ROMANIAN ECONOMIC AND BUSINESS REVIEW

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GLOBAL TRENDS REGARDING THE INCREASE OF THE ROLE OF STATES IN INTERNAL AND INTERNATIONAL ECONOMIC RELATIONS. IMPLICATIONS FOR ROMANIA

Florin Bonciu*

Abstract

The paper identifies a number of causes that explain the increase of the role of states in internal and international economic relations during the past decade. The causes are both internal (such as the increase of inequality in developed countries, the demographic changes taking place in all countries, the climate changes, the implications of the beginning of the 4th industrial revolution) and international (the emergence of new economic powers in the world economy, the manifestation of military tensions and conflicts, the trend towards the rethinking and replacement of post World War II institutions and mechanisms). Under these new circumstances it seems that the only available entities that can attempt to provide at least reasonable solutions for the challenges mentioned above are the states which may alleviate the inequality issues by new redistribution mechanisms (such as the Universal Basic Income) or may try to find acceptable ways of better dealing with economic partners by means of bilateral and plurilateral negotiations, besides the existing multilateral frameworks. This new and rapidly changing international environment has certain implications for Romania that has to design a new strategy and vision for an effective and efficient participation in the global economy towards the time horizons of 2030 and 2050.

Key words: growth, development, role of states, inequality, the fourth industrial revolution

JEL Classification: H00, N00.

Introduction

The paper has in view to underline a trend that has manifested particularly since the onset of the economic crisis in 2008, a trend which brings back to the fore the role of states in economic growth and development, in finding solutions for: the social and political tensions generated by inequality or by the migrant crisis, the consequences of the 4th industrial revolution or the by the emergence of new centers of economic power.

This trend is relatively little studied in economic research either because it is relatively new or because it is rather contrary to many mainstream approaches that supported multilateralism, regional or even global governance and the decrease of the role of states during the 1990 – 2008 period.

By mans of more examples and arguments the paper points to the objective and historical nature of this trend: objective in the sense that it does not represent an option but a feasible response to new circumstances; historical in the sense that the increase of the role of states represents a temporary/specific response to temporary/specific circumstances.

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Literature review

The role of states in internal and international economic relations have been studied from different perspectives, function of the specific historical analyzed. During the formation of the capitalist system and of the European national entities during the 19th century and the beginning of 20th century, the role of states has been intrinsically related to the development of markets (Polanyi, 1944/2001), although the liberal economists saw often a conflict between markets and states (Blyth, 2013). The two world wars of the 20th century and the bipolar international order of the post World War II period had been dominated by the presence and actions of states which participated, function of their power and level of development, in the design and functioning of world order of the respective times (Kissinger, 2014). After 1990, once with the demise of the Soviet Union, the reunification of Germany and the accession of the Central and Eastern European countries to the Western European integration mechanism the role of states seemed to decline gradually as result of globalization, various forms of economic integration and a trend towards universalism (Wolf, 2001). The idea of a gradual melting of differences and national states and economies into a global economy governed by universal institutions (such as the International Monetary Fund or the World Trade Organization) led some authors to foresee an end of history (Fukuyama, 1992).

From another perspective, the relation between state and economic growth and development is linked in many cases to the relation between economic and political liberalization. While the economic liberalization has in view the securing of market economy mechanisms and the opening of an economy towards the world economic flows, the political liberalization has mainly in view the reduction of the role of state in economy. What is very interesting and relevant from the point of view of this research is the fact that relatively recent and comprehensive studies pointed out that the states that obtained better economic results in the long term were the states that achieved first an economic liberalization and only then a political liberalization (Tabellini, G., 2004). In other words, the studies showed based on the analysis of concrete examples that an economy can develop faster with a stronger state, while postponing the reduction of the intervention of state in economy for a later moment when a higher level of developed has already been achieved.

Similar conclusions have been drawn on the basis of the analysis of the evolutions recorded during the period 1960 -1980 in South Korea, Taiwan and Malaysia (Brown, J., 1993). These conclusions showed that states can play an important role in supporting the economic development by means of adopting coherent development strategies, implemented through pro-active policies for the stimulation of trade and industry. At the same time, an already important economic power, China (Gabriele, 2009) and a becoming important economic power, India (Mukherji, 2009) are using (although in different ways and with different mechanisms) the substantial intervention of the state for securing their spectacular economic growth and development.

1. The general context of the trend towards the increase of the role of states in internal and international economic relations

After the onset of the financial and then economic crisis that started in 2008 a number of phenomena that have begun several decades ago started to become more prominent. These phenomena indicated a change in the perception of globalization but also a change in the perception of the role of states in international economic relations.

The change of perception reflected a transition from an approach based on an ever increasing orientation towards global integration and global governance to an approach based on a return of the states as main actors in the world economy. Such a transition emerged in our opinion from the need to solve:

- a number of internal/domestic problems (such as the inequality manifested in the developed states or the need to eliminate underdevelopment in case of developing countries);

- some external/international or global problems which manifested in various ways, from military tensions and conflicts to climate change and the need to manage the economic, social and political implications of the fourth industrial revolution.

This transition from a global and integrative approach and perception to that of a multipolar system with variable geometry and characterized by eclectic and changing rules of the game has generated numerous conceptual, moral and even philosophical dilemmas. At the end of 2017 in United States there were references to a „moral crisis" based on the fact that three persons own more wealth than the poorer half of the population (meaning more than 160 million people (Collins & Hoxie, 2017). At the same time there are discussions about „Globalization 2.0" with reference to an increasing interdependence among different cultures and societies in general and between the Western culture and type of societies on the one hand and the rest of the world cultures and societies on the other hand (Barber, 2016).

After the onset of the 2008 crisis some authors mentioned a crisis of globalization but, in our opinion, the current situation reflects rather a new stage of globalization which attempts to integrate and to accommodate the quantitative accumulations from the previous periods with the new geopolitical, economic, technological, demographical and military circumstances.

Closer to Romania, The European Union has been confronted, first of all, with an identity crisis due to the profound changes that already took place inside and outside the organization (Navracsics, 2016). The design of a new European ideal, of a new model, represents a complex and collective work to which the member states have to participate, not only because they are the only actors to represent their respective people, but also because if the member states are not involved plenary and with reference to all decisions then any solutions and strategies would be incomplete and unsustainable.

In the previous decade the neoliberal doctrine supported the idea of an objective decline of the role of state in economy while in recent years officials of the European Union supported a federalist view (aiming at creating an United States of Europe). Such views have created the impression that the states are outdated forms of social and economic organization, that they are anachronic and those that support them are either nostalgic or less informed.

Anyway, the past two to three years witnessed several events that point to a contrary direction, that of an increase of the role of states both in providing for successful economic growth and development but also for solving problems such as underdevelopment, reduction of poverty, mitigating conflicts or managing technological changes.

