formal participation in the IASB's standard-setting process through CLs. Our results contribute to existing research in international accounting standard-setting, have implications for the legitimacy of the IASB and suggest avenues to stimulate constituents' participation in the due process.

Descriptive and univariate results indicate differences in constituents' participation between interest groups and geographic origins where preparers of financial statements and European constituents participate most. While largely consistent with predictions derived from Sutton's

(1984) framework and prior evidence, these findings suggest threats to the IASB's input legitimacy that prevail in recent periods. Across interest groups and continents of origin, we find more participation in response to DPDs related to MoU projects as opposed to projects solely conducted by the IASB. This finding indicates that MoU projects affiliated with the convergence on IFRS and US GAAP attract more attention among constituents world-wide and not only among US constituents. Overall, the data indicate that differences in constituents' participation are related to characteristics of constituents' origin and of DPDs.

Among an array of economic and cultural variables, we find a country's market capitalization and its society's level of individualism as key drivers of the *country-level of constituents' participation*, and each of the two variables has explanatory power to the other. The positive impact of market capitalization is consistent with the IASB's focus on the information needs of capital markets. When excluding the US and the EU, however, there is also a positive impact of per capita GDP. For this sub-sample, Sutton's (1984) argument that participation increases in relative wealth seems to hold. Since a country's level of individualism is affiliated with the involvement of individuals in the political system, the positive impact of individualism on the country-level of constituents' participation comes as expected. What is surprising is that none of the other cultural characteristics nor a country's institutional reliance on IFRS is related to the level of constituents' participation. Our evidence is in line with the existence of language barriers inhibiting constituents' participation in non-English speaking countries. This finding support views suggesting to publish translations of DPDs in order to stimulate participation (Jorissen et al., 2013).

Our analyses reveal that the *level of constituents' participation per DPD* is positively associated with the input opportunities offered by a DPD while unassociated with the complexity of the project it is affiliated with. In regard to the first finding, it is argued here that a constituent can choose to provide input on single questions posed based on per input opportunity cost-benefit considerations. Then, the greater the number of distinct input opportunities offered, the more likely it is that benefits exceed costs of providing input on at least one question. This finding suggests that by increasing the number of distinct input opportunities in its DPDs, the IASB may stimulate constituents' participation in an attempt to enhance its input legitimacy. The second finding suggests that increased costs of participation related to complex standard-setting projects do not substantially decrease the constituents' incentives to participate in the IASB's due process. The IASB's practice to split complex projects in different phases does not seem to substantially influence the level of constituents' participation. In turn, our findings do not support views suggesting that a longer comment period stimulate more constituents to participate (Larson and Herz, 2013).

Notwithstanding the contributions to international standard-setting research and implications for the IASB, our study has several *limitations*. First, although our study is based on more CLs than prior research, sample size in our regressions is limited to the number of DPDs and constituents' countries of origin. Extending the research period would be warranted to increase sample size and to investigate changes in the determinants of constituents' participation, e.g. related to the declining US interest in international accounting standard setting (SEC, 2014). Second, by focusing on CLs, our study is limited to one major method of formal participation in the IASB's due process. While the use of CLs is considered to be closely linked to the use of other participation methods (Georgiou, 2004, 2010), we are unable to control for other participation methods in our multi-issue/multi-period analysis. Finally, the study considers neither the content of CLs nor their lobbying impact upon the IASB. Such analyses are warranted to investigate constituents' lobbying towards the IASB in more depth (Dobler and Knospe, 2016). Lack thereof, however, does not impair this paper's results on constituents' formal participation in the international standard-setting process.

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Appendix Constituents' participation as measured by CLs per country of origin, interest group, and project status

	Preparers		Users		Accountants		Regulators		Individuals		Total		IASB		MoU	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Europe																
EU member																
Austria	19	0.46	1	0.15	1	0.06	31	2.17	3	0.31	55	0.62	16	0.65	39	0.61
Belgium	43	1.03	18	2.63	1	0.06	32	2.24	2	0.21	96	1.09	19	0.78	77	1.21
Bulgaria									1	0.10	1	0.01			1	0.02
Cyprus					1	0.06			1	0.10	2	0.02	1	0.04	1	0.02
Czech Republic	4	0.10							3	0.31	7	0.08	3	0.12	4	0.06
Denmark	23	0.55	2	0.29	8	0.51	15	1.05			48	0.54	20	0.82	28	0.44
Finland	11	0.26	1	0.15					11	1.13	23	0.26	5	0.20	18	0.28
France	232	5.57	20	2.92	53	3.36	57	4.00	6	0.62	368	4.17	109	4.45	259	4.06
Germany	250	6.00	29	4.23	44	2.79	75	5.26	26	2.67	424	4.80	115	4.70	309	4.85
Greece	2	0.05									2	0.02			2	0.03
Ireland	25	0.60	2	0.29	67	4.25	1	0.07	2	0.21	97	1.10	40	1.63	57	0.89
Italy	26	0.62	4	0.58	8	0.51	38	2.66	8	0.82	84	0.95	33	1.35	51	0.80
Luxembourg	6	0.14	2	0.29			1	0.07			9	0.10	1	0.04	8	0.13
Malta	1	0.02							1	0.10	2	0.02			2	0.03
Netherlands	38	0.91	1	0.15	3	0.19	59	4.14	19	1.95	120	1.36	39	1.59	81	1.27
Poland	1	0.02					13	0.91	2	0.21	16	0.18	5	0.20	11	0.17
Portugal	4	0.10							1	0.10	5	0.06	4	0.16	1	0.02
Romania			1	0.15	4	0.25	2	0.14			7	0.08	2	0.08	5	0.08
Slovakia							1	0.07			1	0.01			1	0.02
Spain	77	1.85	4	0.58	2	0.13	23	1.61	1	0.10	107	1.21	22	0.90	85	1.33
Sweden	68	1.63	3	0.44	53	3.36	45	3.16	3	0.31	172	1.95	59	2.41	113	1.77
UK	645	15.49	129	18.83	242	15.35	78	5.47	69	7.09	1,163	13.18	364	14.87	799	12.53
Total EU member	**1,475**	**35.42**	**217**	**31.68**	**487**	**30.88**	**471**	**33.03**	**159**	**16.30**	**2,809**	**31.83**	**857**	**35.01**	**1,952**	**30.61**
Jersey			1	0.15							1	0.01			1	0.02
Liechtenstein	1	0.02									1	0.01			1	0.02
Norway	19	0.46			1	0.06	48	3.37			68	0.77	33	1.35	35	0.55
Russian Federation	20	0.48			7	0.44	16	1.12	3	0.31	46	0.52	23	0.94	23	0.36
Switzerland	245	5.88	4	0.58	1	0.06	6	0.42			256	2.90	72	2.94	184	2.89
Ukraine							1	0.07			1	0.01	1	0.04		
Supranational	96	2.31	72	10.51	54	3.42	111	7.78			333	3.77	98	4.00	235	3.69
Total Europe	**1,856**	**44.57**	**294**	**42.92**	**550**	**34.81**	**653**	**45.79**	**162**	**16.55**	**3,515**	**39.81**	**1,084**	**44.24**	**2,431**	**38.11**

Appendix continued

North America																
Bermuda	10	0.24									10	0.11	7	0.29	3	0.05
Canada	308	7.40	16	2.34	43	2.73	98	6.87	17	1.75	482	5.46	187	7.64	295	4.63
Mexico	7	0.17	1	0.15	2	0.13	42	2.95			52	0.59	20	0.82	32	0.50
US	1,098	26.37	174	25.40	176	11.16	33	2.31	598	61.46	2,079	23.56	221	9.03	1,858	29.14
Total North Am.	**1,423**	**34.17**	**191**	**27.88**	**221**	**14.01**	**173**	**12.13**	**615**	**63.21**	**2,623**	**29.72**	**435**	**17.77**	**2,188**	**34.31**
South America																
Argentina	2	0.05					6	0.42	1	0.10	9	0.10	5	0.20	4	0.06
Barbados					1	0.06					1	0.01	1	0.04		
Brazil	15	0.36	2	0.29			23	1.61	8	0.82	48	0.54	15	0.61	33	0.52
Chile	4	0.10					2	0.14	11	1.13	17	0.19	6	0.25	11	0.17
Colombia									4	0.41	4	0.05	2	0.08	2	0.03
Costa Rica			1	0.15					1	0.10	2	0.02	2	0.08		
Ecuador			1	0.15							1	0.01	1	0.04		
El Salvador									1	0.10	1	0.01	1	0.04		
Jamaica					5	0.32					5	0.06	2	0.08	3	0.05
Puerto Rico			1	0.15							1	0.01			1	0.02
Trinidad & Tobago	2	0.05									2	0.02	1	0.04	1	0.02
Uruguay									1	0.10	1	0.01	1	0.04		
Venezuela	1	0.02	1	0.15							2	0.02	2	0.08		
Supranational							5	0.35			5	0.06	3	0.12	2	0.03
Total South Am.	**24**	**0.58**	**6**	**0.88**	**6**	**0.38**	**36**	**2.52**	**27**	**2.77**	**99**	**1.12**	**42**	**1.72**	**57**	**0.89**
Africa																
Angola	1	0.02									1	0.01			1	0.02
Botswana					1	0.06					1	0.01			1	0.02
Cameroon	4	0.10									4	0.05	1	0.04	3	0.05
Congo	1	0.02									1	0.01			1	0.02
Cote d'Ivoire	2	0.05									2	0.02			2	0.03
Kenya					14	0.89	1	0.07			15	0.17	6	0.25	9	0.14
Liberia	3	0.07									3	0.03			3	0.05
Malawi							2	0.14			2	0.02	2	0.08		
Mauritius									1	0.10	1	0.01	1	0.04		
Nigeria	12	0.29	3	0.44	1	0.06			1	0.10	17	0.19	2	0.08	15	0.24
Rwanda					6	0.38					6	0.07	2	0.08	4	0.06
Sierra Leone							1	0.07			1	0.01	1	0.04		
South Africa	79	1.90	2	0.29	66	4.19	2	0.14	9	0.92	158	1.79	71	2.90	87	1.36
Tanzania							2	0.14			2	0.02	2	0.08		
Tunisia	1	0.02	1	0.15							2	0.02	1	0.04	1	0.02
Uganda	1	0.02									1	0.01	1	0.04		
Zambia					28	1.78	1	0.07			29	0.33	13	0.53	16	0.25
Zimbabwe					3	0.19	1	0.07			4	0.05	4	0.16		
Supranational	3	0.07									3	0.03			3	0.05
Total Africa	**107**	**2.57**	**6**	**0.88**	**119**	**7.55**	**10**	**0.70**	**11**	**1.13**	**253**	**2.87**	**107**	**4.37**	**146**	**2.29**
Asia/Oceania																
Australia	260	6.24	17	2.48	73	4.63	116	8.13	15	1.54	481	5.45	152	6.21	329	5.16
Bangladesh	1	0.02									1	0.01	1	0.04		
China	88	2.11	7	1.02	11	0.70	27	1.89	4	0.41	137	1.55	54	2.21	83	1.30
Fiji							1	0.07			1	0.01	1	0.04		
Hong Kong	13	0.31			50	3.17					63	0.71	21	0.86	42	0.66
India	63	1.51	2	0.29	25	1.59	17	1.19	21	2.16	128	1.45	32	1.31	96	1.51
Indonesia					1	0.06	2	0.14			3	0.03	2	0.08	1	0.02
Iraq									1	0.10	1	0.01	1	0.04		
Iran					1	0.06	1	0.07			2	0.02	1	0.04	1	0.02
Israel	2	0.05			12	0.76	10	0.70	1	0.10	25	0.28	4	0.16	21	0.33
Japan	125	3.00	15	2.19	40	2.54	47	3.30	29	2.98	256	2.90	55	2.25	201	3.15
Jordan									1	0.10	1	0.01			1	0.02
Korea	12	0.29	2	0.29	11	0.70	64	4.49	1	0.10	90	1.02	37	1.51	53	0.83
Kyrgyzstan	3	0.07			1	0.06					4	0.05			4	0.06
Lebanon									1	0.10	1	0.01			1	0.02
Malaysia	4	0.10			1	0.06	57	4.00			62	0.70	27	1.10	35	0.55
New Zealand	41	0.98	3	0.44	12	0.76	56	3.93	14	1.44	126	1.43	37	1.51	89	1.40
Pakistan					46	2.92			5	0.51	51	0.58	21	0.86	30	0.47
Philippines	1	0.02					2	0.14			3	0.03	2	0.08	1	0.02
Qatar									1	0.10	1	0.01			1	0.02
Saudi Arabia	2	0.05			1	0.06			2	0.21	5	0.06	5	0.20		
Singapore	17	0.41	2	0.29	15	0.95	51	3.58	18	1.85	103	1.17	34	1.39	69	1.08
Taiwan	1	0.02					11	0.77			12	0.14	4	0.16	8	0.13
Thailand			7	1.02	9	0.57	1	0.07			17	0.19	8	0.33	9	0.14
Turkey	1	0.02					1	0.07	1	0.10	3	0.03	1	0.04	2	0.03
UAE	1	0.02					6	0.42	3	0.31	10	0.11	5	0.20	5	0.08
Supranational							10	0.70			10	0.11	1	0.04	9	0.14
Total Asia/Oceania	**635**	**15.25**	**55**	**8.03**	**309**	**19.59**	**480**	**33.66**	**118**	**12.13**	**1,597**	**18.10**	**506**	**20.67**	**1,091**	**17.11**
International	**119**	**2.86**	**133**	**19.42**	**372**	**23.59**	**74**	**5.19**	**40**	**4.11**	**738**	**8.36**	**274**	**11.19**	**464**	**7.28**
Total	**4,164**	**100.00**	**685**	**100.00**	**1,577**	**100.00**	**1,426**	**100.00**	**973**	**100.00**	**8,825**	**100.00**	**2,448**	**100.00**	**6,377**	**100.00**

Notes: *IASB* = projects solely conducted by the IASB; *MoU* = projects that are part of the Memorandum of Understanding.

THE ARGUMENT FOR ROBUST COMPETITION SUPERVISION IN DEVELOPING AND TRANSITION COUNTRIES

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Abstract

The article discusses first the differences between market economic models, socialist or planned economies, and economies controlled by monopolies or cartels, to make the case for competition supervision. Subsequently it argues for a broad approach to competition supervision - beyond a narrow view of antitrust law. The second part of the paper discusses monopoly or dominant position and the criteria to measure them. It reviews the reasons for merger control as a preventive step against monopoly or dominant position. Finally it discusses the issues related to collusion in the form of cartels and how to detect them. The third part of the paper focuses on the best ways for developing and transition countries to introduce or reinforce comprehensive competition supervision: Functioning institutions and how they have to be empowered and structured; priorities to be set; how competition oversight has to be embedded in the legal system, including court review; and why effective enforcement is so important and how it can be promoted. In an annex** there are links to some 75 countries which have newly introduced competition laws in the past 25 years and their legislative materials. Finally, there are links to another 30 countries which have substantially revised their legislative bases in the same time frame.

Keywords: Robust Competition Supervision, Monopoly Regulation, Antitrust Law

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**available from the author.

1. THE ECONOMICS OF COMPETITION

It has been said that there is no end to human greed. Pretty much everything else in the world, in particular those things that we consider positive and/or desirable, are in short supply. When something is in short supply, it means that there is not enough of it available to satisfy everyone who would like to have it. We may be able to produce more of one thing but only at the expense of another thing. For example, we may be able to satisfy more people who desire clean air by closing a factory that causes pollution or by forcing it to install expensive filter equipment. However, both of these measures, while increasing the supply of one thing, clean air, decrease the supply of one or more other things, in this case some or all of the jobs in the factory and some or all of the goods it is producing. One of the most important problems facing human societies, therefore, is the need to make decisions about how much to produce of everything and how to distribute the limited production among the many who want to have a share of it. This is called the problem of allocation of limited resources.