Given these internal and international events as well as the existence of different views and approaches it is necessary, more than ever, to discuss, to explore and to understand different positions and their rationale. These discussions and explorations require interaction, dialogue and collaboration in order to reach a holistic vision of the world, based on the idea of synergy and not of a zero sum game. At the same time it is necessary to understand which are the key players in the global arena in order to secure their participation to discussions and negotiations.

The analysis of the global situation between 2008-2017, as well as of the different projections to time horizons related to 2030 or 2050, prove that the role of states has increased and will continue to do so in the following years from multiple points of view and in specific formats that will be adequate to the coming periods.

2. Arguments explaining the trend towards the increase of the role of states in the internal and international economic relations

In order to clarify if the increase of the role of states in the internal and international economic relations is only an accidental manifestation or a rather long term, objective phenomenon in the following we present a number of clear and verifiable manifestations that support the hypothesis of a long term phenomenon.

Among the arguments that support the idea that the role of states has increased in the past decade there are the following:

- During the whole post World War II period until the present moment important centers of economic power have emerged based on a significant role played by the respective states in economic growth and development (the cases of Japan, South Korea, Singapore and more recently, China and India);
- The manifestation of some problems related to economic disequilibria, demography, technological changes and climate change require the implication of states in order to identify and implement sustainable solutions;
- A number of United Nations initiatives related to solving or improving on some challenges that confront the world economy (such as poverty, underdevelopment, elimination of certain health conditions, improving access to education and information) have been carried out or are currently in progress with the participation of states (among them one can mention „Millennium Development Goals” for the period 2000 – 2015 and „2030 Agenda –Sustainable Development Goals” for the period 2016 – 2030)
- The emergence in the developed countries of some major problems related to inequality in wealth repartition require substantial changes in the fiscal systems and the design of new mechanisms of redistribution which can not be conceived without the intervention of the states;
- The emergence of certain problems which are related to the specific conditions of some European Union member states (the migrant crisis, banking crises, unequal development of regions). As the respective problems are specific they can not be solved with unique solutions applicable to the whole European Union and therefore they require the dialogue among the member states in order to clarify what is specific and what is common and therefore which solutions are effective and efficient;

- The emergence of numerous areas of military conflict in different zones of the globe (Middle orient, Ukraine, Syria, the far East) which imply conflicts among military powers and therefore among states. One can note in the past years a return to the use of explicit/military power to the detriment of the diplomatic power;

- The emergence of some major disequilibria in the area of international trade and investments. As results of these disequilibria the world economy is characterized by the existence of some states with huge trade surpluses (like Germany, China or Japan) and of some states with huge trade deficits (such as the United States of America). At the same time there are some massive international acquisitions/investments made by the states that have large amounts of capital (one can mention here the acquisitions made by China in the European Union members states or the acquisitions by international investors of 40% of the agricultural land in Romania). Under these circumstances the need emerged for the intervention of states for supporting national interests. This situation generated a trend that favor bilateral or plurilateral regulation of trade and investments to the detriment of multilateral/universal regulations. In this context President Donald Trump explicitly stated that the national interests can be better represented by means of bilateral agreements between states in which case each party expresses directly their points of view as compared to the situation when all parties have to reach a consensus (the case of the World Trade Organization) or when states are only indirectly represented (the case of the European Union where there is a common trade policy and where there is a unique position for all member states in the international organizations);

- The manifestation of some massive migrant flows towards the developed states which are relatively near the conflict zones required the intervention of the affected states for conceiving and implementing solutions aiming at solving and preventing conflicts, instability and social tensions;

- The manifestation under multiple forms of the need to redefine the institutions and rules that represent the international economic order, given that the old structures, such as those established in 1944 at Bretton Woods, are no longer adequate for the new characteristics of the world economy. This need involves negotiations among states because for the moment there are no other representative entities able to discuss and propose the rules of the game and the institutions to provide the governance for the international economic relations for the next three decades, that is at least until 2050.

The trends and circumstances mentioned above describe a large set of domains and phenomena where the intervention or participation of states has been, is and will be absolutely necessary or at least substantial.

Because in the previous parts the term „state" has been frequently used, some clarification is necessary. In all these formulation by „state" we have in view a form of organization for economy and society that allow an effective and efficient use of the resources available in order to attain desirable goals that refer to human development, sustainability and adequate interaction with the regional and global environment. In other words, the use of the „state" concept do not imply either the meanings and mechanisms specific to the states that existed at end of the 19th century and beginning of the 20th century or those specific to the period after World War II, when numerous states formed as result of the dismantlement of the colonial empires.

What is specific for the current period is a simultaneous manifestation of cycles and phenomena which determine the change of the balance of power among different regions and states of the world economy, but also to the change of the ways in which economies and societies are organized and function as result of the consequences of the 4th industrial revolution.

Even if the states are not at all the most efficient and effective entities for managing the challenges determined by the 4th industrial revolution, they are for the moment the only ones available and responsible, in their capacity as entities that provide governance for the respective economies and societies, as well as the interaction with similar entities (that is states) that cooperate and confront in the global arena.

Conclusions

The last decade has been characterized in the global arena by a number of significant changes that somehow brought back the states as important if not main actors for governing both internal or international issues, be they economic, technological, social, political or military. Such changes have included the emergence of new centers of power (such as China and India), the coming back of Russian Federation on the main stage of world order, the inequality issue that started to affect many developed countries, the migrant crisis that changed the political agenda in many European Union member states, the already manifest consequences of the 4th industrial revolution.

The new internal and international context asked for immediate and concrete actions that could not be taken by other actors than states. Due to this circumstances the states that are coherent and consistent over long periods of time, those that have clear visions and strategies are definitely at an advantage.

Given these trends and phenomena Romania may consider strategies and action programs that needs to be at the same time well grounded and consistent and coherent. Among the elements that have to be included in such strategies and action programs some are, in our opinion, essential:

- The selection of a country objective that is both clear and easily quantifiable. In our opinion this country objective should be that of achieving the developed country status which can be validated by the accession the membership of the Organization for Economic Cooperation and Development (OECD);
- The redefining, rethinking and acceptance of the national specifics, from a historical, geographical, cultural, social and economic perspective, as well as the definition of the national interest, on the basis of the previously mentioned specificities;
- The identification, based on the existing international experience, of those fields of activity in which the intervention of state (in the most open, flexible and operational understanding of this concept) is both necessary and effective for solving some problems and challenges of high actuality and significance (in the fields of infrastructure, education, health care, energy, high technologies);
- The preparation of a specific position based on the national interest for acting in a future internal and international context, areas in which changes are fast and already underway;

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TRENDS AND CALENDAR EFFECTS IN MALAYSIA'S STOCK MARKET

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Nur Hanis Hazwani Binti Husni*

Abstract

Investing can help a person's wealth to generate more, and investing in stock is proven as one of the most profitable forms of available investment. The benefits gained in stock broking are immediate Buy/Sell which investor can sell part of their investment any time and at low transaction cost. However, investing in stock will require investor to observe the market, as market can be a volatile place and investor need to acquire knowledge of what they actually are doing. This study will discuss the price trends over the year, and how it will get affected by the seasonality in Malaysia, which also known as the calendar effects. The factor to be investigated in this study is the price on holiday's season, the January effect or any other monthly seasonality. The daily price of KPJ Healthcare Berhad for the year 2011 is the sample was chosen in this study. Further this study, data used is derived from the weak-form efficient markets hypothesis, which is the price history and case study. Regression method is used in this study in order to help achieving the findings. This should be a continuous study, and adding on more other factors, such as wars and economic crises, and traders, investors and other speculators.

Keywords: Stock, Malaysia, Calendar effect, Investment and KPJ Healthcare Berhad

JEL Classification: G10

1. Introduction

Calendar effects is an anthology of various theories that believe on certain days, months or times of year will be in the above-average or below-average price changes in market indexes, which consequently represent excellent or terrible period to trade. Chin (2012) believes that psychological biases restrain the traders from making 'rational' decisions, which also may due to speculators that rise on festive season. Tahir (2008) discussed that the occurrence of seasonality in stock market involves the possibility of gaining normal return by market timing strategies, but their continuation is believed to be an anomaly since it is depart from the Efficient Market Hypothesis (EMH). Gao and Kling (2005) believed that calendar effects will not affect the market in a long term as investors will learn from their previous experience. Garg, Bodla and Chhabrathe

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(2010) propose that stock markets are still sensitively involved with the seasonal anomalies although the growing use of information technology and various narrow growths.

There are believes that stock price falls each time festive season arrived. According to Gao and Kling (2005), the literature on monthly effects is linked to tax-loss trade scheme and behavioural characteristics. Rozeff and Kinney (1976) demonstrated that US's stock market return are extensively larger in the first month of the year compared to other months. Cole, Kastens, Hampel, & Gow (1999) advise that the seasonality may rise the profit opportunity provided historically chronic seasonal patterns continue into the future.

Other than that, it might due to speculation which investor selling their holding in order to gain cash in return. After festive ended, they will again buy new holding, from the bonuses they gained. Nevertheless, efficiency of the market plays a big role. Efficient market is a protection scheme to investors where the investors will only get the same profit as other investors and also protection against large losses. However, if a calendar effect actually exists, for a short term, trading based on a monthly sample of income should yield astonishing income.

Previously, various studies were performed to verify the effect of calendar anomalies to the stock market. These studies were held worldwide, and also in different markets and each researcher used diverse occasion gap in order to get findings. Normally, the standard experimental findings are reliable with the occurrence of a calendar effect. As argued by McGowan and Yakob (2008), these conclusions encourage advance study into the issue by enlarge the scale of study further than western calendar effects.

McGowan and Yakob (2008) also believed that most of the documented empirical findings are consistent with the presence of a calendar effect. Each country have different main festive season and so does Malaysia. Since Malaysia is a country with various ethnics, it celebrates more festive than other countries. In Malaysia, there are four main festive seasons which are Hari Raya Aidilfitri, Chinese New Year, Deepavali and Christmas. Apart from that, there are also few Bumiputeras (native people of the land) festive of such as Thaipusam and Wesak Day.

Hari Raya Aidilfitri can be considered the main festival season in Malaysia, entertained by population in Malaysia. This followed by Chinese New Year, which is the second entertained by population in Malaysia. It is behind logical when people consider that the stock market will reaches its highest level before the Chinese New Year celebration. Most investors in Malaysia keep stocks as their asset, and will need to liquidate them when they are in need of quick cash.

This paper is generally discussing on the four main seasons, together with January effect and weekend effect. Based on previous studies, this study is designed to gain further support that can be used to discover and clarify the valid existence of calendar effect. Data used in this study is a year stock price of the year 2011 of KPJ Healthcare Berhad, which is traded in Bursa Malaysia. The findings will be added with literature review of previous studies done for the understanding of stock price behaviour.

2. Literature review

Borges (2009) in her study advises that there is no strong proof of across-the-board calendar effects, as the majority flattering facts is only country-specific. This is due to different country has different holiday breaks, will eventually affect their trading behaviour.

It is believed that in every festive season, the stock price falls, due to speculator which is investor will sell their stock to get back return in cash term. After the festive season ends, they will again start investing, to gain more wealth. As in Malaysia, there are four main festive seasons, which is Hari Raya Aidilfitri for Muslim, Chinese New Year for Buddha, Deepavali for Indian and Christmas for Christian.

The most important calendar anomalies that bring effect to most of world's stock price are the January effect and the day-of-the-week effect. The January Effect, which also known as the turn-of-the-year was first observed by Persons in 1919. as argued by Gao and Kling (2005), the main reason that are believed effect the tendency of realize losses in December are due investor want to decrease the tax amount they needed to pay at the end of the year.

Sutheebanjard and Premchaiswadi (2010) testify that the day-of-the-week effect, which also known as weekend effect, is the trend of stocks to reveal comparatively large returns on Fridays compared with Mondays. The studies on day-of-the-week effect have been fragmentary since 1930 by Kelly.

2.1 The main calendar anomalies in the world stock market

There are various studies performed to clarify the existence of calendar anomalies in the world's stock market. Sullivan, Timmermann and White (1998) argued on this topic using 100 years of daily data and a bootstrap method. They found that these anomalies are no longer remain significant in the current stock market, but they believe that further study should be perform by using different set of variables and methodologies. Hansen, Lunde, and Nason (2005) believe in order to clarify the consequence of calendar effects, it is essential to organize the entire anomalies to avoid data mining biases and also false results. Using 25 stock indices and simple generalize-F test, from ten countries as data, they found that element of time difference in calendar effects is not reliable with methodical seasonal variation in stock market.

Gultekin Brothers (1983) used a nonparametric test developed by Kruskal and Wallis (1952), and was able to proof the existence of seasonal patterns in the stock markets in most of the major industrial countries especially in January. To proof this, they use indices prices gathered from the International Financial Statistics from January 1959 until December 1979.

Hellström (2002), checked data which covers 207 stocks on the Swedish stock market from year 1987 to 1996, and was able to confirm the existence of day-of-the-week and month-of-the-year effects. Although the present of these anomalies is relatively small compared to other factors, the effects are big enough to manipulate other forecast algorithms.