Economists[42] have long argued, and 20th century history has ultimately proven, that market econo-

[42] Many lawyers - and at least some of my readers - very quickly get uncomfortable with any form of economic analysis, in particular if it includes charts, let alone numbers. All too often, the very reason why we went to law school in the first place is that it seemed the furthest from anything that could require mathematics. The reality is not quite like that, however. Whether in tax law, when we have to understand the financial implications of different ways of structuring a corporation or international business transaction, or in the calculation of damages in tort law, a good lawyer will always think about the economic implications of his or her advice for the client. This is all the more true in competition law, where economic analysis has become very important for the way regulatory authorities and courts will analyze conduct or

mies are more efficient than non-market economies at making these decisions.[43] In a non-market economy, decisions about allocation of scarce resources (capital, labor, goods, etc.) are either made by the state or by a small number of private actors. If these decisions are made by the state, we speak of a planned economy, sometimes also called a socialist or communist economy. If the decisions are made by a small number of private actors, they have to be in a position of monopoly or dominance or they have to collude in the form of cartels in order to have impact. By contrast, the allocation of scarce resources in a market economy is based on large numbers of decisions made by large numbers of buyers and sellers, who meet in the marketplace every day to negotiate deals, each of which individually does not significantly influence the overall economy.[44]

The problem with all of these decisions – market economy or not – is that the decision-makers do not necessarily pursue the public good, that they have limited information, and that the parameters in the market place change all the time. Thus, from a point of view of economic efficiency, we can say that the problem is that a certain number of decisions will inevitably be *wrong*. Either those decisions will promote private benefit at the expense of public good, or they will try to promote the public good but fail to do so in the best possible way because of insufficient factual information or insufficient understanding of the optimal solution for the respective problem. Insufficient understanding may be an objective problem of predicting the future or a subjective problem of not understanding the present. For the purposes of this article, both types of decisions shall be defined as *mistakes*, namely those that promote short term and/or limited private gain over long term and/or larger public gain, and those that may pursue the best overall result but turn out to be inferior at doing that. Both types of mistakes cause overall loss to society.

In our globalizing world, national economies are no longer predominantly about the allocation of resources on the national level. They are also competing for resources on the global level, for example for profitable sales opportunities in foreign markets, for deals to buy natural or other resources abroad, and for decisions about foreign direct investment. At the same time, countries have become more interdependent, and decisions in one country may directly affect the availability and allocation of resources, hence ultimately the level of prosperity, in another country. This magnifies the impact of good or bad decisions and the importance of making as few mistakes as possible. To illustrate the point, compare the strategic decisions taken by Nissan and General Motors towards the next generation of electric automobile. While the Nissan Leaf runs entirely on electricity, which limits its range to the life of the battery, the Chevy Volt comes with a back-up engine running on gasoline so that it can operate beyond the life of its battery. However, the second engine in the Volt comes at the steep price of an additional $8,000 on the sticker price. The next couple of years will show who made the better bet and either Nissan or General Motors will sell large numbers of automobiles not only in their respective domestic markets but potentially in many countries. Although it is possible that the one type of car may appeal to one type of user and the other to another and that both companies come out as winners, it is also possible that one of them will have sunk billions of dollars in development costs into a product that does not sell (enough) and does not recover this investment. Given the low prices of gasoline and the glut of crude oil in the market in recent months, it is equally possible that neither of the cars will ever recover its development cost. Needless to say, even large automobile manufacturers with deep pockets can only afford so many of these kinds of mistakes.

It is important to understand that the problem of wrong decision-making is inherent in all economic activities, whether in a market economy or a non-market economy. As long as decisions are taken by humans, we will encounter selfish pursuit of short term private benefit at the expense of society, and we will encounter problems of incompetence and of

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practices of corporations potentially restricting competition; Cavanagh, 2013. As Morgan has pointed out, "whether or not one personally likes the implications toward which economic analysis points, a lawyer needs to understand the analysis in order to assess what the purpose and effect of a practice might be, whether the practice is likely to be challenged, and if so, how most courts today will react to it." See Morgan, 2005, at p. 5. Fortunately, there are a number of relatively accessible books for lawyers seeking to understand economic analysis of law and more particularly competition law. These include Barnes and Stout, 1992; Walker and Bishop, 2010; Calvani and Siegfried, 1988; Gellhorn et al., 2004; Hildebrand, 2009; Hylton, 2010; as well as Sullivan and Harrison, 2014.

[43] The goal would be to come as close as possible to the so-called "Pareto-optimal allocation of goods and resources." See Mueller, 2003, p. 3. A Pareto-optimum is achieved when all production factors, such as resources and other goods, know-how, labor, and capital, are allocated in such a way that any re-allocation making at least one person better off would also leave at least one person worse off. It should be noted, however, that Pareto-optimal allocation considers only the overall benefits to society. There may be many variations of Pareto-optimal allocation, each one benefitting society equally but individuals differently. For example, a certain level of employment at a factory may be the Pareto-optimum. Employing *more* workers would reduce the overall efficiency. However, employing *different* workers could well be the same from society's point of view while making a huge difference for those who now have jobs and those who do no longer.

[44] Relatively small firms in competitive markets are also called *price takers* because they do not make the prices by restricting or increasing their output. Rather, the prices are made by the market, i.e. the aggregate of all buying and selling transactions by all buyers and sellers meeting in the marketplace. If one firm would reduce its output, it would not be able to sell less for more. Instead, it would just lose sales at the market price to another firm. Only if many firms would agree to lower their output and not to pick up customers turned away by their "competitors", prices would go up. The latter, however, would be a cartel and not any more a competitive market. Very nearly every decent book on competition or antitrust law contains a discussion of price theory and competitive markets in its introductory chapters. For examples see note 1. Similar results can also be found in the public choice literature, for example in Stearns, 2003, at pp. 111-117.

predicting future developments. One may even argue that a state actor should be less incompetent, on average, than a private actor and that governments should come up with fewer wrong decisions than companies or private investors, simply because of the larger information base and other resources available to the government. However, this may be countered by the problem of ownership. While private actors and investors are using their own money and usually have to bear the consequences of their wrong decisions themselves, civil servants in the government are usually insulated from the consequences of their decisions and thus less motivated to do their best at avoiding mistakes.[45] Whether one believes that private individuals and investors are generally better than government officials at making the kind of decisions we are talking about, is a question of ideology.[46] However, what is beyond doubt and ideology is the fact that both types of actors will make mistakes. Furthermore, while the future has always been uncertain, change comes ever more quickly today, which requires that decisions are adjusted all the time to match the needs of a changing environment and prevent a good decision from becoming a mistake. The crucial question, therefore, is how different economic models deal with their mistakes and how they deal with the change that is imposed on them.

The worst model at correcting its mistakes is the economy dominated by a small number of private individuals via monopoly, dominance, or cartels. Such an economy actually *rewards* mistakes as defined above. In the absence of constraints, the private individuals can and usually will pursue their personal self-interest at the expense of public good and will prosper, while society as a whole has to pay the price. In the most extreme example of monopoly, the monopolist can and will charge super-competitive prices for its goods or services and become extremely rich. Each individual customer and society at large not only pay too much to satisfy their needs, but chances are that the absence of choice, hence competitive pressure, also results in inferior quality of the goods and services. Change, for example, in the form of technological progress, does not have to be accounted for by the monopolist, unless the very monopoly comes under threat.[47] The situation is only marginally less extreme where an individual enterprise merely has a dominant position and not a full monopoly. The case where several enterprises could compete but rather collude in the form of a cartel may be the worst possible scenario because the monopolist at least benefits from economies of scale even if they are not passed on to customers. The bottom line is in each of these cases that everybody pays a higher price for lower quality, and the economic loss of the many far outweighs the economic gains of the few.

The planned or state controlled economy is only marginally less bad at correcting its mistakes. While this economy does not actually *reward* the decision-makers for their mistakes, unless there is also corruption, it fails to adequately *punish* the mistakes. To the extent bureaucrats may be held accountable for wrong decisions, this gives them an incentive to hide those decisions, for example by deferring to committees or by suppressing data. It also gives them an incentive to avoid taking decisions in the first place, which makes governmental structures rigid and inflexible in the face of new data and/or external change. Simply speaking, planned economies will be slow to adopt decisions and even slower to correct them once they turn out to be inferior. The Soviet Union was full of examples.

This brings us to the market economy and the question why large numbers of individually small sellers negotiating with large numbers of individually small buyers should be inherently better at understanding how best to allocate resources in the present environment and how best to deal with change in the future. One could even argue that the very fact that none of the buyers or sellers is individually large naturally limits their ability to research and process today's data and to hire the most competent experts at predicting future trends. However, this would completely misunderstand the power of the market. Much like a match between a grandmaster of chess and a supercomputer, the invincible power of the market relies on its ability simply to try out every possible alternative. We may go as far as saying that the market, compared to the experts, is not very smart at all and makes lots of inferior choices. However, while the expert has to rely on his or her expertise to come up with the best possible solution, one move at a time, the market relies on an infinite number of trial and error moves to find the best possible solution. While individual buying and selling decisions in an open market place may not look very smart at all, the aggregate result of all buying and selling decisions in that market has proven superior to any other form or method of allocating scarce resources today and accounting for change tomorrow.

Market economies have their own problems, however. Two of the most important shortcomings of the market are the failure to account for

[45] This is one important reason why larger companies that are run by salaried CEOs rather than owners tend to tie the compensation of their leaders to the overall performance of the company via annual bonuses and longer term stock options. For in-depth analysis see Jensen and Murphy, 1990.

[46] Until recently, the answer seemed pretty obvious. After all, the Soviet Union had proven unable to compete with the West and collapsed and even China had turned to market economy for its remarkable growth. However, the current financial crisis has somewhat discredited Western claims of superiority and indeed, those countries that have suffered less from the crisis seem to be the ones with more government intervention in markets. Nevertheless, there has yet to be a planned economy or an economy with heavy government intervention that reaches, let alone surpasses the level of general prosperity in the Western market economies of the EU and North America. In this context, in can also be instructive to compare different schools of antitrust analysis. See, for example, Posner, 1979.

[47] A good example was the supply of end-user telephone equipment in Germany in the 1970s and early 1980s. Since Siemens was the sole – and therefore monopoly – provider licensed by the state telephone company, Germans had to deal with large mouse-grey rotary dial phones at high prices while sleek and colorful dial tone phones were already available in many more competitive markets at much lower prices. For background reading see Morgan and Webber, 1986.

externalities and the trend towards *concentration*.[48] Both of them have to be accounted for by a country that seeks to improve its economic performance, and to promote sustainable growth, overall prosperity, and the gradual reduction of income disparities.

Externalities are sometimes also called "spill-over effects". They occur when some of the costs or benefits of a decision or a deal affect natural or legal persons other than the decisionmaker(s) or the partners of the deal (Cole, 1991). For example, if a company is trying to reduce the cost of production by keeping the wages of the workers low, it may experience high turnover in the form of workers leaving for better paid positions elsewhere, as well as difficulty in recruiting skilled and motivated replacements. This would be an *internality*, as it affects the situation of the decision-maker itself. By contrast, if the same company reduces the cost of production by releasing waste water unfiltered into a nearby stream, this may have no impact on the decision-maker itself as long as there are no governmental or other sanctions. The pollution would be a *negative externality*, as it negatively affects the situation of the neighbors and other downstream users of the water.[49] As the example shows, the problem with externalities is the disconnect between those who take the decisions and those who suffer the consequences. In an unregulated market economy, there is an incentive for decision-makers to ignore negative externalities for private profit. This, in turn, creates a justify-cation for government interference in the market. If there are negative externalities, corrective action should be taken in the form of financial disincentives (taxation) and/or regulation and enforcement. Conversely, positive externalities, i.e. benefits to third parties other than the decision-maker(s) or partners of a deal, can be a justification for government subsidies.[50]

Concentration is the problem of individuals who prefer to cooperate rather than compete. The ideal market is one of perfect competition,[51] characterized by an infinite number of small sellers constantly negotiating deals with an infinite number of small buyers (see figure 1), where transactions costs tend towards zero and full information transparency prevails.

In such a market,[52] each individual producer/seller is in direct and open competition with every other producer/seller and additional sales will go to those who offer the highest quality product at the lowest price. Since transparency is a given, consumers can actually identify the highest quality and lowest price and since transactions costs are negligible, they can then go and contract with the supplier who offers that quality and price, regardless of distance.

Perfect competition is rarely found in reality, of course. The number of producers or sellers and the number of consumers or buyers is rarely infinite. More importantly, transparency is limited since products may not be entirely comparable and consumer time for price and quality research is limited.[53] Finally, transaction costs usually go up when transactions are done over a distance and involve credit financing and other complications. More realistically, therefore, is to speak of *workable* competition or *effective competition*[54] in markets where there are more than a few producers or sellers and more than a few consumers or buyers, where there is a reasonably good level of transparency, and where the transaction costs have little or no influence on purchasing decisions. The terms workable or effective competition signal that competition in these markets may not be perfect but it is generally working or effective enough to secure the general push for producers and sellers to offer the highest possible quality at the lowest possible price today and in the foreseeable future.

[48] Externalities as well as monopoly or market power are typically among the key market failures discussed in economics and public choice literature. See, for example, Cooter and Ulen, 2007, at pp. 43-45.

[49] Krugman and Wells, 2006, dedicate an entire chapter of their well-known textbook to negative externalities using the example of acid rain caused by coal burning power plants and other polluters, at pp. 455-474.

[50] An example of positive externalities could be the social benefits of education or the environmental benefits of the installation of solar panels by homeowners. For discussion see, for example, Krugman and Obstfeld, 2008, at pp. 267 et seq.

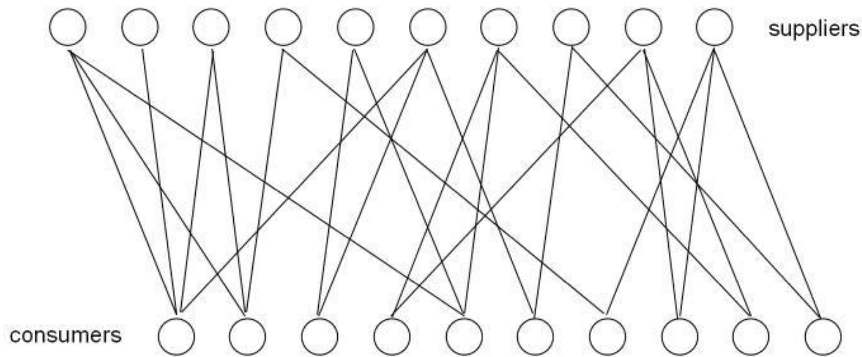
[51] Bob Lane defines competition as "the struggle by firms to achieve superiority over other firms in the marketplace" and competition law as "the rules limiting the freedom by which they may do so". See Lane, 2000, at p. 6.

[52] Markets are defined in terms of products, including essentially all those products that are interchangeable from the consumer's point of view, and in terms of geography, covering the largest possible territory that is sufficiently homogenous and not subject to significant barriers to trade or transaction costs. For example, the market for fresh bread is rarely larger than what can be reached within a 10 minute drive from the consumer's home and may be as small as walking distance. Consequently, it may only include two or three bakers or shops which sell bread. Also having a fast food outlet in the area will not be a useful substitute for consumers trying to buy bread for their breakfast at home. By contrast, the market for large passenger airplanes is a global market and includes Boeing and Airbus as the only producers/sellers. Military transport aircraft and their producers are not in that market because the airlines cannot avoid high prices of Boeing or Airbus by purchasing transport aircraft. As we will see later, makers of military aircraft may nevertheless curb the market power of Boeing and Airbus to charge super-competitive prices because they can be potential entrants into the passenger aircraft market. For further discussion, see below.

[53] Indeed, there is an opinion that a certain level of misinformation of consumers is tolerable or even desirable, see Darby and Karni, 1973.

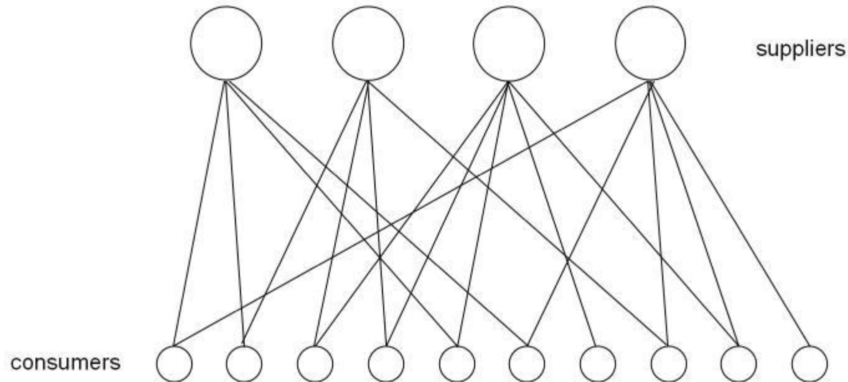
[54] For more detailed analysis see Areeda et al., 2004, pp. 15-32; Bishop and Walker, 2010, at pp. 15-50; and Fox et al., 2004, at pp. 56-76.

Figure 1. Structure of a Competitive Market



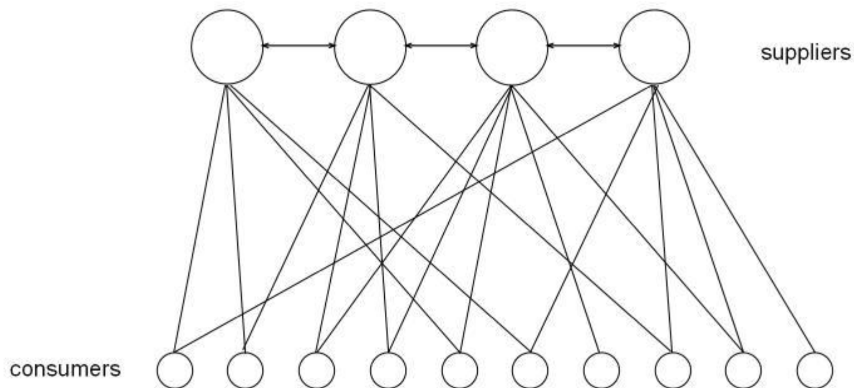
many small suppliers negotiate deals with many small consumers,
none of the suppliers or consumers have market power,
all of the suppliers and consumers have choices,
there is sufficient transparency and relatively low transaction costs

Figure 2. Structure of an Oligopolistic Market



many small consumers negotiate deals with a few large suppliers,
the consumers don't but the suppliers increasingly have market power,
suppliers have many and consumers still have some choices,
there is sufficient transparency and relatively low transaction costs

Figure 3. Structure of a Cartellistic Market



many small consumers negotiate deals with a few large suppliers,
the consumers don't but the suppliers together have market power,
since suppliers cooperate, consumers have no real choices,
transparency and transaction costs become irrelevant

While perfect or even just workable competition is the most beneficial situation for society as a whole, it is sub-optimal for the producers and sellers. The only way to grow in such a market is by working harder/longer/faster and/or better/smarter than the others. Since this is hard, some producers or sellers will seek to avoid the competitive pressures of the market place. First, they may seek to merge with competitors to reduce the number of producers or sellers and obtain a stronger position in a smaller crowd (see figure 2).

Once a process of consolidation begins, others come under pressure to follow suit lest their smaller size becomes a disadvantage in negotiating with suppliers or a real or perceived disadvantage regarding economies of scale.[55] In this way, a first mover can trigger an avalanche and, as a result, a structural shift from many competitors to an *oligopoly* of just a few competitors. Second, once the number of players in a market is no longer infinite,[56] the remaining companies may try to form a cartel to fix prices, limit output, or agree on some other form of anti-competitive conduct (see figure 3).

In an extreme case, a single company may become so dominant that it is essentially the only remaining significant player in a market and, hence, a *monopoly* (see figure 4).[57]

Even a country that is blessed with near perfect or at least workable or effective competition in a given geographic and product market, therefore, has to undertake steps to ensure that this competition is not gradually undermined and disappearing. This is where competition law comes into the picture.[58] Unsurprisingly, economists can demonstrate that sustainable economic growth, overall prosperity, and gradual reduction of income disparities, are all supported by the adoption and implementation of robust competition[59] oversight. Even more important, whenever a certain product and geographic market is not sufficiently competitive, let alone when a whole country is characterized by the existence of dominant firms or monopolies in many markets and/or heavy government intervention that is not justified as a measured reaction to correct externalities, there is much to be gained from the introduction of robust competition oversight. Furthermore, robust competition oversight should ideally be paired with measures to promote transparency in the market and measures to reduce transaction costs. All of these will be discussed in more detail below.

The economics of competition and competition law, as outlined very superficially above, are virtually universally accepted today. It is not surprising, therefore, that in the last 25 years, basically since the end of the cold war, at least 75 countries have introduced their version of competition oversight (Annex 1) and another 30 or so have substantially revised their older legislation (Annex 2).[60] However, the results have often been disappointing – in particular for the developing countries. Most of these countries do not have better market economies today than they had before the introduction of competition law and authorities. Prices have not come down from super-competitive levels, quality remains inferior to other parts of the world, and dominant firms, if anything, are larger and more powerful today than they were before. This begs the question what went wrong. After 20 years of watching countries and advising governments as they experiment with competition law, advising dozens of large and very large enterprises as they respond to these competition laws, and conducting or supervising many research projects done by me and my students in this area, I am trying to answer this question in the present publication.[61]

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[55] For a recent example see Los Angeles Times, *Marriott's Plan to Buy Starwood for $12.2 Billion Could Trigger More Hotel Mergers,* Business News, Friday, 11 March 2016.

[56] Cartels tend not to work well if the number of players in the respective market is too large. Either some firms will not participate in the cartel for fear of sanctions. Or some participants may begin to cheat, i.e. try to gain market share at the expense of other participants by undercutting the agreed upon prices or conditions. Smaller cartels can detect cheating firms and apply their own sanctions against them. Large cartels are rarely able to detect who is cheating. For more elaborate discussion see Dick, 1996.

[57] Since there are several paths to dominance or monopoly, including natural growth of the most innovative and competitive company, mergers, as well as natural monopolies, in particular in network-based industries such as railroads and utilities, size alone should not necessarily be condemned. This will be developed further below.

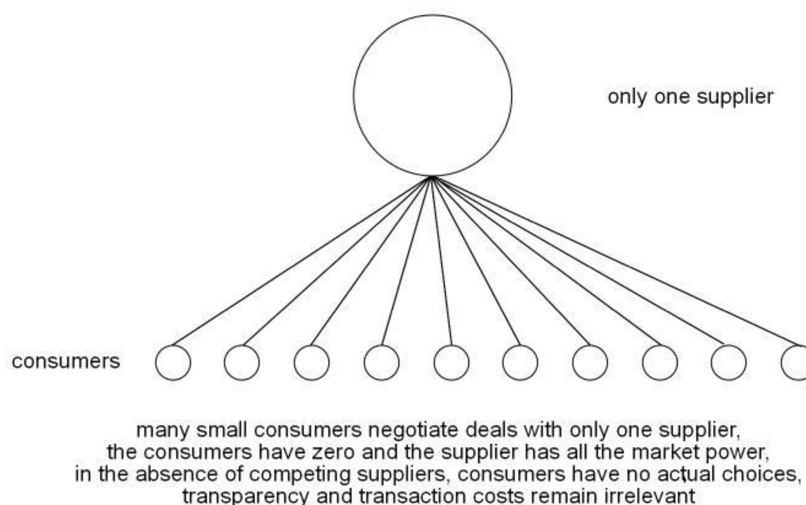
[58] The literature on antitrust- or competition law fills many shelves in our libraries. Books I have personally found particularly informative are, for example, Areeda et al., 2013; Elhauge and Geradin, 2011; Faull and Nikpay, 2014; Gavil et al., 2008; as well as Rose and Bailey, 2014.

[59] Although in the United States of America, the subject is more commonly referred to as "antitrust law", I prefer to use the European terminology because "competition law" is wider, capturing not only the combat against trusts or cartels but also several other components of the fight against anti-competitive practices implemented or attempted by private parties and even public authorities. The scope of analysis will be explained in part 2. of the article.

[60] For excellent introductions to the competition laws and supervisory mechanisms of Australia, Brazil, Canada, China, the EU, France, Germany, India, Ireland, Italy, Japan, Mexico, the Netherlands, Russia, South Africa, Spain, and the United Kingdom, see Fanelli et al., 2011. See also Maher Dabbah, 2010; Kronthaler, 2007; as well as Kronthaler and Stephan, 2007.

[61] On a related issue see Emmert, 2003; some of the institutional problems are also addressed in Emmert, 2003a.

Figure 4. Structure of a Monopolistic Market



2. WHY COMPETITION LAW IS BETTER THAN ANTITRUST LAW

Although we can trace legal disputes over monopolies as far back as the early 17th century,[62] and the first statute on the matter was probably the British Statute of Monopolies of 1632, which already prohibited monopolies with the exception of patents (Greenberg, 2010, at p. 1488), modern competition oversight was invented in the United States after the presidential elections in 1888. During this time, leading corporations in a variety of industries had started openly cooperating in the form of "trusts", fixing prices and other terms of trade to the detriment of consumers and society at large. In response, Senator John Sherman introduced a bill declaring "[e]very contract, combination in the form of trust or otherwise, or conspiracy ... illegal" if it causes "restraint of trade or commerce among the several States, or with foreign nations".[63] The legislative history demonstrates that the main purpose of going against the powerful trusts was the protection of consumer welfare.[64] Although §2 of the Sherman Act goes on to condemn monopolies, the "trust-busting"[65] purpose dominated the discussion and the term "anti-*trust* law" stuck to this day. An alternative term for *trust*, although not strictly the same, is *cartel*. This is reflected in German law, which is commonly known as "Kartellrecht",[66] with supervision entrusted to the "Bundeskartellamt" (Federal Cartel Office).[67]

Since challenges to workable or effective competition arise not only from collusive practices of the major players in oligopolistic markets but also from other kinds of private interference and even some state interference with the forces of the market, both the terms antitrust law and cartel law are under-inclusive and to be avoided. In particular, in emerging markets and transitional economies, classic cartels are usually not the biggest problem since it is not very common that these markets have a number of relatively comparable enterprises that could compete but prefer to collude. More often than not, emerging and transitional markets are dominated by one or a few companies per industry. If this is indeed the case, measures against abuse of dominant position, respectively monopolization, are needed more urgently than anti-cartel measures. In general, it is preferable to use the term *competition law* and to develop this law in a comprehensive way that covers all major challenges to effective competition.

Although U.S. law regulates more than just trusts or cartels, it is not an easily accessible legal system for non-U.S. lawyers. The statutes are generally old and short and for their proper understanding it is necessary to study very many court decisions, which are by no means always easy to read or even consistent. By contrast, EU competition law was developed more recently (McGowan, 2010)

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62 See, for example, The Case of Monopolies, 77 ER 1260 (1603), as quoted in Morgan, 2005, at p. 1.

63 See Sherman Antitrust Act, 15 U.S.C. §1. See also Collins, 2013.

64 This is largely ignored by the Chicago School and even the Harvard School, both of whom work from the premise that antitrust law is first and foremost about promotion of economic efficiency, Posner, 1979. See also Pitofsky, 1979, and comments by Schwartz, 1979. An interesting discussion about the question whether antitrust should pursue any specific goals was conducted at a symposium at Fordham in 2013. See, *inter alia*, Stucke, 2013, Fox, 2013, as well as Hyman and Kovacic, 2013.

65 The term was coined when President Roosevelt, from 1901/02, instructed his administration to make use of the Sherman Act to rein in powerful and abusive trusts like Rockefeller's Standard Oil and Hill/Harriman/Morgan's Northern Securities Co. (railroads). Roosevelt himself did not like the term because he did not want to destroy the companies and combinations but merely regulate their conduct to prevent abusive practices.

66 The official title of the German statute, however, is Gesetz gegen Wettbewerbsbeschränkungen (Act Against Restraints on Competition); see BGBl. 2009 I, at 3850 (the German version is available online at http://www.gesetze-im-internet.de/bundesrecht/gwb/gesamt.pdf; an English translation, although not entirely up to date, can be found at http://www.iuscomp.org/gla/).

67 See The Bundeskartellamt, http://www.bundeskartellamt.de/wEnglisch/index.php.

and is much more determined by statutory materials. Although the legislation in the EU is not exactly easy reading either, at least it is for the most part inherently consistent and one does not have to worry nearly as much whether a certain case has been overruled or should be distinguished.[68] More importantly, since 1980, antitrust enforcement in the U.S. has been going through a series of periods where it was largely dormant. During the Bush Administration from 2000-2008, the Justice Department did not bring a single monopolization case to court and merger applications were basically automatically approved, regardless of the potential for domination. The main exception was cartel enforcement. By contrast, the EU Commission, during much the same time, built a track record of vigorous and successful competition oversight and enforcement in all areas with a limited exception in state aids. Therefore, it is nowadays more fruitful for developing countries and emerging markets seeking to introduce robust competition oversight, to look to EU competition law for inspiration, rather than U.S. antitrust law.[69] Hence, the following discussion will be based heavily on EU law models[70] and draw only occasionally on US law.[71]

Analysis of threats to workable or effective competition on the one side, and EU law responses on the other, suggests that a country has to address not just monopolies and cartels but also a number of other issues. Therefore, the standards and definitions to be included in substantive competition law(s) of transitional and developing countries shall be outlined in some detail.

2.1. Monopoly or Dominant Position Resulting in Market Power

The first thing to remember in any discussion of monopoly is that size alone does not matter nearly as much as power, and that even power does not have to be a problem as long as it is not abused.[72] Some definitions will be useful:

As the name suggests, *monopoly* is a market structure in which there is only one player on the producer/seller side (selling power) or on the user/purchaser side (purchasing power).[73] If there is one very large company in a market with one or more much smaller companies, it is better to speak of a *dominant position* than of monopoly. Both of these scenarios require a definition of "the market" because it is not possible to know the number of companies sharing a market or to measure the power of a dominant firm in a market without first defining what the market is (Kauper, 1996; for an opposing view see Kaplow, 2010; Massey, 2010; as well as Crane, 2014). Markets have to be defined with regard to the *product* and the *geographic* scope.[74] The product market includes all sellers or buyers that are *in competition* with each other. Products are in competition when they can be exchanged. For example, small passenger cars are not identical to medium sized passenger cars but the one can be a *substitute* for the other from the buyer/consumer point of view. This is usually tested – in a hypothetical way – by assuming a significant and persistent price increase in only one of the two products and observing whether there is a measurable switch of consumers to the other product. In our example, if the price of medium sized passenger cars went up by 5-10%, would we see a significant number of potential buyers of medium sized cars switch to smaller passenger cars? Since the answer should be affirmative, small and medium sized passenger cars are in competition with each other and, therefore, in the same market. By contrast, luxury cars are not in the same market as small cars, since a price increase in the luxury car market would induce some buyers to switch to medium sized = medium priced cars but not all the way down to small = cheap cars. "The product" can be a good, like the cars in the previous example, but also a service, for example the distribution services of a supermarket chain or the work of a plumber. Therefore, "the product market" can also be food retailing or bathroom repairs and renovations and these markets would include all those who are offering the same or a substitutable service. "Consumers" don't have to be end-users and are usually the direct contractual partners of the firm(s) under investigation. Therefore, the question whether different computer chips are part of one and the same market has to be answered from the point of view of the computer makers and any other firms who buy the chips to integrate them into their own products.

Once the product market has been determined, the geographic scope of that market also needs to be decided. In general, we include all those competitors into one geographic market who are operating under essentially homogeneous conditions, meaning in particular under comparable legal frameworks, economic and social structures, as well as consumer preferences and possible other factors. The test is again whether a potentially competing product is indeed a viable substitute from the buyer/consumer point of view. For example, if there is only one car maker in a given country, this company may have a monopoly. However, if it is sufficiently easy for car dealers and even average buyers to import cars from another car maker in a neighboring country, the

[68] For an overview of EU case law see, for example, Vogelaar, 2010.

[69] The EU model, given its supranational character, is of particular value for other regional economic integration systems like ASEAN, SADC, ECOWAS or CARICOM. On this issue see Drexl et al., 2012; as well as Papadopoulos, 2010, in particular chapter 5.

[70] For a compact overview of EU competition law, see Powell et al., 2011. See also Fox, 2009.

[71] While difference in style are substantial, differences in substance may not be so great. See Bartalevich, 2013 and Bartalevich, 2014.

[72] For useful comparative analysis see Schmidt, 2012.

[73] An example for purchasing power is a country or region where there is only one very large supermarket chain as the dominant food retailer. This chain would have a lot of power when negotiating with suppliers such as dairy producers. If your milk is not on the shelves of this supermarket chain, you are just not going to sell a lot.

[74] For guidance see COMMISSION NOTICE ON THE DEFINITION OF RELEVANT MARKET FOR THE PURPOSES OF COMMUNITY COMPETITION LAW, OJ 1997 C 372, pp. 5-13. See also Hawk and Huser, 1996, at pp. 123-168; and, more recently, Kokkoris and Shelanski, 2014, at pp. 199-220. For a critical analysis of the U.S. approach see ten Kate and Niels, 2009.

geographic market would encompass both countries and the market power of the local firm would be substantially reduced. Substitutability has to be examined in a comprehensive way, of course. If importing foreign cars is cheap and easy but they cannot be registered without major bureaucratic hurdles, they are generally not viable substitutes. Similarly, if the local cars come with right hand drive, as it is in the United Kingdom, imports from the European continent with left hand drive will not be viable substitutes for most drivers.