A study in US's stock market which consists of data from 1 July 1963 to 31 December 2008 was performed by Grimbacher, Swinkels and Vliet (2010), and verified that Halloween and turn-of-the month bring strongest effects fully diminishing January effect, weekend effect and holiday effect to zero. However, in opposed to that, Brusa, Hernandez and Liu (2011) examined a daily returns daily stock returns of 30 firms in the Dow Jones Industrial Average (DJIA) index, the NASDAQ index which their sample period are between January 4, 1988 to December 30, 2005 and found that the trading volume and illiquidity have a momentous effect on Monday stock returns. However, they were unable to illuminate the reverse weekend effect. Lamb, Ma, Pace and Kennedy argued using data from 1897-1993 using various test including T-tests, Dummy variable and Regressions advised that overwhelming majority of positive returns in the stock market - over the last century occur when the U.S. Congress is in recess. They also cited that the relationship between stock market performance depends either U.S. Congress is in session or not.

2.2 Studies in Asia market

Mustafa (2011), using the Karachi Stock Market as benchmark argue the effect of Islamic months in Karachi. Using a daily data from December 1991 to December 2010 and dummy variable methodology, he agreed with Ramadan effect in Karachi's stock market. In other hand, Bepari and Mollik (2009) used series of data from Bangladesh Dhaka Stock Exchange represent all Share Price Index for the period from 1993 to 2006, they found the existence of 'April effect' instead 'January effect'. In response to that, they also added that a non-weak form efficient market means that investors may gain above average return.

There are several studies were performed in relates to calendar anomalies consists of Malaysia's stock market. However, there conflict findings in those studies.

Using data collected from 1976 until 1990, As, Yen and Shyy (1993) agreed with the existence of Chinese New Year effect in Hong Kong, Japan, Malaysia, Singapore, South Korea and Taiwan. However, their findings only prove the effect before the Chinese New Year, not after the festive day. Besides that, Keong, Yat and Ling (2011) using a set of data which consists of daily observations from 11 Asian stock markets, their a study is to identify the existence of month-of-the-year effect on stock returns and volatility in eleven Asian countries which are Hong Kong, India, Indonesia, Japan, Malaysia, Korea, Philippines, Singapore, Taiwan, China and Thailand. They conclude that "most of the Asian stock markets exhibit positive December effect, except Hong Kong, Japan, Korea, and China. Meanwhile, few countries do exhibit positive January, April, and May effect. Only Indonesia exhibits negative August effect."

Ali, Nassir, Hassan and Zainal Abidin (2006) verify the existence of Chinese New Year effect using dummy variables from January 1987 to December 2006. Mei, Chong and Dollery (2007), also using a dummy variable agreed with the existence of monthly patterns in Malaysia's stock market between January 2004 to December 2006, which also believed to be the period of "Asian contagion'. Study by Tahir (2008), using multiple regression and GARCH approach, agreed that stock return a week after Chinese New Year and Friday significantly higher compared with other days, but it is not volatile. Data used by in the study are from January 1998 to December 2007.

Chee, Khim and Wafa (2006) argue that existence of a daily pattern of calendar anomalies in the Malaysian stock market using Ordinary least Squares (OLS), GARCH and GARCH – M GARCH and TGARCH model. They indicated that Monday and Friday effects appear primarily throughout the pre-crisis phase but those anomalies had become trivial, implying it were due to the market volatility.

Lean and Tan (2010) suggest that the day-of-the-week effect does play a role in Bursa Malaysia, but only in MESDAQ Index. Hooi, Smytha and Wong (2006) performed a study using data from January 1, 1988 December 31, 2002; they believed that calendar effects largely disappearing from Asian markets. According to McGowan Jr and Yakob (2010), there are no significant findings on the Aidilfitri effects in Malaysia, may due to small number on Malay's investor in Malaysia's stock market. Data used in their study are sample from year 2000 to 2003, using a summary approach.

3. Data and methodology

Factors which believe to be the dependant variables in this study consist of five factors are January Effect, Day-of-the-week Effect, Aidilfitri Effect, Chinese New Year Effect and Christmas Effect. The reason these variables were chosen is due to highly believe that this effect may bring the maximum effect to share's prices in Malaysia. These effects may boost the price to achieve it highest, and even it lowest.

The data used in this study are collected from Bursa Malaysia's website besides the company's website for long back data history. Other than that, previous case study using multiple sources also used in this research for more reliable and understanding findings.

For further investigation coefficient correlation method were used to define the relationship between the variables. The hypotheses of this study are;

$H_{11:}$ The calendar anomaly that brings effect to Malaysia's stock price is Hari Raya Aidilfitri.

$H_{12:}$ The calendar anomaly that brings effect to Malaysia's stock price is Chinese New Year

H_{13}: The calendar anomaly that brings effect to Malaysia's stock price is Christmas.

H_{14}: The calendar anomaly that brings effect to Malaysia's stock price is January Effect.

H_{15}: The calendar anomaly that brings effect to Malaysia's stock price is Day-of-the-week Effect.

The model is represented by the following equation;

$$Y = 0.477 - 0.055X_1$$

3.1 Data collection

This study employed monthly closing price of daily share's price from 3rd January 2011 through to 30th December 2011, thereby yielding a total of 247 observations. KPJ Healthcare Berhad chosen to be the benchmark in this study due to it stability in the Bursa's Indices for the past few years. Event, which is the dependant variable used in this study are;

1-Jan	:	New Year's Day
3-Feb	:	Chinese Lunar New Year's Day
4-Feb	:	Second day of Chinese Lunar New Year
31-Aug	:	Hari Raya Puasa Day 1
1-Sep	:	Hari Raya Puasa Day 2
25-Dec	:	Christmas Day

3.2 Reliability Test

Reliability test measure the internal steadiness and constancy of the multi-item ranges. It is also can be simplified as a coefficient of reliability. It indicates the degree in which measurement across the subject in the instrument is bias. The most reliability test that commonly used is The Cronbach's Alpha, which also used in this paper. The Cronbach's Alpha measures the internal stability among the multi-scales such as the interval level capacity.

The data in this study achieved 74.3% of Cronbach's Alpha. It implies relatively high internal consistency, which also means data used are accurate and can be used in this study.

4. Findings

By examining the t-statistics the dependant variable and the independent variables, the estimated regression shows that the estimated coefficients for the variables are statistically significant at the 1%, for Christmas and 0.5% level, for Chinese New Year.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.187	.023		180.553	.000
	New Year	-.012	.197	-.004	-.060	.952
	Day Of The Week	.000	.036	.000	-.004	.996
	Chinese New Year	-.417	.198	-.134	-2.107	.036
	Aidilfitri	.133	.197	.043	.678	.498
	Christmas	.373	.198	.120	1.888	.060

a. Dependent Variable: Stock Price

Table 1

From table 1, the correlations between the variables are different, where the prices remain fixed for Day-of-the-week and small coefficient for New Year. However, Chinese New Year has a negative effect on the stock price as the estimated coefficient is negative. For both Aidilfitri and Christmas, the estimated coefficients are positive, which the prices are higher between these dates. Nevertheless, the estimated coefficients for New Year, Day of the Week, Aidilfitri are not significant statistically since all did not go beyond the p-value of 0.05 and 0.10. For better elucidation, two tailed (paired) test was performed. Both significance level of Chinese New Year and Christmas meet the significance level of 10% and 5%.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.186[a]	.035	.015	.27681

a. Predictors: (Constant), Christmas, Aidilfitri, Chinese New Year, New Year, Day Of The Week
b. Dependent Variable: StockPrice

Table 2

In table 2, the estimated coefficient correlation shows a relatively low linear correlation between the variables. More than that, only 3.5% of the variance of dependant variables is explained by the variance of the independent variables.