After the market has been determined in both product and geographic terms, the market power of the different firms in that market can be measured. Several criteria have to be considered.[75] First, we have to look at the respective market shares. A monopolist, by definition, has 100% market share. However, a firm may be considered dominant although it has only 40-50% of the market share, for example if all other firms in that market are tiny (50 firms with 1% market share each) or if the big firm has special advantages, such as essential intellectual property rights that it licenses – or does not license – to the competitors for a fee. As a rule of thumb, we can say that dominance is highly unlikely for a firm with a market share below 25%, it is possible but needs significant other factors with market shares between 25 and 50%, it is likely with market shares between 50 and 75%, and it is almost always a given with market shares over 75%.

The analysis of current market shares is a static analysis and does not account for dynamic markets. Therefore, it is usually necessary to look back at the evolution of market shares and also to make predictions about the future, in particular the existence of potential new entrants into the market. For example, a firm with 60-70% market share in a market where all other current competitors are small, say 10 firms with around 3% market share each, is clearly dominant. Whether it has actual market power, however, is a different question. Market power is defined as the ability to act independently, i.e. to disregard what the competitors are doing or may be doing in the foreseeable future.[76] In our example, the dominant firm would have market power if it could restrict its output and cause a shortage in supply that would drive up prices without losing market share to the small competitors because they would be unable to increase their output enough to pick up the business. Alternatively, the big firm might decide to increase its prices and its market power would depend on the ability of at least some of its customers to switch to the smaller competitors for better deals. Dominant firms with market power are price makers, small firms without market power are price takers. If the dominant firm lowers its prices, the small firms have to follow suit or lose business and if they can't survive at the lower prices they will be squeezed out of the market. Conversely, if the dominant firm increases its prices, the small competitors might as well follow suit because they don't have the capacity anyway to pick up customers who want to avoid the new prices of the big firm. At the bottom line, market power is the ability to make super-competitive profits, i.e. to sell the same quality for higher prices than the competition or lower quality for the same price as the competition, and ultimately the ability to determine the profit margin of the smaller competitors and even their survival in the market. Analysis of past conduct of large firms, therefore, gives a good idea of their market power, in particular if they have been able to increase their prices without losing market share or if they have successfully squeezed smaller competitors out of the market already.

In addition to looking at past conduct as an indicator of market power, we need to look at possible future competition.[77] Potential competition is in most cases the single most powerful curb on the power of a dominant firm. Super-competitive profits are visible to potential competitors in the form of unusually high prices for competitive products or profitable sales of otherwise uncompetitive products. Markets where such super-competitive profits are possible over extended periods of time attract new market entrants. The question whether or not a new firm will enter a market and challenge the position of the currently dominant firm depends on two factors: Barriers to entry and the existence of potential competitors. *Barriers to entry* are either legal or economic. *Legal barriers* can be insurmountable, for example if the dominant firm has the key intellectual property right or if the government will not issue another license beyond the existing number. *Economic barriers* are usually surmountable, but if the cost of entry is high and the profitability of entry is uncertain, this may deter potential entrants from trying. The risk for the potential competitor will be determined by the amount of money at stake, the length of time it will take in unchanged market conditions to recover that amount, and the probability that market conditions will remain unchanged or at least not deteriorate significantly over that period of time.

For example, the dominant firm may be able to discourage potential entrants by lowering its prices from a super-competitive to a competitive level each time a potential entrant is showing interest by inquiring about a license or IP right or by entering

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75 Bellamy & Child, in their leading monograph on EU Competition Law, propose a three-step analysis: "(i) *market definition:* defining the relevant product market and the relevant geographic market ...; (ii) *market share analysis:* establishing the market share of the undertaking in question on the relevant market ...; (iii) *analysis of competitive constraints:* assessing the significance attributable to the market share of the undertaking in question and in particular whether it is likely to be eroded by actual or potential competitors" (emphasis in original). See Rose & Bailey, 2014, §9-009 at 920-936; see also Nenova, 2007, at p. 134.

76 The European Court of Justice has defined "dominant position" as "a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition ... giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers." See ECJ, Judgment of 14 February 1978 in Case 27/76, United Brands Company and United Brands Continentaal B.V. v. Commission ("United Brands"), [1978] ECR 207, at para. 65.

77 For a comprehensive analysis of factors contributing to or inhibiting market power see Rose and Bailey, 2014, §10-020 to §10-047 (see also 2010 supp. pp. 114 - 118). See also Massey, 2000; as well as the classic analysis of Landes and Posner, 1981.

into M&A negotiations with one or more of the small competitors already in the market. Volatility of prices is generally not encouraging large investments by potential competitors. In addition to the total cost of entry, a potential competitor will look at the so-called *sunk cost*, i.e. the amount that has to be written off and cannot be recovered if the market entry fails (Baumol and Willig, 1981). For example, if the entering firm is acquiring land or buildings for its operations, they can usually be sold if and when the firm leaves the market and the investment may be recoverable in full or at least in part. Conversely, if the entering firm has to spend a lot of time and money to train staff and develop know-how, the investment may not be recoverable at all in case of market exit.

Potential competitors are in particular those firms that already supply the same or a similar product in a different market and/or those firms that already work with the same customers as the dominant firm (Posner, 1975; Dasgupta and Stiglitz, 1988). For example, a passenger car manufacturer in country A can probably enter the market of country B relatively easily by setting up an assembly plant there if it seems that good money can be made in B because the current monopolist there has been charging high prices for relatively unsophisticated products. Similarly, a maker of military transport aircraft may be a potential entrant into the passenger aircraft market if it seems that good money can be made in that market for the foreseeable future.

Last but not least, the analysis of market power may also have to include special factors, for example legal advantages of the dominant firm such as licenses and intellectual property rights, special access of the dominant firm to input or raw materials due to its vertical integration, etc.

In parallel to the analysis of size and power of the firm under investigation, we need to ask the question how this firm became so big in the first place, whether the monopoly or dominance is economically or legally determined, and what, if anything, the competition authorities should do about it. Size, as measured in market share, can be desirable and undesirable from an economic point of view. There are markets in which it is simply not efficient to have more than one provider. They are often referred to as "natural monopolies". Those are in particular network dependent services with universal service obligations. Typical examples are the electricity, gas, and water supply networks. It does not make sense to have more than one country-wide network for these kinds of services, although some countries are successfully experimenting with a separation of the network from the providers so that several competing firms can feed their electricity into one and the same grid or several railway companies can run trains across the same tracks. Since the network or grid remains a monopoly, it is then either operated by the state or at least very closely supervised and regulated by the government. What remains difficult to resolve are networks or facilities with slots of different desirability. In the example where the government operates the one and only network of tracks and different companies can run their trains across them, who gets the slots during rush hour and who has to supply the late night service? The same is true for departure and landing slots at airports. Efficient allocation requires distribution by auction or by another system that puts different prices on slots of different desirability.

In other markets it may be most efficient to have only one supplier but competition would be possible. For example, even in the United States only one supplier of larger passenger aircraft has survived (Boeing). Similarly, in Italy there is today only one manufacturer of mass-market passenger cars (Fiat). Former competitors were either forced out of the market or taken over because the market structure with multiple producers within the same country was not as efficient. However, competition is nowadays supplied from abroad, a development that was promoted by trade liberalization.

Another example where a company gradually acquired dominance in a given market was discussed by the US Supreme Court in *United Shoe*.[78] The firm under investigation was the largest supplier of shoe making machines with a market share between 75 and 85%. It held 3,915 patents and supplied machines of such superior quality that no competitor could match its offers. However, United Shoe also had a policy of never selling its machines but insisting on long-term leases, which created barriers to entry and other hurdles for actual and potential competitors and eliminated a second-hand market for the machines. The main question in a case such as this one is whether the competition authorities should interfere at all. On the one hand, United Shoe had acquired its dominant position by working hard over many years to provide superior technology and quality. On the other hand, even as a dominant firm, it still provided excellent machines and maintenance services to its customers while making only modest profits. Who or what is ultimately protected by competition law? The competitor(s)? The customer(s)? The market as such?

Developing and transition countries seeking to introduce or upgrade competition supervision have to figure out "their" way of assessing conduct *and* power and how and where to draw the lines.

One approach taken in U.S. antitrust law – but not the only one – can be summarized as follows: Any firm with an overwhelming share of the market "monopolizes" when it goes about its business and, thereby, causes a prima facie violation of §2 of the Sherman Act. However, the firm will not be prosecuted if "it owes its monopoly solely to superior skill, superior products, natural advantages, (including accessibility to raw materials and markets), economic or technological efficiency, (including scientific research), low margins of profit maintained permanently and without discrimination, or licenses conferred by, and used within, the limits of the law (including patents on one's own inventions, or franchises granted directly to the enterprise by a public authority)."[79] As can be easily seen, such an approach introduces an almost infinite

[78] See United States v. United Shoe Machinery Corp., 110 F.Supp. 295 (D.Mass. 1953), aff'd per curiam, 347 U.S. 521 (1954).

[79] Id. at 342, Judge Wyzanski referring to Judge Hand in United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945).

number of variables and uncertainties.[80] Who can decide whether a firm grew "solely" based on "superior skill" or "superior products"? How do we know whether this firm is indeed the most economically and technologically efficient and that nobody else could do the job even better? What is the meaning of "low margins of profit" when profits can be manipulated by transfer pricing, flexible allocation of overheads and other costs, and similar forms of creative accounting?

The approach taken by the European Union may be more straighforward. Size alone is no crime and there is no need to ask how a company acquired a dominant position in the first place. The difference between a firm that has a dominant position versus one that does not is merely that the former "has a *special responsibility* not to allow its conduct to impair genuine undistorted competition".[81] What is prohibited by Article 102 TFEU (formerly Art. 82 ECT) is only the *abuse* of a *dominant position*. The EU, therefore, does not need to worry about firms that are not in a position of monopoly or dominance. If such firms should engage in abusive behavior, their business partners should be able to contract with competitors instead. Similarly, the EU does not have to worry about dominant firms as such, in particular about the way they became dominant, as long as they do not also engage in abusive conduct. Only when size and abuse come together, EU law draws the line and offers a number of remedies that will be discussed below.

Since we have already discussed the assessment of dominance above, what remains at this point in time is a brief discussion of the patterns of commercial conduct classified as abusive by EU law. The Treaty itself, in Article 102, contains a list of the main examples of abusive behavior, namely

"(a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;

(b) limiting production, markets or technical development to the prejudice of consumers;

(c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

In practice, the determination whether a particular conduct is abusive or not, is not always easy. Several guiding factors can be identified.[82] First, we must ask whether the conduct in question, for example the insistence of leasing of the shoe making machines combined with the refusal to sell such machines, is *likely to further reduce the competitiveness of the market*. As will be remembered, competition in the respective market is already not ideal, let alone perfect, because of the presence of the dominant firm. In such a situation, the interest of the government and society would be to promote more competition with measures to be discussed below, and certainly not to watch a further deterioration. While this does place a special responsibility on the dominant firm, it does not mean that the dominant firm should no longer vigorously compete for the highest possible quality at the lowest possible price. Our second question, therefore, must be whether the conduct in question is *proportionate to legitimate business interests*. Even a company in a dominant position can refuse to deal with a client who previously failed to pay for the goods or services in time or in full. However, it may not refuse to deal with a client if it has no other reason for such refusal than to hurt the client and/or reduce competition in the market. In general, measures subjectively intended and objectively suitable and necessary for the protection of one's own legitimate business interests are allowed even to dominant firms, whereas measures that go beyond what is necessary or that pursue illegitimate goals, are not. In the present example, this may mean that the dominant firm has to contract even with the troublesome client, if the latter offers to pay in advance, unless payment was not the only problem in the past.[83] It also means that conduct,

[80] For a critical discussion of the vague and inconsistent definitions of 'market power' and 'monopoly power' provided by U.S. courts see Krattenmaker et al., 1987; as well as Kaplow, 2010, Massey, 2010, and Crane, 2014; See also Nelson and White, 2003.

[81] See European Court of Justice, Judgment of 9 November 1983 in Case 322/81, NV Nederlandsche Banden-Industrie Michelin v Commission ("Michelin"), [1983] E.C.R. 3461, at para. 57, emphasis added.

[82] For a good example from the U.S. see United States v. Microsoft Corp., United States Court of Appeals for the District of Columbia, No. 00-5212, Judgment of 28 June 2001. An instructive case in EU law would be Case C-62/86, AKZO Chemie BV v Commission of the European Communities, Judgment of 3 July 1991, ECR I-3359.

[83] Bellamy & Child discuss the following examples of abuse in some detail in their seminal book: 1) excessive pricing = unfairly high prices not justified by the quantity or quality of the goods or services; 2) predatory pricing = unfairly low prices designed to eliminate one or more competitors from a market and/or discourage new entrants; 3) price discrimination and price squeezing = different prices for similar transactions or customers which are not justified by objective and legitimate criteria, for example lower prices for those customers who do not deal with a particular competitor; 4) fidelity rebates and exclusive dealing = other encouragements for clients not to deal with competitors; 5) refusal to supply = our example; 6) abuse of intellectual property rights, for example the refusal to grant a license to a firm even though other competitors have received such a license and/or in situations where the respective market is undersupplied, without an objective justification for the refusal; 7) tying = the combination of goods or services that do not have to be combined, for example making the sale of photocopiers conditional upon the purchase of maintenance services; 8) other (abusive) contractual conditions, for example unfair restrictions on warranties, or prohibitions imposed in a license against "inventing around" the protected IP; 9) discrimination (other than price discrimination) = treating similar or even identical transactions differently in ways that are unfair and restrictive of competition; 10) limiting production, markets or technical development, for example the systematic and unnecessary undersupply of the market with the intention of raising prices; and 11) other abuses, for example intentional inefficiency, underutilization of capacity,

which may be fine for a company while it is small because clients can go to a competitor if they don't like the terms imposed on them, may become problematic if the same company grows to be dominant.

Against this background, countries wishing to introduce robust or improve existing competition supervision first and foremost have to adopt detailed statutory language that outlines the goal, protection of effective competition, and the primary tool, prohibition of abusive conduct by dominant firms. This must include clear and objective definitions and tools for the determination of the relevant market and the measurement of dominance and market power. Furthermore, abusive conduct has to be defined in detail and examples have to be provided. Ultimately, in-house counsel and external lawyers have to be able to determine for any medium sized or larger company a) whether the firm should consider itself dominant in a given market, and b) what kind of business conduct is consequently to be avoided. When in doubt, legislatures should seek inspiration from the statutory materials of the European Union, as well as their interpretation in the practice of the EU Commission and the European Court of Justice. If it were acceptable from a constitutional law and sovereignty point of view, explicit reference to EU competition law as the model to be followed, would provide useful guidance to practitioners, enforcement agencies, and courts, and greatly improve legal certainty.

As will be shown next, the other tools of competition oversight, in particular merger control, prohibition of cartels, and restrictions on public undertakings, are really just supporting policies either designed to prevent the creation of dominant enterprises in the first place, or to prevent other forms of accumulation of power, all with the ultimate goal of preventing abuse of power in the market.

2.2. Merger Control

Small firms generally do not have market power and if they should impose abusive terms in their contracts, their suppliers and clients presumably can just walk away and deal with a competitor instead. In this way, the market takes care of the abuser or, in other words, competition is effective in securing the highest possible quality at the lowest possible price for everyone. If firms start out small but grow large because of superior effort and quality, this kind of organic growth must not be discouraged, let alone penalized, because it would dampen competitive efforts in the first place. Thus, size alone is no crime and one should merely keep a closer eye on an increasingly powerful/dominant firm to make sure it does not get tempted to engage in abusive behavior as it gains the ability to do so without having to fear the competition any more. This was discussed in the previous section.

refusal to use available technology, or even the deliberate harassment of competitors with unwarranted litigation. See Rose and Bailey, 2014, §10-058 to §10-156 at 947-1030. Obviously, the items on the list are neither mutually exclusive, nor necessarily comprehensive of every possible form of abuse.

In this section, the focus will be on *the other* method of growing from small to big and eventually dominant, namely mergers and acquisitions. At the outset, we can say that M&A activity will not concern the competition authorities as long as the respective firms are relatively small in a relatively competitive market. However, if the market already tends towards an oligopoly, the perspectives change and further concentration becomes undesirable (Bos et al., 1992; Cook and Kerse, 2009; Hawk and Huser, 1996; Kokkoris and Shelanski, 2014; Navarro, 2005; Rose and Bailey, 2014; and Schwalbe and Zimmer, 2009). Also, there is a difference between vertical mergers, where two or more firms get together that were previously in a supplier-customer relationship and did not compete with each other,[84] and horizontal mergers, where firms get together that used to compete. Vertical mergers are less likely to reduce competition in a given market and trigger less concern on behalf of competition authorities.[85]

An important tool in the assessment of the impact of a proposed horizontal merger is the Herfindahl-Hirschman Index of market concentration, which is used both in the EU and the US. The HHI is calculated by adding the squares of the market shares of all firms in a given market. For example, if a market has ten firms of 10% market share each, the HHI is $10 \times 10^2 = 1{,}000$. If there are only five firms of 20% market share each, the HHI is $5 \times 20^2 = 2{,}000$. If there is one firm of 50%, one of 30% and one of 20% market share, the HHI is $50^2 + 30^2 + 20^2 = 3{,}800$. Finally, a market with just one monopolist of 100% market share has an HHI of $100^2 = 10{,}000$. In general, markets with an HHI below 1,000 are considered to be unconcentrated, markets with an HHI between 1,000 and 1,800 are considered to be moderately concentrated, and markets with an HHI above 1,800 are considered to be highly concentrated.[86]

When a merger between two firms is proposed, we can calculate the HHI before and after the merger to provide an assessment whether the merger will make a significant contribution toward a highly concentrated market. For example, if the market shares in a given market are 25%, 15%, and 12 x 5%, the HHI is $25^2 + 15^2 + (12 \times 5^2) = 1{,}150$. If the biggest two firms were to merge, this would result in an HHI of $40^2 + (12 \times 5^2) = 1{,}900$, i.e. a highly concentrated market. By contrast, if the biggest firm would merge with one of the smaller firms, the HHI would be $30^2 + 15^2 + (11 \times 5^2) = 1{,}400$, a relatively modest increase in concentration. The result would be even clearer if

[84] Sometimes we also distinguish conglomerate mergers, where the firms were neither horizontal competitors nor vertical supplier-customers, for example if a financial services provider buys a diamond mine. Those are generally not problematic because the firms are not active in the same or at least connected markets and, therefore, cannot cause or strengthen the market dominance of one another. For detailed analysis see Goldberg, 1973, and Mueller, 1977.

[85] See European Commission, GUIDELINES ON THE ASSESSMENT OF NON-HORIZONTAL MERGERS UNDER THE COUNCIL REGULATION ON THE CONTROL OF CONCENTRATIONS BETWEEN UNDERTAKINGS, OJ 2008 C 265, p. 7, esp. paras. 23-27. See also Marco Colino, 2010.

[86] See Dep't of J. & Fed. Trade Comm'n, HORIZONTAL MERGER GUIDELINES 1.5 - 1.522 (rev. 1997).

the second firm were to merge with one of the smaller firms: $25^2 + 20^2 + (11 \times 5^2) = 1{,}300$.

The HHI is not the only measure, however, for the assessment of a suggested merger. Even firms with very large market share do not always have market power in the sense that they could be tempted to abuse their dominant position. In addition to market share, we must look at

1) the current structure of the respective market: The risk of abusive conduct by the merging firm(s) is smaller than their sheer size may suggest if the market is dominated by more than one large firm and there is a history of vigorous competition between them. In this respect, it is also of interest whether there is excess capacity in the market so that customers wanting to avoid abusive behavior by one firm will find others ready to satisfy their demand.

2) the potential future structure of the respective market, in particular the question of potential competition and whether there are significant barriers to entry in the given market. In general, abusive behavior, which is essentially the sale of average or below-average goods at above-average prices, will attract new competitors to enter the market because of the super-competitive profits that can apparently be made. As discussed above, the actual or even just the potential entry of new competitors curbs the market power of the dominant firm(s), unless there are insurmountable or at least very significant barriers to entry.

3) the structures of upstream and downstream markets: If the merging firm(s) are buying from powerful suppliers, they won't be able to impose abusive conduct on them. Similarly, if their customers are large and have purchasing power,[87] they will be able to resist potential abuse by the merging firm(s).

There are also potential positive effects of a merger that may have to be balanced against the undesirable move towards a more concentrated market. Positive effects may include *efficiency gains* due to economies of scale or the combination of complimentary technologic, financial, or other resources. It must be noted, however, that there has to be sufficient competitive pressure on the merging firm(s) to ensure that at least some of the efficiency gains will be passed on to consumers.[88] Last but not least, a merger that would normally result in a highly concentrated market and an overly dominant firm can nevertheless be permitted if one of the merger partners is a *failing firm*, i.e. a firm that would disappear as a competitor anyway.[89]

2.3. Cartels and Other Forms of Collusion

If a firm does not actually have a dominant position in a given market and still tries to impose unfair conditions on its suppliers or consumers or any other form of abuse listed above, the market should take care of itself. Specifically, the frustrated suppliers or consumers will simply go to the competetion to buy or sell goods or services of higher quality and/or lower prices. If the competition is effectively competing, that is. The market cannot take care of itself and rein in any attempts at abuse if the competition is no longer competing and instead colluding with the abusive firm. Therefore, Article 101 of the Treaty on the Functioning of the European Union prohibits cooperation between otherwise competing firms if it has as its "object or effect the prevention, restriction or distortion of competition ... and in particular those which:

(a) directly or indirectly fix purchase or selling prices or any other trading conditions;

(b) limit or control production, markets, technical development, or investment;

(c) share markets or sources of supply;

(d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;

(e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts."

This is not the place to elaborate in detail about the various forms of abuse covered in this article. Some examples have already been given above, others can easily be found in case-law and literature. What is important, ultimately, is the understanding of the principle: We are always concerned with one and the same problem, namely any kind of abusive conduct in the market. If the market is highly concentrated, we have to control the conduct of the dominant firm(s). If the market is increasingly concentrated, we try to prevent mergers and thus the creation of dominant firms. If the market is not yet very concentrated, we just have to worry about collusion of otherwise competing firms because any one of them alone could not impose unfair conditions or other forms of abuse. Therefore, the new element to be dealt with in substantive law is the definition of prohibited forms of cooperation or collusion vs. other forms that are not (as) problematic.

As shown, the approach taken by the EU is to make all agreements between undertakings illegal if they have as their object or effect the prevention or restriction of competition. This is obviously very broad. If two or more competing firms agree to reduce their output to drive up prices or they just fix the prices straight away, they fall short of the

[87] The EU Commission calls this "Countervailing Buyer Power", see European Commission, GUIDELINES ON THE ASSESSMENT OF HORIZONTAL MERGERS, OJ 2004 C 31, p. 3, paras. 64 et seq.

[88] Id. paras. 76-88.

[89] This was essentially the ratio for permitting the merger of Boeing and McDonnell Douglas in 1997. Although the merger involved the last two competitors in the U.S. in the market of large passenger aircraft and the combination of the no. 1 and no. 3 providers globally, it had become increasingly clear that McDonnell Douglas would not be able to survive on its own as a first tier commercial aircraft producer. Instead of preventing the merger and essentially forcing McDonnell Douglas out of the market, the competition authorities, at least in the EU, focused on reducing ancillary restraints on competition, in particular the practice of Boeing to enter into exclusive agreements with airlines for multi-annual periods of time. For details see Commission Decisions of 30 July 1997, Case No. IV/M.877 - Boeing/McDonnell Douglas, C(97) 2598 final, available online at http://ec.europa.eu/competition/mergers/cases/decisions/m877_19970730_600_en.pdf. For further analysis see also Clark and Ofek, 1994, as well as Mason and Weeds, 2002.

law, as they should. However, there are agreements between firms that reduce competition while also serving some legitimate commercial goals. For example, if BMW, Mercedes Benz or another luxury car manufacturer enters into a distribution agreement, the manufacturer typically grants the dealer exclusivity for a certain territory in exchange for commitments by the dealer to provide a high level of quality in sales and maintenance services, and to promote the brand in local and regional media. The territorial exclusivity is a restriction of competition since the manufacturer will turn away other interested dealers, even if they are qualified and willing to accept all obligations of the standard distributorship agreement. A further restriction may be a clause in the original agreement that prohibits the dealer from taking on other brands of automobiles. The restrictive agreement can nevertheless be overall beneficial. First, the dealer will not be willing to invest as much into a fancy showroom, expensive diagnosis and other tools, as well as training of mechanics, if return on such investments is uncertain because of an ever growing number of licensed dealers in the area. Second, the dealer will also not be willing to spend much money on advertising if the resulting sales have to be shared with free-riding dealers in the same territory. Essentially, the exclusive distributorship reduces intra-brand competition (between different BMW dealers), while at the same time increasing inter-brand competition (between the BMW dealer on the one hand and the competing Mercedes and Lexus dealers on the other). Other examples of agreements that reduce competition are exclusive licensing agreements, any kind of franchise or supply or distribution agreement with an element of exclusivity, and even agreements for joint research & development of expensive new technology. If all of those were always prohibited, we might end up with a situation where, for example, the development of fuel cells for use in cars could be abandoned or at least delayed by years because it might be too expensive for any one automobile manufacturer to develop on their own and cooperation between two or more would be illegal.

The EU and the U.S. have chosen different methods to accommodate agreements that have some anti-competitive but also some pro-competitive or otherwise beneficial effects. §1 of the Sherman Act simply states that "[e]very contract ... in restraint of trade or commerce ... is declared illegal." In that respect it resembles the quoted passage of Article 101 TFEU and leaves the rest to the courts to resolve. Article 101 goes further than the statutory language of the Sherman Act, however, and explicitly provides that the prohibition of the first paragraph "may ... be declared inapplicable in the case of ... any agreement ... which contributes to improving the production or distribution of goods or to promoting technical or economic progress". Last but not least, it provides three additional conditions for such declarations to be given, namely that consumers must receive a fair share of the benefit, no unnecessary restrictions on competition shall be imposed, and competition shall never be eliminated altogether.

In the EU, the exemptions are essentially granted by the Commission, that is the administration.[90] It may do so on a case by case basis but it has also adopted several legislative instruments, so called "Block Exemptions" to define entire categories of agreements that fall outside of the prohibition, as well as a number of conditions for that to happen.[91] By contrast, in the U.S., a similar result is achieved via the case-law of the courts under the so-called "rule of reason" (Areeda, Kaplow and Edlin, 2004, at p. 113 et seq.). Needless to say, my recommendation for transitional and developing countries would be once again to follow the more clearly codified model of the EU, rather than the heavily case-based model of the U.S. (Stucke, 2009; Christiansen and Kerber, 2006).

2.4. Government Interference in the Market

In the three preceding sections, we analyzed how substantive competition law should prevent potentially abusive conduct by private actors in the market place. In this section, we have to shift our attention to potentially anti-competitive behavior by the state.

The government can influence firms and markets in a number of different ways: Primarily, the government charges different levels of fees for different kinds of economic activities via tax laws and licenses and the government adopts general legislation and administrative decisions to set the regulatory framework for all firms operating in its markets. Although legislative and regulatory decisions are often not economic decisions per se, they directly affect economic operators. Efficient allocation of resources requires on the one hand smart regulation by the government, for example with regard to the treatment of negative and positive externalities, and in general the promotion of efficient markets and technological progress. On the other hand, government regulation must be neutral and non-discriminatory to avoid interference with the forces of the market. For example, it simply does not make sense if a government buys the right to maintain trade protection for an inefficient domestic industry, say the textile industry in the U.S. or the agricultural sector in the EU, by offering special concessions to its trading partners in another sector of the economy. In the absence of a level playing field, an otherwise competitive industry may be pushed to extinction while an inefficient and

[90] The system was reformed and more responsibility was transferred from the Commission to the different undertakings with the adoption of COUNCIL REGULATION 1/2003 ON THE IMPLEMENTATION OF THE RULES ON COMPETITION LAID DOWN IN ARTICLES 81 AND 82 OF THE TREATY, OJ 2003 L 1.

[91] For general block exemptions see COMMISSION REGULATION 330/2010 ON THE APPLICATION OF ARTICLE 101(3) TO CATEGORIES OF VERTICAL AGREEMENTS AND CONCERTED PRACTICES, OJ 2010 L 102, p. 1; COMMISSION REGULATION 1218/2010 ON THE APPLICATION OF ARTICLE 101(3) TO CATEGORIES OF SPECIALISATION AGREEMENTS, OJ 2010 L 335, p. 43; COMMISSION REGULATION 1217/2010 ON THE APPLICATION OF ARTICLE 101(3) TO CATEGORIES OF RESEARCH AND DEVELOPMENT AGREEMENTS, OJ 2010 L 335, p. 36); as well as COMMISSION REGULATION 772/2004 ON THE APPLICATION OF ARTICLE [101(3)] TO CATEGORIES OF TECHNOLOGY TRANSFER AGREEMENTS, OJ 2004 L 123, p. 11.

insufficiently competitive industry is artificially protected from having to downsize or exit from a market. General legislation and regulation should always be neutral and smart and any perceived or real need for special protection should be done via individual administrative decisions that are made public and provided with clear and transparent justifications for the exception to the rule.

Administrative decisions granting financial benefits or other special rights or privileges to specific firms or industries also come in many forms. Benefits may be in the form of direct financial transfers or subsidies. Similar effects can be achieved with tax breaks or via government procurement at higher-than-market prices. Or a government may allocate land or special rights or privileges, such as import- or operating licenses, without an open bidding procedure and at arbitrarily determined prices. The solution to all these problems is easy in theory and difficult in political reality. Again, efficient allocation of resources requires on the one hand smart decision-making, and on the other hand non-discriminatory decision-making. When state resources are given to private individuals or firms, whether in the format of direct financial contributions or in the form of rights and privileges of monetary value, they should be allocated efficiently. This usually requires a public tender procedure or a public auction. Direct negotiations with individual parties behind closed doors will invariably result in inefficient allocations and (accusations of) corruption.

Procedural and institutional guarantees are necessary to prevent circumvention of otherwise good laws. In particular in countries with a history of tribalism, ethnic strife, and/or corruption, the legitimacy and efficiency of institutions can be greatly enhanced via internationalization, either in the form of regular peer review by international experts or even in the form of international experts as appointed permanent members. For example, the Constitutional Court of Bosnia and Herzegovina, because of the recent ethnic warfare in this country, is still composed of six domestically elected judges plus three international judges who are appointed by the President of the European Court of Human Rights.[92] As a result, if two of the ethnic groups would combine forces against the third, the two judges representing the third group, together with the three international judges, could put an end to this. Another example is the Lithuanian Centre for Quality Assessment in Higher Education.[93] Concerned with potential bias of national experts, it generally conducts the accreditation and re-accreditation procedures of all Lithuanian higher education institutions and degree programs with expert commissions composed of a majority of international experts. Similar structures could easily be created for competition authorities, procurement agencies, and similar institutions in transitional and developing countries! If such internationalized institutions and procedures are combined with a maximum level of transparency, i.e. widely accessible and discussed reports and recommendations, as well as legal remedies in case of circumvention or non-compliance, many of the worst possible problems regarding state interference in the markets will already be taken care of.[94] Additional suggestions concerning effective enforcement will be discussed below.

3. WHY COMPETITION OVERSIGHT IS BETTER THAN COMPETITION LAW

Functioning institutions and procedures make the difference between laws that may well stay dead letter, and laws that will be effectively applied (Fox, 2010). Before they can benefit from internationalization, as outlined above, they must be suitably designed and equipped. Countries seeking to introduce robust competition oversight not only have to adopt the necessary substantive laws. Effective competition oversight is best accomplished via the creation of a single competition authority (Kovacic and Hyman, 2012; Sokol, 2010), versus several fragmented bureaus, with the necessary resources and a clear mandate

- to analyze markets in general and conduct studies of the current and the desirable or necessary level of competition;
- the power to investigate entire industries and/or individual firms, including the right to interrogate witnesses under oath and the right to search the premises and other facilities of companies and confiscate evidence;
- the ability to enforce its investigative powers if necessary, usually via lump sum or daily penalties for non-compliance or other forms of refusal to cooperate;
- the right to adopt decisions against one or more companies calling for behavioral and/or structural changes to rebuild workable or effective competition in a particular market;
- the right to adopt decisions to cease and desist anti-competitive conduct, to re-structure or divest a merger, and/or to effect other forms of lasting change;
- the ability to impose and enforce meaningful punitive decisions for past violations of competition rules;
- the right to enact interim or other urgent measures to prevent irreparable damage in case of ongoing violations of competition rules;
- the right to threaten significant penalties for any future violations of competition rules;

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[92] See Constitutional Court of Bosnia and Herzegovina, http://www.ccbh.ba/eng/article.php?pid=1181&kat=503&pkat=509.