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.662	5	.132	1.727	.129[a]
	Residual	18.466	241	.077		
	Total	19.128	246			

a. Predictors: (Constant), Christmas, Aidilfitri, Chinese New Year, New Year, Day Of The Week
b. Dependent Variable: StockPrice

Table 3

Results are reported in Table 3 indicate that at the estimated regression is efficient for prediction since the F statistics implying that the null hypothesis that the regression coefficients are all zeros can be rejected at the 1% level of significance.

5. Conclusion

This paper has investigated the existence of a monthly effect in stock return of KPJ Healthcare Berhad as being published in Bursa Malaysia. The yearly data of KPJ's stock price used are from 3 January 2011 until 30 December 2011.

This paper has proved the existence of calendar anomalies in KPJ's stock price for Chinese New Effect, Aidilfitri Effect and Christmas Effect. However, the price changes are believed more likely due to the investors tormenting about central banks raising interest rates to restrain rising inflation. Other than that, for Aidilfitri Effect and Christmas Effect, further study should be perform since the raise of the stock market, may be due to the world's stock market begin to be stronger after the European sovereign debt crisis to Spain and Italy in August.

Conversely, there are positive returns for January. However, the findings are non-related to the January effect. This is because January effect arises due to tax-loss selling, which Malaysia has a different tax system compared to other countries. Shareholders in Malaysia are not necessary to pay any taxes on the return they gained from share trading.

The failure of this study is due to few reasons, which are Malaysia's stock market is not measured wholesome enough to make money from festive seasons. Secondly, the speculators that spread among Malaysia's investors are mostly will impact the stock price, as the market itself is still small.

Further study, must be made with other factors included, which is the world current economy situation. The best example is the fall of stock prices between Augusts to October are due to European sovereign debt crisis to Spain and Italy. Between these period, European's and America's faced a slow economic growth and their credit rating being downgraded.

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NON-PERFORMING LOAN AS ERODING FACTOR OF CAPITAL ADEQUACY: EVIDENCE FROM BANKING INDUSTRY IN BANGLADESH

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Abstract

The purpose of the research paper is to investigate the impact of Non-Performing Loan (NPL) on Capital Adequacy (CA) of bank in a developing country as Bangladesh. The study is important in the context of Bangladesh as growing non-performing loan is eroding significant portion of bank's capital as an assumed factor without empirical evidence to show the extent of the impact. The study employs a sample size of 40 consisting of the data of Capital Adequacy Ratio (CAR) against Non-Performing Loan (NPL) ratio for last 10 years (2008-2017) generated from four categories of bank. Test of hypothesis, correlation, regression analysis and trend analysis have been conducted using SPSS software. The paper provides empirical evidence that non-performing loan has significant impact on capital adequacy of bank. This study will help the policy makers to control to the desired NPL ratio for ensuring CAR prescribed by the prudential regulatory requirement of central bank. This study seems to be the first attempts to address such an issue in the context of Bangladesh.

Key Words: Non Performing Loan (NPL), Capital Adequacy Ratio (CAR).

JEL Classification: E22, E44, M15

1. Introduction

The working capital of bank consists of the deposit of the depositors (90%) and the capital provided by the directors (10%). Non-performing loan means those financial assets from which banks no longer receive interest or installment payments according to schedules. NPL constitutes the problem of economic stagnation. The minimization of NPL is an obligatory condition for improving economic growth.

In Bangladesh, NPL is a major worsening factor for the performance of banks. The issue of NPL has become one of the major problems for more than a decade in the banking sector of Bangladesh. Banks having capital adequacy ratio less than the regulatory minimum requirement are compelled to adjust their balance sheet to comply with the regulatory requirements either by raising more capital by holding assets constant or reducing risk-weighted assets while capital constant(Fries et al. 2001). These adjustments make a beneficial impact on the bank performance and soundness. According to research by Dickson and Marobhe (2012), capital adequacy has a great influence on the

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asset quality where increase in capital ratios sometimes reduced the levels of non-performing loans and increase in non-performing asset was accompanied by an increase in capital ratios (Dickson and Marobhe, 2012).

Existing literatures mostly show the impact of NPL on profitability. Research evidence has been rarely found that has taken into consideration the impact of NPL on capital adequacy in the context of Bangladesh.

To meet up the gaps of existing literatures, the objective of the research paper is to investigate the impact of non-performing loan on the capital adequacy in the banking sector of Bangladesh from the empirical evidence. Besides, some problems have been identified that can be resulted from the impact. At the end of the paper some measures have been recommended to get rid of the problem of NPL.

The paper consists of following four sections. Review of previous literatures has been shown in section 2 which is followed by the research methodology in section 3. Section 4 describes the statistical results and discussions. Finally, section 5 concludes the paper with key findings and recommendations.

2. Review of Literature

Commercial banks expose themselves to the risks of default borrowers due to the nature of their business (Waweru & Kalami, 2009). The loss of loan is a total loss of time, money and effort by a loop of Capital formation-Investment-Recovery (Chowdhury et al. 2002). Hou (2007) argued that NPLs hamper economic growth and reduce the economic efficiency (as cited by Dhar & Bakshi, 2015). Lata (2015) studied that non-performing loan of state owned commercial banks are very high where they hold more than 50 percent of total NPLs of the industry in Bangladesh from FY 2006 to FY 2013. Adhikari (2007) argued that the lack of effective monitoring and supervision of the banks, lack of effective lenders', weakness of legal infrastructure and lack of effective debt recovery strategies are the usual causes of NPLs. Poor enforcement of laws for settlement of NPLs and insufficient debt recovery measurements have also aggravated the financial malaise (Cited as Lata, 2015). Banks that charge relatively higher interest rates and lend excessively are likely to be incurred higher levels of non-performing loans (Khemraj et al., 2009). Banks' lending behavior can restrict economic activity, especially in periods of stress when non-performing loans are high (Tracery, 2011; Sinkery & Greenwalt, 1991).

3. Research Methodology

3.1 Sample Size

The initial sample size of this study is 40 consisting of NPL ratio and CAR data of last 10 years generated from four categories of banks namely- State-owned Commercial Bank (SCB), Specialized Bank (SB), Private Commercial Bank (PCB) and Foreign Commercial Bank (FCB).

3.2 Sources of Data

The research paper is based on secondary data only collected from annual reports 2008 to 2017 of Bangladesh Bank. Summary of data has drawn on appendix table-4.