[93] See Lithuanian Centre for Quality Assessment in Higher Education, http://www.skvc.lt/en/?id=0.

[94] Both OECD and UNCTAD offer support in this regard. See, for example, the UNCTAD Model Law on Competition, Geneva 2004. As all UN publications, this is available in Arabic, Chinese, English, French, Russian, and Spanish. Comparative analysis of the World Bank/OECD and UNCTAD model laws is provided by Lee, 2007.

Even more valuable may be the work of the International Competition Network (ICN), a cooperation program between a number of national competition authorities. The ICN provides a forum for exchange of experience and seeks to develop global best practice standards. See Hollman et al., 2012.

- and the authority to observe markets over extended periods of time and make repeated interventions if necessary.

In the exercise of its powers, the competition authority must be independent from political forces, which essentially means that there cannot be a supervisory function of the ministry of justice or the ministry of commerce or any other branch of the executive. Much like a central bank, the competition authority should be bound only by the law and accountable only to the courts. If necessary, this independence may have to be secured via the constitution (Jenny, 2012).

As indicated, the competition authority must dispose of suitable and sufficient human, physical and financial resources.[95] In particular, the institutional budget and the positions and salaries of the experts working for the competition authority, must be protected against politically motivated sanctions or cuts. One way of achieving this is to connect the budget and salaries to those of other state institutions, such as the courts or the different ministries via a rule that any institutional budget and individual salary changes, up or down, must be in line with the changes at the other institutions. If the competition authority is deemed to need additional resources and/or the ability to pay higher salaries than those at other government agencies,[96] one way of achieving this can be via a rule that allows the competition authority to keep a percentage of the fines it imposes for the enforcement of the competition rules. Transparency and judicial review mechanisms should be in place, however, to provide legitimacy and safeguards against potential abuse by the authority.

In addition to drafting help with actual substantive rules, technical assistance in the development of effective and efficient administrative structures is another prime example where more developed countries can make an impact in developing and transition economies without having to commit huge amounts of money or many years of involvement on the ground (Sokol and Stiegert, 2010; Geradin, 2004).

4. WHICH PRIORITIES TO SET IN A DEVELOPING OR TRANSITION ECONOMY

Both the EU and the U.S. needed decades to develop the sophisticated levels of competition oversight we find today. Transitional and developing countries can follow the same course and essentially develop substantive laws, procedural laws, suitable designs and powers for competition authorities, as well as institutional and procedural rules for specialized courts, on their own in a kind of trial-and-error fashion. Naturally, the process can be accelerated by involvement of international consultants. However, the mere fact that alternative rules and institutional designs are being discussed in the national political process gives ample opportunity to different interest groups to throw spanners into the works. At the very least, they may be able to delay the creation of a robust system of competition oversight by a couple of years. Not infrequently, however, these political or economic players are able to introduce loopholes or structural weaknesses into the laws that permanently cripple the efforts of the newly created institutions.

The risk of delay, dilution, and debilitation can be much reduced if a transitional or developing country limits its discretionary decisions by opting to follow an existing and proven model. For example, if a country takes the strategic decision to use the EU system as its model, it can adopt a comprehensive set of substantive and procedural rules and will only have to determine how to apply the criterion of "may affect trade between Member States",[97] as well as the length of different transition periods for the development of the competition authority, the judicial review mechanisms, and the application of the substantive laws to the different industries and sectors of the economy. To the extent some provisions of the transplanted legal system[98] turn out to be poorly suited for the transition and/or development context, fine-tuning will need to be done, as with every statutory or common law rule. A question that is too large to be dealt with here but definitely deserves further analysis is whether developing countries can and should adjust competition laws to specifically promote poverty reduction (Fox, 2006; and Fox, 1989).

5. HOW COMPETITION LAW MUST BE EMBEDDED IN A LEGAL SYSTEM

Competition law cannot thrive without context. We may distinguish the closer context of administrative law, of which competition law is a part, and the broader context of the legal system as a whole, including such areas as consumer protection (Kirkwood, 2013), environmental protection, and other areas dealing with externalities.

In the context of administrative law, robust competition oversight depends on an existing or at

[95] On this subject see, for example, Serebrisky, 2004. See also the discussion below, in part 4., of the experience in a number of developing countries in recent years.

[96] This was done, for example, at the Egyptian Competition Authority, to enable this public body to recruit and retain highly qualified lawyers and economists would not have come for regular Egyptian civil service salaries. For more information see http://eca.org.eg/.

[97] This clause is found both in Article 101 and 102 TFEU, and in the form of "[having] a Community dimension" also in COUNCIL REGULATION 139/2004 ON THE CONTROL OF CONCENTRATIONS BETWEEN UNDERTAKINGS, OJ 2004 L 24, p.1.

[98] I am well aware of the undying discussion in academic circles of the possibility and desirability of "legal transplants". It would certainly be foolish to try to transplant specific rules or mechanisms from one legal system into another without any adjustments. However, like good surgeons will be able to select suitable organs for a transplant and prepare both the imported organ and the receiving organism for the operation to ensure success, a good expert team should be able to achieve a similar result in the legal field and potentially save a country from years and years of experimentation, let alone permanently dysfunctional mechanisms. For further discussion see, for example, Ajani, 1995; Berkowitz et al., 2003; Berkowitz et al., 2003a; Clarke, 2006; Dunning and Pop-Eleches, 2004; Garoupa and Ogus, 2006; Grajzl and Dimitrova-Grajzl, 2009; Graziadei, 2007; Kahn-Freund, 1974; Kingsley, 2004; Legrand, 1997; Mattei, 1994; Miller, 2003; Pistor et al., 2003; Schauer, 2000; Smits, 2003; Teubner, 2001; and Watson, 1993.

least evolving culture of good governance and rule of law.[99] Systemic problems of maladministration, institutional inefficiencies, and corruption, cannot be fixed by way of judicial review. The courts have neither the capacity, nor the expertise, or even the mandate, to do or re-do everything the administration should have done or should have done differently. Judicial review is suitable only to catch and correct the occasional slip and the most egregious problems (Tapia and Montt, 2012). It is essential, therefore, that all branches of the administration work together to develop a culture of law and government[100] that is focused on service to society, respect for human rights and fundamental freedoms (Andreangeli, 2008), pursuit of individual justice, and the assurance of transparency and personal integrity in matters large and small. Egypt is an example where a new, dynamic, well-intended and well-funded competition authority is being frustrated, and arguably failing, in the face of otherwise widespread administrative inefficiency and corruption.[101] One specific problem in Egypt is the fact that enforcement of the decisions of the Egyptian Competition Authority (ECA) is entrusted to the normal prosecution service and judicial oversight is provided by the criminal courts. While the staff members of the ECA are specially trained lawyers and economists, the prosecutors and judges apply their normal standards regarding evidence, i.e. that the accused is innocent until proven guilty and proof needs to be "beyond a reasonable doubt". There may also be a level of resentment among the regular and seasoned judges and prosecutors against the highly paid whiz kids at the ECA. As a result, more than a couple of cases that had been painstakingly put together by the ECA over many months fell apart at the enforcement stage either because the prosecutors were entirely unwilling to open a case or because the courts did not see a sufficient level of proof to impose the measures sought by the ECA. One consequence is a system that is at least partly dysfunctional. Another is a high level of frustration and attrition at the ECA. While Egypt may provide lessons of how *not* to introduce competition oversight,[102] the reforms enacted in India since 2007 seem much more in line with the recommendations in this essay and, therefore, an example of how to get the job done successfully.[103] Turkey seemed to be on the right path as well (Aydin, 2012). Latin American countries seem to be somewhere in the middle, with some good and some not so good examples.[104]

In the broader context, countries can and should pursue a multi-pronged approach toward promotion of economic efficiency and growth. In particular, if a domestic market is small and the number of competitors in many industries is limited, the opening of borders via trade liberalization can noticeably enhance import competition and, thereby, reduce the market power of established industries. Other ways of enhancing competition include the promotion of transparency, for example via the creation and/or subsidization of consumer organizations and independent product testing agencies, requirements of clear disclosure of prices and fees, and other fair labeling rules. Transparency goes up and transaction costs go down if the government provides or supports fast internet service at reasonable prices and ensures lively competition in the market for parcel and package delivery and transport services.

If some markets turn out to be impervious to soft support measures and/or trade liberalization, the government can also resort to subsidies for infant industries or compulsory licenses to reduce the power of established industries, in particular if the latter have been abusing their power and the competition authority has not been able to improve the structure of the respective market with the normal tools at its disposal. Natural monopolies and undertakings providing services of general economic interest in a framework of general service obligation usually need to be tightly regulated and strictly supervised to ensure efficient allocation of resources for the benefit of high quality at low prices. Internationalization of institutional oversight may help if too many personal and institutional links on the domestic level pollute the relationship between the government and the governed in this context.

6. WHY EFFECTIVE ENFORCEMENT IS EVERYTHING

The best laws and the most admirable institutions remain useless if they lack the ability to adopt and enforce effective decisions. In the area of competition oversight, we find three options for the enforcement of the law. First, there is the administrative option prioritized by the EU. This requires a powerful and independent competition authority with meaningful investigative powers and

[99] The term "rule of law" has become at the same time more popular and ill-defined. For a systematic discussion of different definitions and the proposal of a better model see Emmert, 2008, especially pp. 551-569.

[100] The problem of legal culture, in particular the difference between common law countries emphasizing case-law and most other countries emphasizing statutory law, is discussed in Ma, 2012. The influence of the political system, the political ideology, and the approach to the rule of law on the adoption of competition laws – but not their application and enforcement – was compared for 183 countries in Parakkal, 2011.

[101] See, for example, El Dean and Mohieldin, 2001; Ghoneim, 2002; and more recently Afifi, 2010. See also Geradin, 2004, for a critical assessment of competition enforcement by the Mediterranean Partners of the EU and an appeal for alignment of the competition laws in the region with those of the EU, as well as more technical assistance by the EU.

[102] For more information on the Middle East see Dabbah, 2012.

[103] See, for example, Damtoft and Bhasin, 2011; Fox, 2006-2007; Mehta and Agarwal, 2006; Ramappa, 2013; as well as Singh, 2013. For a much more critical view see Bhattacharjea, 2008.

[104] The overly complicated institutional structure in Brazil is currently under review, see Calliari, 2011; as well as Ribeiro Todorov and Torres Filho, (2012). See also Mendes de Paula, 2007, with further references. Mexico is already a step ahead in the modernization process, see Castaneda, 2011, and Pérez Motta, 2007. See also Fox and Sokol, 2009; as well as Alvarez and Horna, 2008. Issue 1 of 2008 of the Chicago Kent Law Review contains a number of competition law related contributions to a symposium about law and economic development in Latin America.

the ability of imposing substantial penalties. As is well known, the EU Commission does indeed have these powers. It is authorized and equipped not only to analyze markets in a theoretical way but to go out on so-called “dawn raids” to investigate enterprises in the field. The Commission officials must be given access to premises and answers to questions. They can and regularly do search offices for documents and other evidence and they can confiscate computers, files, and other data storage media (Regulation 1/2003, Articles 17-22[105]). To enforce its decisions and to penalize anti-competitive conduct, the Commission can impose periodic penalties of up to 5% of the average daily turnover of the enterprise, for example for every day until certain documents are surrendered, as well as fines of up to 10% of the total turnover of the enterprise in the previous year (Regulation 1/2003, Articles 23, 24). The highest fine against an individual enterprise adopted on this basis so far has been the fine of 1.45 billion US$ against the computer chip manufacturer Intel,[106] arguably a sanction that even a large multinational corporation will not pay from petty cash and disregard.

The second option for the enforcement of competition law is the private or tort law option. Although it is possible in the EU for competitors, suppliers or customers to bring tort cases and collect compensation for proven damages from an enterprise that has violated competition rules, this route is rarely taken in practice, largely because of the difficulties in securing clear evidence of the violation and in calculating and proving the damage.[107] By contrast to the EU, the U.S. provide much broader powers for a plaintiff to collect evidence from competitors and other firms in the so-called pre-trial discovery procedure, and the U.S. provide the possibility of collecting treble damages, i.e. three times the amount of the proven damages. This makes private enforcement of antitrust law attractive in the U.S. (Cavanagh, 2010) and, indeed, the primary tool next to relatively weaker administrative instruments of the Federal Trade Commission (Gavil, Kovacic and Baker, 2008; Ginsburg, 2005).

Finally, there is the criminal law option of holding the management of a firm personally liable for anti-competitive conduct and imposing jail sentences against the worst offenders. This is widely considered particularly effective because the managers as employees may like to take the bonuses for earning super-competitive profits but they won’t like to do time in jail for having made the extra money for their shareholders. By contrast, it is not clear how and why criminal sanctions against the companies themselves should be of use. Since legal persons do not go to jail, the sanctions will usually be financial penalties and those could be more easily imposed in administrative procedures where a lower threshold for the required proof applies (Beaton-Wells, 2012).

While each of the three options for enforcement has its strengths and weaknesses, recent experience shows that private enforcement works best as a complementary tool when the necessary investigations have already been done and the evidence has been secured by a powerful and sophisticated competition authority. Criminal enforcement may be another complementary tool but most not be the only tool in the box because of the higher standards of proof it requires. Ultimately, a transitional or developing country should probably avail itself of all three methods of enforcement.[108] It must be clear beyond any doubt, however, that the key to success will be in the hands of a well-appointed competition authority.

7. CONCLUSIONS

Every country which currently does not enjoy robust and effective competition oversight of all sectors of the economy stands to gain from introducing or improving such a system. Successful introduction or reform requires i) sophisticated definitions and provisions in substantive law, ii) clear and fair administrative procedures, iii) a well-designed and well equipped competition authority (Trebilcock and Iacobucci, 2010), and iv) competent judicial review. The stool has four legs and will not do its job if one or more of these legs are missing or defective. The necessary legislative and administrative changes are complicated. Considerable resources have to be invested, in particular for the training of administrative and judicial staff. As a whole, the hurdles to be overcome may well seem daunting for transitional and developing countries (Gal, 2010). However, the prize is well worth the effort, namely the accelerated growth of the economy and the broader distribution of wealth.[109] Fortunately, there are models that can be followed and advice that can be purchased second hand, for example the European Union rules on competition supervision, including the enforcement via the EU Commission and judicial review via the European Court of Justice. Furthermore, help for legislative drafting, administrative and court reform, and training of competition experts can be obtained from a variety of governmental and non-governmental sources in the Western developed nations. The EU Commission, in particular, has a lot of experience in this regard, after having supported eleven Central- and Eastern European Countries (CEECs) in their preparation for EU membership, which included a focus on the development of functioning systems of competition supervision.[110] In conclusion, we can say that a country that seriously wants to improve its economy by reinforcing its competition rules can certainly do so and obtain qualified support to get things right. The only question that remains is whether a country – or rather its political and business leaders – really want to develop an economy that works to provide the best possible goods and services to the largest possible number of users at the lowest possible

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[105] See Council Regulation 1/2003 on the implementation of the rules on competition laid down in Articles [101] and [102] of the Treaty, OJ 2003 L 1, p. 1, in particular Articles 17-22.

[106] See Case COMP/C-3/37.990 - Intel, Commission Decision (13 May 2009), OJ 2009 C 227, p. 13-17.

[107] For a somewhat more optimistic perspective see Friederiszick and Röller, 2010; as well as Basedow, et al., 2011.

[108] For further analysis see Baker, 2012.

[109] The best collection of essays on this point is probably by Sokol, Cheng and Lianos, 2013.

[110] Doleys, 2012; See also above, note 53.

price, or whether they would rather continue their abuse of dominant positions, price fixing cartels, and other ways of exploiting their market power and ultimately their people.

Annex I – 75 Countries Which Introduced Competition Oversight for the First Time After 1990.

Annex II – 30 Countries Which Have Substantially Revised and Upgraded Competition Oversight Since 1990.

Both annexes are available for free download – like most of the authors publications – at https://www.researchgate.net/profile/Frank_Emmert2.

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AUDITING VERSUS CONSULTANCY: A CRITIQUE OF THE EU LAW REFORMS ON THE NEW FORM OF AUDITING

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Abstract

Auditors used to serve the interest of the shareholders only. However, there have been significant changes in terms of auditors' role and their function. Auditors are now expected to verify financial statements, but at the same time give an assurance regarding the financial sustainability of the entity. Regarding the latter role, audit firms provide consulting services, including risk assessment and management services. However, the law does not assign the latter role to external auditors. This situation results in an expectations gap in relation to both the role of the auditors and the scope of the external auditing. In addition, the growing economic importance of consulting and the long years of auditor tenure is likely to impair auditor independence. This paper submits that the new form of auditing is not problematic but creates issues. First, the expectations between the users of the financial reports and auditors are wider. Second, auditors' independence is damaged due to the long years of auditor tenure and dependence of non-audit fees generated from consultancy services that not related to audit. The recent law reforms issued by the European Commission has brought some important provisions in terms of filling the expectations gap, reinforcing auditor independence and reducing the familiarity threat. EU's relatively strict rules on provision of non-audit services and audit firm rotation are expected to have an important impact in the audit market. A critical analysis of the new EU law is submitted with some policy recommendations.

Keywords: Auduting, Consultancy, Reforms, EU Law

1. NTRODUCTION

Since the 1200s, and the early development of firms, auditing has existed (Watts and Zimmerman, 1983). External auditing was first used to check on managers on behalf of shareholders, in the manner of detectives (Shapiro, 2004). As a result, auditors used to serve the interest of the shareholders only. However, there have been significant changes in terms of auditors' role and their function. Users of audited reports have been extended beyond shareholders. Today, external auditing is necessarily important for investors, but also depositors, regulators, suppliers, creditors, and anybody who is likely to use audited financial reports, thus assigning a public role to auditors as gatekeepers of sorts (Shapiro, 2004; Coffee, 2006).

External auditing refers to the relationship where corporate management hires an independent external auditor to review and approve annual financial statements. Annual financial statements include the balance sheet and the related statement of income, retained earnings and cash flow for the completed fiscal year (Ronen, 2010). Financial audit is the process of checking the accuracy of these annual financial statements and compliance with the related accounting standards (Ronen, 2010).

In the EU, it is a legal requirement that listed companies' financial statements should be audited by an independent external auditor (Directive 2006/43/EC - as amended). Member States' competent authorities approve statutory auditors (natural persons) or audit firms (legal persons) to perform statutory audits at the national level (UK, Companies Act. 2006, section 489). For instance, in the UK, only statutory auditors recognized by supervisory bodies, such as the Institute of Chartered Accountants of England and Wales (ICAEW), are allowed to perform statutory audits of public companies (UK, Companies Act. 2006, section 1212). In general, the statutory audits of PIEs are provided by the audit firms rather than individual statutory auditors. Auditors have to apply certain standards, e.g. IFRS, ISAs, auditors' code of ethics (IFAC, 2010), when they perform audits of publicly listed companies. In addition, they are subject to regulatory supervision of public oversight authorities, e.g. PCAOB in the US and FRC's Audit Quality Review (the former Audit Inspection Unit) in the UK.

The audit process is constituted of three main stages. In the first stage, the auditor gains understanding of the audited company and its activities through assessment of accounting system and internal control mechanism (Porter, Simon, and Hatherly, 2003, p. 149). This stage involves evaluation of internal controls in detail, as to whether the transactions and account balances are parallel to company records and whether there are any material misstatements. If the auditor is satisfied with the accuracy of internal control records from the evidence gathered from stage one,

he (or she) continues with the second and final stage, to issue the audit report. However, if the auditor finds additional risk factors, such as asymmetric records with the transactions and internal control reports, then the scope of the audit is reset (Ronen, 2010, p. 191). In the third and final stage, the auditor issues an audit report to provide information to shareholders and other third parties. The auditor's opinion on the financial statements is meant to provide a reasonable assurance on whether financial statements are free from material misstatement caused by fraud or error, and whether they are in accordance with the related accounting standards and laws (ISA 700, para. 10). The auditor's opinion should also note any circumstances that may affect the financial stability of the audited entity.

If the auditor is satisfied with the audit evidence, and that the financial statements give a true and fair view, and they are prepared in compliance with the relevant accounting standards and legislation, she issues an unqualified audit report (ISA 700, para 16). If unqualified, this audit report is a 'clean' audit report. The auditor may also decide to issue a qualified audit report due to misstatements in the financial statements or because she was unable to obtain sufficient evidence about the accuracy of the financial statements. Before issuing a qualified audit report, the auditor needs to modify the opinion in the report (ISA 700, para. 17). There are three types of modified opinions: a qualified opinion, an adverse opinion, and a disclaimer of opinion (ISA 705, para. 2). If there are material misstatements, but there is nothing pervasive to the financial statements, the auditor issues a 'qualified opinion' (ISA 705, para. 7). This is still a clean opinion. If the misstatements are material and pervasive to the financial statements, the auditor expresses an 'adverse opinion' (ISA 705, para. 8). This is an unclean audit opinion. Lastly, the auditor may issue a disclaimer of opinion when she is unable to obtain sufficient appropriate audit evidence regarding the accuracy of financial statements (ISA 705, para. 9). The auditor disclaims the audit opinion because of the risk that undetected misstatements could have a material and pervasive effect on the financial statements.

2. DUAL ROLE OF AUDITORS

The history of auditing dates back to the early development of joint stock companies.[111] In the UK, this occurred with the enactment of the first Companies Act (Joint Stock Companies Act) of 1844, which recognized audit for English companies on a voluntary basis (Watts and Zimmerman, 1983, p. 628). The Companies Act of 1900 required audit for the first time; however, it did not define any rules to determine an auditor as qualified to perform audits (Porter, Simon, and Hatherly, 2003, p. 22). Thereafter, auditing did not develop as a profession in the UK until 1948 (Cosserat 2000, p. 5). Before then, directors or officers appointed by shareholders performed the audits of early joint stock companies (Watts and Zimmerman, 1983, p. 624). In line with its development, the objective of auditing has evolved over time.

2.1 Auditors as Detectives (Public Watchdogs)

During the late 1890s, in the early days of auditing, the objective of an audit was to check the consistency of internal records (book-keeping of company transactions) of the company (Cosserat, 2000, p. 6). This role mainly involves the detection of fraud and material errors in the accounts (Dicksee, 1892). As a result, auditors were only responsible to the company that they audited (Shapiro, 2004, p. 1034). The role of the detective-auditor was mainly to serve the owners of the company by confirming the consistency of internal records with the company transactions and to make sure that the treasurer was not cheating the owners.

The fraud detection role of auditors was also acknowledged in case law in the UK. The two cases of *London and General Bank (Re London and General Bank (No.2) 1895)* and *Kingston Cotton Mill Co Ltd. (Re Kingston Cotton Mill Co. (No.2) 1896)* re-stated an audit's objectives of detecting fraud and error. These cases also stated that auditors could not be expected to detect every fraud and error (*Re London and General Bank (No.2) 1895)* since they are watchdogs but not detectives or bloodhounds; they do have to show reasonable skill and care in their work, however (*Re Kingston Cotton Mill Co. (No.2) 1896)*.

2.2 Auditors as Certifiers (Gatekeepers)

In the 1970s, by the time of the development of the securities markets, small investors needed more information regarding the fairness of financial information included in companies' statements. Auditors were asked to approve information to be disclosed to a third party, namely to shareholders, investors or in general, to the public. Correspondingly, the objective of auditing moved from fraud detection towards ensuring the credibility of financial statements (Carmichael, 1974). From that time, providing assurance services was recognized as the primary role of auditors, while detection and prevention of fraud were assigned to the internal control mechanism designated by the management (Porter, Simon, and Hatherly, 2003, p. 27).

By the 1990s, the business risk approach was adopted in auditing (Porter, Simon, and Hatherly, 2003, p. 32). The business risk approach holds that audit failures[112] are not generated because of undetected fraud or error, but because of the uncontrolled operational risks in a company (Porter, Simon, and Hatherly, 2003, p. 33). Accordingly, in order to reduce the business risk, auditors started to focus on the provision of consultancy services and they acknowledged their responsibility to provide an opinion as gatekeepers regarding a firm's ability to continue as a going concern.

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[111] As it was translated from the original Medieval Latin text, in 1200, a constitution of English merchant guild (an early example of association of traders) at Ipswich had a provision for annual audit. See Charles Gross, *The Gild Merchant* 4 (1890) in Watts and Zimmerman, 1983, p. 616.

[112] Audit failure refers to issue a clean audit opinion on financial statements that are materially misstated.

3. MODERN AUDITING PROFESSION

Today, auditors are seen as gatekeepers (or certifiers), rather than detectives. From a gatekeeper's perspective, the objectives of modern auditing can be considered to be the provision of a review of the company's accounts, to examine financial statements to ensure they are free from material misstatements, omissions and misleading information, and to express an audit opinion including any concerns regarding a firm's ability to continue as a going concern.

Public companies are required to disclose financial information to the public once shares are offered, and for as long as they are traded on stock exchanges (Directive 2004/109/EC – as amended, Articles 4 and 6). Auditors then review and certify the financial information disclosed to third parties. There are a number of users of this verified financial information: namely, the existing company shareholders, potential shareholders (investors), regulatory agencies, and any third party that might be involved in the operations of the company. Investors use the audited financial information to decide whether to make an investment in the company. Regulatory agencies seek the efficiency of financial markets through accessible reliable and sound financial information. All of this has the aim that stock prices reflect companies' present reliable information and that the market determine the correct prices of securities (Shapiro, 2004, p. 1041).

However, this dual role of auditors might cause conflicts of interest. On the one hand, auditors have to perform an auditor-as-detective role to the company owners (existing shareholders). On the other hand, certifier auditors verify disclosed financial information and approve financial stability - whether it is financially sound to invest in the company. Though detective-auditing has a public watchdog role, certifying auditing may give auditors an incentive to please the client instead of protecting the interest of the public.

In certification auditing, public companies hire auditors to verify the disclosed financial information so that they can induce the potential investors to make investments in their companies. Here, there is a risk that the auditor might favor the company, even though the user of this information is a third party (potential investors). There is a risk that the auditor might become an advocate of the company, instead of acting like an impartial detective, and serving their public watchdog role (Jenkins and Lowe, 1999). This conflict of interest arises naturally because of the auditor-client relationship, i.e. auditors are hired and paid by the audited company (the client), and they have an incentive to please their clients.[113]

Furthermore, auditing is now extremely focused on adding value to the audit (Jeppesen, 1998). Value-added services include detecting, understanding, and analyzing the business risks that the audited firm is involved in, and building a strategy to manage and control those risks (Jeppesen, 1998, pp. 522-525). Value-added auditing is delivered in the form of consulting. Consulting includes strategic management planning, internal audit outsourcing services, risk assessment business performance, and e-commerce to name but a few. Today, it is common that audit firms provide advisory services in addition to the traditional form of audit (i.e. the verification of financial statements). In fact, it has now become the case that, because the fees generated from the audit are lower, auditors are seeking to provide non-audit services to the same client or to non-audit clients (Max Planck Institute, 2012, p. 5) . This situation is called 'lowballing'. Via lowballing, auditors seek to compensate for low audit fees through the provision of consultancy services for higher fees. Revenues generated from advisory services form an important part of the revenues of the Big Four audit firms. To give an example, as of 2015, 37.47 % of the global total revenue (US$ 45.455 billion out of US$ 121.3 billion) of the Big Four is generated by advisory services.[114]

The provision of non-audit services to an audit client, namely advisory services, builds an economic relationship with the client (Jeppesen, 1998, p. 525). When the auditor gives advice on the business of the client, the auditor gains an interest in the financial success of the client (Mautz and Sharraf, 1961, pp. 268-269). There is therefore an economic interest for auditors in the provision of consulting services. As a result of the growing importance of advisory services, auditors became less dependent on reputations for high-quality auditing (Coffee, 2002) and more dependent on their relationships with the client for the sake of consulting services (Briloff, 1990).

The growing economic importance of consultancy services converts auditing into a new form of doing business. This new form of auditing builds a mutual economic interest between auditor and client. As results, auditors primarily consider the business demands of the clients, and consider less the interests of the users of financial statements (Jeppesen, 1998, p. 525). This new form of auditing might result in independence issues. Auditor independence requires the absence of economic interests that could cause a conflict between auditor and client. Economic interest in an audited company makes it difficult for auditors to perform independent auditing: there is a risk of 'self-serving'.

4. PROBLEMS WITH THE NEW FORM OF EXTERNAL AUDITING

4.1 Does the public expect too much from auditors?: the expectations gap

Auditors are not only asked to perform a detective-auditor role, but they are also called to consider the business risks which includes the assessment of whether an entity will fail to achieve its objectives (Tatum and Stuart, 2000). There is a general perception among stakeholders that financial statements with unqualified audit reports guarantee the financial health of the entity (Valukas, 2010). However, audit opinion does not have to give such

[113] In a study, a group of business students were assigned to be the auditors of a fictional company A. The other group assigned as auditors of another fictional company B that wants to take over the A. The figures of the sellers' auditors show higher value than the figures of the buyers' auditors. See (Shapiro, 1984, p. 1041).

[114] Data extracted from the global annual review reports of 2015 of the Big Four audit firms.

assurance regarding the future sustainability of the entity.

The number of collapses and major fraud incidents called for increased accountability and hence, changes in perceptions of auditors' role (e.g. the Arthur Andersen's financial chicanery in Enron case). Nevertheless, auditors are not primarily responsible for the prevention and detection of fraud; instead, this role falls to the management (ISA 240). Auditors are required to show reasonable skill and care to detect and report fraud (*Re Kingston Cotton Mill Co. Ltd. (No.2)* 1896). The term 'reasonable' causes ambiguity, however, and therefore results in an expectations gap regarding the stakeholders' understanding of the duties of auditors.

As UK case law has recognized, it cannot be expected of auditors to detect every fraud and error in financial statements (*Re Kingston Cotton Mill Co. Ltd. (No.2)* 1896). It is likely there would be undetected material misstatements in the financial statements even if the auditor showed reasonable skill and care. Moreover, capital markets become more sophisticated and complex every day. It is true that neither regulators nor auditors fully understand today's complex financial markets (Leeson, 2007). It gets more difficult for auditors to audit effectively and provide an assurance in such complex markets (Sikka, 2007).

4.2 Dependence on non-audit fees: impaired auditor independence

In capital markets, investors use a company's financial statements in determining their investments, so as to make the highest return on their investment with the lowest risk (Healy and Krishna, 2001). There is a possibility that managers will accidently - or deliberately - misrepresent financial statements. Thus, external auditors as are needed as independent outsiders to assure investors that financial statements prepared by the management are presented accurately. Investors consider external auditing as an assurance regarding the reliability of financial statements only because external auditors have professional qualifications and knowledge and they are independent of the management. If auditor independence were impaired, their financial statements will no longer be trusted.

The professional qualification of an auditor is important for detection misstatements and errors in the financial statements, so that the accuracy of the financial statements is ensured. DeAngelo defines audit quality as the auditor's ability both in discovering corruption in financial statements, and in reporting it (DeAngelo, 1981, p. 186). An auditor is only able to detect fraud if she has the professional qualification(s), knowledge, and experience to perform an audit (Flint, 1988, p. 48). Auditors' ability to report a breach or misrepresentation in financial statements depends on her independence (Citron and Taffler, 1992, p. 344). If the auditor is not independent, she will have no incentive to express their competence to detect fraud.

Nevertheless, independence is an ambiguous concept; it is not easy to ensure. In the existing literature, auditor independence is analysed according to two concepts: independence 'in fact' and independence 'in appearance' (Dopuch, King and Schwartz, 2003). The former concept refers to the attitude of being impartial and objective, while the latter refers to the perception of independence by users of financial statements, namely shareholders and investors (Dopuch, King and Schwartz, 2003, p. 84). Auditor independence can be ensured in a number of ways. First, auditors, as certified public accountants, are subject to professional discipline and the oversight of national public bodies (e.g. the Conduct Committee,[115] part of the Financial Reporting Council (FRC) in the UK). Second, auditors are required by law to be independent meaning that there may not be any close ties to, or financial self-interests in the audited company (Directive 2006/43/EC – as amended, Article 22(2)).