3.3 Data and Description of the Variables

The dependent variable is Capital Adequacy Ratio which is termed as CAR and the independent variable is Non-Performing Loan which is termed as NPL.

3.4 Linear Regression Model

Linear regression model has been developed using SPSS software. The standardized regression model is:

$$CAR= \alpha_0 + \beta_1 NPL .... \text{(i)}$$

Where, CAR is the dependent variable which is to be estimated against NPL, α_0= intercept which represents the estimated value of CAR when NPL is zero, β_1= average change in CAR for each percent change in NPL, and NPL is the independent variable that is fixed in advance.

3.5 Test of Hypothesis

In this study, following hypothesis have been developed:
H_0: The coefficient of determination in the population is zero.
H_1: The coefficient of determination in the population is not zero.

4. Statistical Results and Discussions

Findings of the study have been categorically discussed in the following subsections:

4.1 Results on Regression Analysis

Based on the equation (i) the fitted regression model is:

$$CAR= 22.456 + (-0.719)\ NPL .... \text{(ii)}$$

According to the table-2 of appendix, the correlation between CAR and NPL has been found negative. According to the above model (ii), if NPL increases by 1 percent then CAR will decrease by 0.719 percent. The value of coefficient of determination, R^2 is 0.517 or 51.70% which indicates that around 52% of variation in the dependent variable (CAR) can be explained by the independent variable (NPL) in the above mentioned regression model. According to the table-1 of appendix, the value of adjusted R^2 is 0.504 or 50.40% which suggests that addition of other independent variable may make more contribution to explain the variation in the dependent variable.

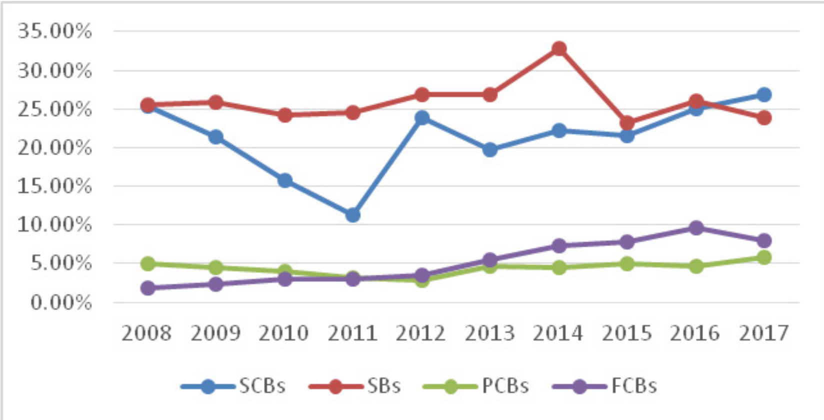
From the above mentioned regression model, it has been evidenced that forecasted controlled average NPL ratio is 17.32% and 13.85% to maintain 10% and 12.50% CAR respectively according to BASEL II and BASEL III regulatory requirement. NPL ratio of both PCBs and FCBs are below the average with 5.80% and 7.90% respectively as of 2017. However, the NPL of SCBs and SBs were 26.80% and 23.80% respectively in 2017.

4.2 Results of Test of Hypothesis

It has been found from appendix table 3, the statistical output that the p value is 0.000 which is less than 0.05. Hence, the null hypothesis is rejected. As a result, there is significant negative relationship between the independent variable named Non Performing Loan (NPL) and dependent variable named Capital Adequacy Ratio (CAR).

4.3 Trend Analysis

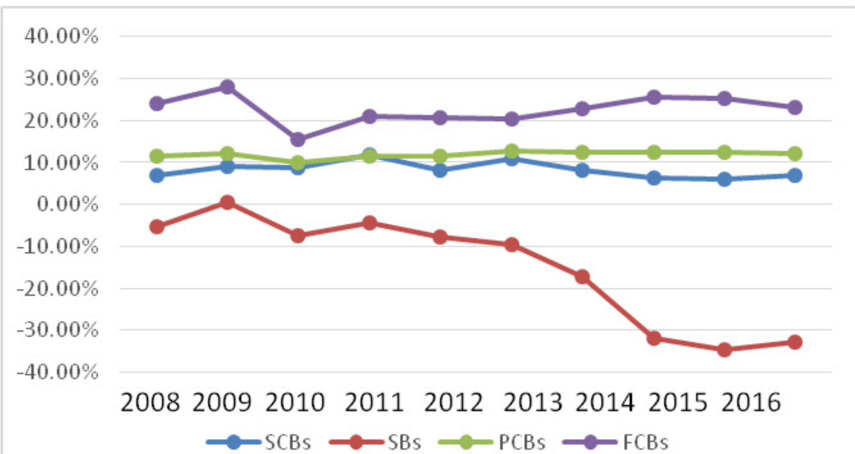
Figure 01: Trend Analysis of NPL of Last Ten Years (2008-17) in Four Categories of Banks



Data Source: Developed by Authors from Annual Report 2008-2017, Bangladesh Bank

Above figure provides information about NPL ratio of recent 10 years for four categories of bank namely SCB, SB, PCB and FCB where the SCBs has gradually increasing NPL compared to other categories of bank. NPL is higher in both SCBs and SBs bearing above 20% in last half of the decade. Besides SBs experienced the worst condition with above 25% NPL in most of the years compared to other categories of bank. The NPL of both PCBs and FCBs is also increasing gradually in recent years but it is below 10% showing better condition comparatively.

Figure 02: Trend Analysis of CAR of Last Ten Years (2008-17) in Four Categories of Banks



Data Source: Developed by Authors from Annual Report 2015-2016, Bangladesh Bank

Above graph denotes that SBs have capital adequacy ratio with negative figure among most of the years of recent 10 years which is leading to reverse of required capital as a result of increased level of NPL and other reasons. Besides, SCBs are also having downward capital adequacy ratio in trend following upward movement of NPL ratio. In both of the cases, capital adequacy ratio is below the regulatory requirement of 10% according to BASEL II. It is also clear that PCBs and FCBs maintain adequate capital against the regulatory requirements of BASEL II. Noticeably, FCBs have stronger capital adequacy ratio which is almost double of minimum regulatory requirement of CAR according to both BASEL II and BASEL III.

5. Conclusions and Recommendations

It has been evidenced from the study that NPL ratio has statistically significant negative impact on CAR. However, NPL ratio covers only 52% variations in CAR but as a single variable it seems a significant determine of level of CAR. This higher degree of influence can result lower profitability, lower deposit, interest rate, liquidity crisis, higher lending interest rate and bad corporate governance. Hence, banks need to control the NPL ratio with proper credit assessment and recovery measures mainly in state owned commercial banks and specialized banks as capital shortage problem is acute in these two categories of bank. However, controlling NPL ratio for both these categories of banks is urgent need as the trend analysis also shows that NPL ratio and CAR of both these categories of bank are deteriorating rapidly compared to other two categories of bank. It will be more difficult for the banks to maintain required levels of CAR when it will become 12.50% from 10% through full implementation of BASEL III replacing BASEL II in whole banking sector. Hence, banks need to be well prepared to face the challenge in this regard focusing on controlling NPL ratio immediately.