The audit contract is signed between the auditors and the managers of the audited company who actually pay the auditors with the financial resources of the company. Audit firms are inherently commercialised institutions that seek to increase their profits and market share and therefore, they might forget their actual clients and become capitalist institutions simply trying to maximize their profits. As a result, there is a risk that they are not able to deliver independent audits when they are dependent upon company directors for their fees and have an incentive to please the company management, in order to secure their non-audit fees.[116] This situation might suggest that auditors would avoid disputes in order to be reappointed (or not to be dismissed).

Even if the auditor is independent 'in fact', they have to show this independence to the public. Being independent 'in fact' is an ambiguous concept and difficult to interpret in practice, because it depends upon auditors' mentality in their audit work (Richard, 2006, p. 156). Even though it might not be possible to prove mental independence to the public (i.e. objectivity), there are a number of ways to evaluate the degree of independence 'in appearance'. These are: auditors' dependence on non-audit fees, the length of auditor tenure, and the competitive environment, i.e. the choice of auditor (Arnold, Bernardi and Neidermeyer, 1999). The provision of consultancy services and dependence on non-audit fees may impair independence 'in appearance'.

4.3 Long years of auditor tenure: the familiarity threat

The 'familiarity threat'[117] is explained as where the auditors have been involved for many years in audit engagements. The long years of auditor tenure could make auditors less skeptical because of an ongoing relationship with the client and this may cause auditors failing to spot misrepresentation in financial statements because she would be looking

[115] The duties of the Professional Oversight Board are assigned to the Conduct Committee.

[116] Ronen indicated a saying to highlight the independence issue of auditors; '*whose bread I eat his song I sing*" (Ronen, 2010, p. 189).

[117] Familiarity threat may occur due to a long or close relationship with a client where in professional accountant becomes too sympathetic to the interests of the client (IFAC Code of Ethics 2010; para. 100.12).

from the perspective of their client (Arnold, Bernardi and Neidermeyer, 1999, p. 50; Klimentchenko, 2009).

The Directive 2006/43/EC required the key audit partner to be rotated every seven years (Directive 2006/43/EC – as amended, Article 42), however it did not state any rotation rules for audit firms. Hence, it is common across EU listed companies to have the same audit firm for many years. For example, according to a survey, it is common in the EU (except in Italy)[118] to have the same audit firm for more than 7 years (London Economics, 2006, p. 73). Having the same audit partner for many years is also evident in the UK financial markets where the average tenure rate for FTSE 100 companies is 48 years on average (House of Lords, 2011, p. 13).

The trend to have the same audit firm for many years is hazardous for auditor independence in a number of ways. First, this situation might impose pressure on auditors not to lose the client, say in the UK market, for another 48 years on average. Because of this pressure, it would be difficult for auditors to carry out statutory audits with a questioning mind (i.e. professional scepticism), which involves critical evaluation and questioning existing information in the financial statements provided by the management. Therefore, they would be reluctant to detect and report errors in the financial statements.[119]

5. AN OVERVIEW OF THE EU LAW REFORMS IN TERMS OF THE PREVAILING PROBLEMS IN THE AUDIT MARKET

The global financial crisis of 2008 witnessed not only the failure of banks and financial institutions but also the failure of auditors (Sikka, 2009). This has damaged the reliability of financial statements and statutory auditors. As a response, in October 2010, the European Commission issued a Green Paper entitled 'Audit Policy: Lessons from the Crisis' that emphasised the role of the auditors in financial markets and their relation to the financial crisis (European Commission Green Paper, 2010). Following the Audit Green Paper, in November 2011, the European Commission issued two law proposals: a Directive to enhance the single market for statutory audits (Directive 2014/56/EU - amending Directive 2006/43/EC) and a Regulation to increase the quality of audits of financial statements of Public Interest Entities (PIEs) (Regulation No. 537/2014). Both law proposals came into affect on May 2014.

PIEs often involve cross-border activities across the EU. Audit practices and regulation in Member States, however, are not homogenous, but have different auditing standards and different approval/registration rules for auditors and audit firms. This situation creates a high administrative burden on the audit of PIEs. Therefore, regarding the audit of PIEs, a separate legal requirement was suggested (European Commission Impact Assessment, 2011, p. 9). Although the general requirements for a statutory audit of PIEs (i.e. the requirements for the registration/approval of auditors) dealt with the existing Directive 2006/43/EC (as amended by Directive 2014/56/EU),[120] the specific additional requirements regarding the conduct of statutory audits of PIEs were set by this Regulation. Hence, the revised Directive and the Regulation must be read together.

5.1 Filling the expectations gap

It has long been the subject of a number of discussions as to what sort of information auditors should be providing to stakeholders.[121] It is highlighted that users cannot find what they are looking for in auditor reports since the most common audit opinion is a "*template*", (European Commission Impact Assessment, 2011, p. 13) providing a standard content.

Previously the law did not refer explicitly the content of the audit reports however, both the Directive 2014/56/EU (amending Directive 2006/43/EC) and the Regulation No. 537/2014 now govern what needs to be included in the audit report. Accordingly, audit reports shall indicate that the statutory audit was conducted in accordance with ISA (Directive 2006/43/EC – as amended, Article 28(1)), identify key areas of risk of material misstatements in the financial statements (Regulation No. 537/2014, Article 10(2)/c-i), explain to what extent the statutory audit was designed to detect irregularities, i.e the fraud (Regulation No. 537/2014, Article 10(2)/d), declare the prohibited non-audit provisions were not provided (Regulation No. 537/2014, Article 5(1)) and that the statutory auditor(s) or the audit firm(s) remained completely independent (Regulation No. 537/2014, Article 10(2)/f). Also, in a separate audit report, auditors shall provide a statement on the situation of the entity especially on the assessment of the entity's ability to stay as a going concern (Regulation No. 537/2014, Article 11(2)/i).

5.2 Reinforcing auditor independence

Auditor independence is one of the key elements reflecting the reliability of financial statements. An auditor's ability to reflect her professional judgement freely on the audit report is also necessary for audit quality. However, some auditors might be involved in certain situations where independence is impaired due to a conflict of interest. The provision of certain types of non-audit services, such as bookkeeping and tax consultancy for example, could impair auditor independence because there is a risk in this situation that auditors become more dependent on non-audit fees (Briloff, 1990).

There is no homogeny regarding the provision of non-audit services to the audit client in the EU, since Article 22 of previous Audit Directive

[118] In Italy, there is a regulatory requirement for mandatory rotation for audit firms every 9 years. See (European Commission Impact Assessment, 2011, p.170).

[119] Also, auditors who have long-tenure tend to be reluctant to make adjustments regarding errors in the prior audit periods because this would mean admitting past mistakes (Bazerman, Loewenstein, and Moore, 2002).

[120] Articles 39 to 44 and 22 (2) of the Directive 2006/43/EC will be deleted to be integrated to the Regulation on specific requirements for the statutory audits of PIEs.

[121] For a brief history of the last 100 years of the expectations gap, see Humphrey, Moizer, and Turley,1992.

2006/43/EC has been interpreted differently by Member States. Directive 2006/43/EC states that the auditor shall not carry out a statutory audit if there is any direct or indirect financial, business, employment or any other relationship between the auditor (or audit firm) and the audited company (Directive 2006/43/EC – as amended, Article 22(2)). Directive 2006/43/EC granted Member States discretionary powers to take necessary steps to ensure the appropriate safeguard on the auditors' independence. As a result, Member States take different approaches in terms of the provision of non-audit services. For instance, the French Code of Ethics banned the provision of non-audit services (French Code of Ethics, Articles 10, 23, and 24; ESCP Europe, 2011, p. 154), while the UK's approach is less restrictive since there is no such ban with respect to the provision of non-audit services to the audit client.[122] Therefore, it is common in the UK that audit firms, including the Big Four, offer consultancy services to their audit clients,[123] and listed companies disclose fees paid to auditors for those services (UK, Companies Regulation, 2008 No. 489).

Although certain types of non-audit services not related to the audit work can impair auditor independence, it is claimed that provision of non-audit services can improve auditors' skills and knowledge, and this may enhance their audit quality in general (Lennox, 1999). It could be suggested that auditors should not be forbidden to provide all consultancy services to the audit clients. However, it might be necessary to divide non-audit services into categories with respect to their degree of threat to auditor independence.

The first category is the type of non-audit services that have a direct impact on the accounts, these services are consultancy services that are not related to audit and will have a direct impact on auditor independence. In the recent law reforms, the European Commission strictly banned the provision of this type of non-audit services. These services are outlined in Article 5(1) of the Regulation No. 537/2014: bookkeeping, payroll services, legal services, services related to the audited entity's internal audit function, and human resources services.

The second type of non-audit services can be necessary for auditors to perform the audit work more effectively, e.g. tax services and valuation services (Regulation No. 537/2014, Article 5(1)/a/i, a/iv to a/vii and f). The provision of this type of services can be allowed by the Member States if these services have no direct effect on the audited financial statements and the independence of the audit firm and the auditor are secured (Regulation No. 537/2014, Article 5(3)/a/c).

The third category includes services that are termed audit-related financial services, encompassing services required by legislation or contract to be undertaken by auditors.[124] The provision of non-audit services is necessarily problematic when non-audit fees are higher than audit fees. This situation can increase auditor dependency on non-audit fees and hence, mitigate independence.[125] Therefore, the total fees for non-audit services other than those referred in Article 5(1) of the Regulation No. 537/2014 shall be limited. Accordingly, the total fees for such services shall not exceed 70 % of the average fees paid in the last three consecutive financial years (Regulation No. 537/2014, Article 4(2)). Furthermore, when a substantial part of an audit firms' revenues (i.e. 15 %) originate from a single audited entity the auditor shall disclose the fact with the audit committee and consider the treats to their independence (Regulation No. 537/2014, Article 4(3)).

5.3 Reducing the threat of familiarity

Long and close auditor engagements with the same audit firm are likely to jeopardize auditor independence because there is a risk of getting overfamiliar with the audited company. Key audit partner rotation by itself is not enough to reinforce auditor independence. In order to reduce the threat of familiarity, two types of auditor rotation might be suggested: internal and external rotation. While internal rotation allows a different audit partner from the same audit firm to engage in the audit for the next period (tendering), external rotation requires a change of audit firm (rotation).

In addition to tendering (rotation of the key audit partners every 7 years – with a three year cooling period), the Regulation No. 537/2014 has brought a mandatory rotation policy for audit firms (Regulation No. 537/2014, Articles (7) and (4)/b). In this respect, audit firms would no longer be appointed for many years, but the maximum duration will be 10 years (or 24 years in case of joint audits), including the renewed engagements (Regulation No. 537/2014, Article 17(1)). In addition, there shall be a four years gap (cooling period) if the same audit firm were to be appointed after the maximum period of ten years (Regulation No. 537/2014, Article 17(3)).

6. CONCLUSIONS AND RECOMMENDATIONS

It is true that financial scandals and crises give lawmakers opportunities to regulate the market. While crisis time regulations were seen as lifesavers during the crisis time, there is a risk that they have become an over-reaction to corporate scandals and not be effective, but represent only symbolic actions (Tomasic and Akinbami, 2011, p. 272-273). As for the European Commission's law reforms, it is important that they provide a practical response to the issues, rather than following a regulatory routine (Kandemir, 2013). Although time will tell as to when

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[122] Auditing Practices Board (APB) Ethical Standards state that audit firms should consider any possible threat to independence when accepting a proposed engagement with non-audit services (APB Ethical Standard 5 (Revised), para. 14).

[123] For instance in 2006, PwC received £700.000 fees not related to audit from Northern Rock (House of Lords, 2010, 24).

[124] Audit related services include services such as reporting required by law or regulation to be provided by the auditor, reviews of interim financial information, and reporting on regulatory returns (APB Ethical Standard 5 (Revised), para. 54).

[125] To give an example, Enron's auditor Arthur Andersen received US$ 25 million for audit fees and US$ 27 million for non-audit fees in 2000. (Benston and Hartgraves, 2002).

we might see the actual results of these reforms in the EU audit market, possible effects of these reforms could be estimated in bold outline.

To begin with, it is acknowledged that the European Commission aimed to reduce the expectations gap by improving audit reports to provide more information to stakeholders and to the public. Expanding audit reports that include more information may indeed be helpful to the users of the audit reports in understanding the work of the auditor and the business of the audited entity. Hence, the expectations gap is likely to be reduced by the expanded content of public audit reports. Nevertheless, the long list of additional information to be included in audit reports (almost 38 provisions with nine clauses) create an extra regulatory burden on auditors and audit firms.

Secondly, the European Commission's proposal on the prohibition of provision of non-audit services has its remits because auditor dependency on non-audit fees is likely to impair auditor independence. However, the Commission's proposal for large audit firms to limit the provision of related non-audit services to the audit client is rather restrictive. These services are closely related to audit work and therefore are less likely to have a negative impact on independence. It is clear that the business of the large audit firms is likely to be affected by this restriction.

Thirdly, the policy options presented by the European Commission for the mandatory rotation of audit firms is expected to create a healthy competition environment. This policy will also increase the choice of auditors in the market, as mandatory rotation is likely to break up the barriers to mid-tier firms (European Commission Impact Assessment, 2011, p. 57).

Nevertheless, mandatory audit rotation is not unproblematic. Mandatory audit firm rotation results in significant costs because of a substantial amount of specific assets is destroyed and has to be rebuilt every time a rotation takes place.[126] For example, auditors have to have knowledge of the audited company's accounting system and internal control; the audited client must in turn make resources available for the audit (Arrunada and Paz-Ares, 1997, p. 34). The auditor as well as the audited client must rebuild these audit routines every time a rotation takes place, which is costly for both sides of the engagement.[127]

It can be concluded that there is no proof of a negative correlation between auditor continuity and the degree of auditor failure. However, there is also no empirical evidence that suggests that audit firm rotation will enhance competition in the market, but it is likely to increase audit costs. Thus, until now, regulators have focused on the rotation of key audit partners instead of audit firm rotation (Directive 2006/43/EC – as amended, Article 42). The mandatory rotation of audit firms may not be the best remedy for increasing competition, but it can be considered an effective tool in terms of preventing auditors from becoming overfamiliar with the audited company. Alternatively, voluntary rotation might be suggested. However, if the auditor resigns voluntarily, investors might consider this resignation a warning sign for the company and this would therefore not be a perfect alternative to mandatory rotation.

[126] It is estimated by PwC that switching costs for the audited company could be up to £1 million, while Office of Fair Trading (OFT) found the average of FTSE 100 audit fees was £5.2 million (OFT, 2011, para. 516).

[127] Also, it should be taken into account that many of these assets may not be rebuilt immediately, such as the trust that builds between two parties over the past successful audits (Arrunada and Paz-Ares, 1997, p. 45).

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"CORPORATE ACCOUNTABILITY: MAJOR ACTORS, INNOVATIVE INSTRUMENTS AND PERFORMANCE" Paris, November 24, 2016

Concept of the workshop: During past two decades the world has witnessed the growing importance and visibility of a range of initiatives led by businesses, social organizations and governments that was aimed at pressuring companies to behave in more socially responsible and accountable ways. This is a new development for many parts of the business world. Previously, the state was assumed to lead standard setting and behavioral norms for businesses in relation to most categories of stakeholders. When community organizations and interest groups wanted to change business behavior, they focused on changing the law. From the 1990s the focus changed, reflected in the emergence of new alliances and regimes of influence over business norms, linking together consumers, communities, workers and producers. Nowadays the issue of sustainability and accountability of business entities received a complex form and is continuingly changing. It is important to trace these changes, follow regulatory developments, business practice to identify stable fundamentals in corporate accountability and management practices and distinguish emerging trends that are going to occupy practitioners, regulators and academics minds in nearest future.

General information:

Date: November 24, 2016
Venue: ISTEC, Paris
Organizers: ISTEC Paris, Virtus Interpress, Virtus Global Center for Corporate Governance
Chairs - Remi Jardat, Professor, Director of Research, ISTEC, France - Alexander Kostyuk, Professor, Ukrainian Academy of Banking, Ukraine, Director at Virtus Global Center for Corporate Governance

Key Topics

- corporate social responsibility
- corporate sustainability
- corporate environmental performance
- the role of shareholders, board of directors and management of the company
- the role of stakeholders
- methods to evaluate corporate accountability
- corporate accountability in financial and non-financial companies
- impact of corporate accountability on the public wealth
- etc

Call for Papers Paper submission deadline: September 1, 2016
Notification of authors of accepted papers: October 1, 2016

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Papers should be submitted to Professor Alexander Kostyuk at alex_kostyuk@virtusinterpress.org and a copy to paris_2017conf@virtusinterpress.org

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