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APPENDIX

Table -01

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.719[a]	.517	.504	10.83346	.517	40.681	1	38	.000	.455
a. Predictors: (Constant), NPL										
b. Dependent Variable: CAR										

Table -02

Coefficients[a]													
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	22.456	2.973		7.553	.000	16.437	28.475					
	NPL	-1.091	.171	-.719	-6.378	.000	-1.437	-.745	-.719	-.719	-.719	1.000	1.000
a. Dependent Variable: CAR													

Table -03

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4774.531	1	4774.531	40.681	.000[b]
	Residual	4459.828	38	117.364		
	Total	9234.359	39			
a. Dependent Variable: CAR						
b. Predictors: (Constant), NPL						

Table -04

Year	NPL (%)				CAR (%)			
	SCBs	SBs	PCBs	FCBs	SCBs	SBs	PCBs	FCBs
2008	25.4	25.5	5.0	1.9	6.9	-5.3	11.4	24
2009	21.4	25.9	4.4	2.3	9	0.4	12.1	28.1
2010	15.7	24.2	3.9	3.0	8.9	-7.3	10.1	15.6
2011	11.3	24.6	3.2	3.0	11.7	-4.5	11.5	21
2012	23.9	26.8	2.9	3.5	8.1	-7.8	11.4	20.6
2013	19.8	26.8	4.6	5.5	10.8	-9.7	12.6	20.3
2014	22.2	32.8	4.5	7.3	8.3	-17.3	12.5	22.7
2015	21.5	23.2	4.9	7.8	6.4	-32	12.4	25.6
2016	25.1	26.0	4.6	9.6	5.9	-33.7	12.4	25.4
2017	26.8	23.8	5.8	7.9	7	-32.8	12.2	23.3

Source: Banking Regulation and Policy Department, Bangladesh Bank.

THE INFLUENCING FACTORS ON THE LEVEL OF ACCRUAL ACCOUNTING ADOPTION: A CONCEPTUAL APPROACH

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Siti Zabedah Saidin*

Abstract
Beginning from the assumption that accrual accounting is useful in ensuring the high performance of management systems, this study attempts to determine to what extent municipalities comply with new accounting standards in Indonesia with a focus on municipalities in the provinces of Sumatera and Java. Drawing from institutional theory, this study has two objectives: (i) to investigate to what extent municipalities comply with the accounting standards stipulated in PP No. 71 of 2010, (ii) to examine the relationship between explanatory factors such as, training programs, information technology, and internal communication, and the level of accrual accounting adoption in Indonesia's municipalities. Therefore, this study contributes to identifying input into the adoption of Government Regulation No. 71 of 2010 in order to apply accrual accounting to the fullest and to minimize errors in financial reporting with the analysis of possible obstacles faced in implementing accrual accounting.

Keywords: Accrual Accounting, Compliance, Government Regulation, Explanatory Factors.

JEL Classification: I28, M15, M48.

1. Introduction

Financial management reform in Indonesia had been running for more than a decade since the enactment of Law No. 17 of 2003 on State Finance and Law No. 1 of 2004 on the State Treasury. By implementing this reform, the financial management of the government was meant to be able to be executed in an orderly, efficient, economical, effective, transparent and accountable manner, abiding by laws and regulations as stated in Article 3 Para (1), Law No. 17 of 2003. The Law mentioned that the adoption of an accrual accounting system should cover a period of five years starting from 2003 until 2008.

Furthermore, the Indonesian government issued a regulation or "Peraturan Pemerintah" (PP) No. 24 of 2005 concerning Government Accounting Standards or" Standar Akuntansi Pemerintah" (SAP) as the basis for the migration of the government's accounting system from a cash basis towards an accrual basis. This regulation provided a transition period for the application of accrual accounting based on the SAP of not more

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than four years before the budgeting process of 2010. This meant that the transition period was from 2005 until 2009.

Furthermore, in 2010 the government published PP No. 71 mandating the SAP as the basis for accrual accounting to improve the quality of government performance accountability to replace PP No. 24 of 2005. This regulation also included a Statement of Government Accounting Standards or "Pernyataan Standar Akuntansi Pemerintah" (PSAP) which stated that these standards and accrual accounting methods should be used for the budget process of fiscal year 2010. However, those reporting entities that had not been able to apply the accrual-based PSAP were allowed to migrate from a cash-based system towards accrual-based PSAP at least four years after 2010. Thus, the government accounting system had to fully adopt accrual accounting by 2015.

In the international literature, it is claimed that the use of accrual accounting has many advantages [(Funnel & Cooper, 1998; IFAC, 2002)]. However, some literature also criticizes the theoretical grounds [Christiaens, (1999)] and the practical considerations [Carlin & Guthrie, (2003); Hodges & Mellett, (2010)] related to the adoption of accrual accounting in public organizations.

The adoption of accrual accounting in the public sector is often accompanied by various weaknesses and problems. The problems during the transition process are associated with organizational and procedural factors [Cohen Kaimenakis & Zorgios, (2007)]. These include the lack of trained human resources, motivation and incentives, information technology capabilities, professional accounting or audit professionals, and political support [Arnaboldi & Lapsley, (2003); Carlin & Guthrie, (2003); Cohen, Keimenakis & Venieris, (2012); Irvine, (2011)].

In Indonesia, there are few empirical studies on the adoption of accrual accounting. For example, [Marwata & Alam (2006)] investigated how various drivers of reform with different interests and preferences compete and cooperate in the process of the reform of government accounting policies. They found that the accounting reform process was marked by both rivalries and alliances between the drivers of reform. Harun (2008) provided an overview of public sector reform in Indonesia. He focused on the barriers, improvements, and actions taken by Indonesia to move to accrual accounting. Harun and Kamase (2012) described the institutional capacity of provincial governments and the adoption problems in accrual accounting. Harun, VanPaursem and Eggleton (2012) evaluated the institutionalization of the accrual accounting system in Indonesian local governments using case studies to gain insights in relation to the process of institutionalization in the public sector. McLoed and Harun (2014) described and analyzed the challenges faced in trying to reform public sector accounting in Indonesia. Additionally, previous research has been done in the public sector to look at the process of adopting accrual accounting. Simanjuntak (2010) and Bastian (2006) suggested that the adoption of accrual accounting in Indonesia requires adequate information technology, and human resources.

In particular, this paper focuses on a conceptual model which will form the basis of an upcoming study in exploring the level of accrual accounting adoption with a focus on Indonesian municipalities. There are two objectives for this study, namely: (i) to investigate to what extent municipalities comply with the new accounting standards stipulated in PP No. 71 of 2010, (ii) to examine the relationship between explanatory factors such as training programs, information technology, and internal communication and the level of accrual accounting adoption in Indonesia's municipalities.

2. Theoretical Perspective

The theoretical perspective of this study is based on institutional theory. Based on the new institutional theory, one of the factors that might affect the success of the organization is its capacity to achieve and maintain legitimacy in its environment. DiMaggio and Powell (1983) identified the three mechanisms in which institutional isomorphic changes occurred: coercive isomorphism, mimetic isomorphism, and normative isomorphism. In developed and developing countries, this institutional theory has been used in some studies of public sector accounting reforms. For example, Lapsley and Pallot (2000) examined the effect of the accrual regime applied in the United Kingdom, New Zealand, and Canada [Baker & Rennie, (2006)]. In the Netherlands, [Ter Bogt & Jan van Helden (2000)] investigated the effect of public sector accounting in local government on the actions of politicians and managers. In the context of developing countries, [Nor-Aziah and Scapens (2007)] also examined the implementation process of the private sector accounting technology adopted by government organizations in Malaysia using institutional theory.

However, this study will use institutional theory to investigate the influence of factors (training of accounting staff, information technology, and internal communication) on the compliance level of accrual accounting in reference to previous studies [Christiaens, (1999); Christiaen & Peteghem, (2007); Eriotis et al., (2011); Harun, (2008); Marwata & Alam, (2006); Stamatiadis, (2009); Windels & Christiaens, (2006)]. Institutional theory provides a reasonable explanation of the relationship between these factors and the level of accrual accounting adoption. Therefore, this study will use institutional theory as an appropriate approach.

3. Hypothesis Development And Conceptual Schema

Hypothesis development for this study is based on the factors that allegedly possess an influence on the level of accrual accounting adoption in Indonesia municipalities; this is formulated as follows:

3.1 Training Programs

Currently, Indonesia municipalities continue to improve accountability for public financial management in accordance with principles of good governance. Empirical research has found that adequate training programs have a positive and significant effect on the compliance level of accrual accounting [Christiaens & Peteghem, (2007); Christiaens, (1999); Eriotis, Stamatiadis, & Vasiliou, (2011); Windels & Christiaens, (2006)]. Based on the above discussion, this study would like to re-examine the relationship between the two variables and propose the following hypothesis:

H_1: There is a positive relationship between adequate training program and the level of accrual accounting adoption.

3.2 Quality of Information Technology

Previous research revealed the importance of IT support in the creation of a new accounting system [Bloomfield & Danieli, (1995); Järvinen, (2006)]. As local authorities are not usually familiar with the accounting applications, the application of additional IT support is assumed to be important in the new system. In line with this, studies by Eriotis *et al.* (2011) show a positive and significant correlation between the quality of information technology and the compliance rate of accrual accounting. Thus, high quality information systems that exist in organizations should be considered as an essential requisite for the successful adoption of NPM initiatives [Ouda, (2008)]. This argument leads to the propose the following hypothesis:

H_2: There is a positive relationship between the quality of information technology and the level of accrual accounting adoption.

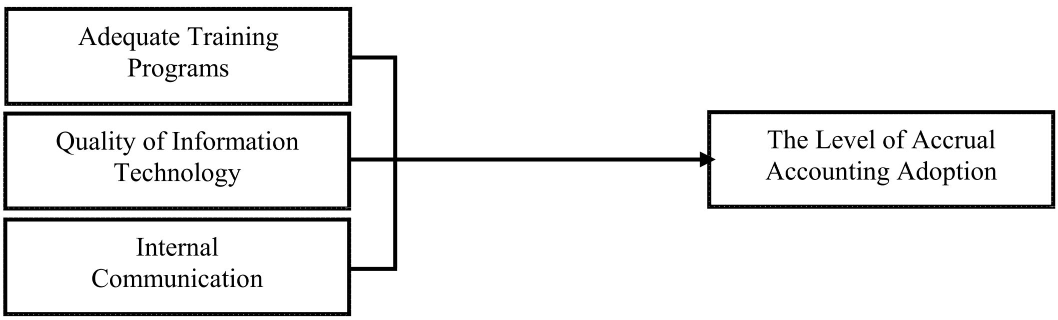
3.3 Internal Communication

According to research by Holland *et al.* (1999), it was found that communication is a critical success factor in the adoption of any new system. Hence, [Shanks, Parr, Hu, Corbitt, Thanasankit, and Seddon (2000)] found that there is increasing likelihood of failure of implementing the new system when it is not communicated effectively to stakeholders. Based on the above discussion, this study lead to the following hypothesis:

H_3: There is a relationship between internal communication and the level of accrual accounting adoption.

Conceptual Schema

Figure 1: Conceptual schema underlying the testable hypotheses



4. Proposed Method

It is recommended that future empirical studies could be conducted quantitatively with primary data. This study attempts to get the opinion by head of accounting sections in Indonesia municipalities who are involved in preparing financial statement of local governments. It is further suggested that future empirical studies should target a sample of Java and Sumatera municipalities due to the wide land area coverage of the country, the major big island in Indonesia.

Table no. 1: List of Java and Sumatera Municipalities

Geo-Political Zone	Number of Municipalities
Jawa	119
Sumatera	154
Total	**273**

Source: *Manistry of Internal Affairs*, (2016).

5. Conclusion

This conceptual paper investigates questions related to identifying the level of accrual accounting adoption in Indonesian municipalities by using a compliance index. This is important because Indonesia has recently undergone major government financial reforms and is seeking to greatly enforce financial accounting transparency [Rosser, (2009)]. The level of compliance in this thesis is measured using a 43-item index derived from the key Indonesian Government Accounting Standards (PP No.71 of 2010) to explore in greater depth the relationship between the level of accrual accounting (as measured by the compliance index) and key predictor variables both outside and inside government institutions. This study finding are expected to make a significant contribution to improve transparency and accountability of the government by exploring the impact of various explanatory factors on the level of accrual accounting adoption, particularly for the Indonesian municipalities. It is hoped that the objective of this study will be achieved in order to contribute to the functioning of accrual accounting in particular and to the whole government financial management system in general. The government has to ensure a satisfactory level of readiness among its staff for better results. It must also find the right way to overcome the obstacles of accrual accounting adoption found in this study to ensure an optimal reform process. Overall, the results of this conceptual paper should also produce important insights for municipalities in Indonesia and support the call for continued research in this exciting and unexplored area.

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ROMANIA'S TRANSITION FOR SUSTAINABLE DEVELOPMENT

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Emilia Gabroveanu*

Abstract

The paper aims to analyze the progress made by Romania during the period after the European Union accession through the evolution of the main indicators of sustainable development and in comparison with the average of the EU member states. The indicators focuses on several primordial sub-domains: economic development, sustainable consumption and production, public health, demographic issues, natural resources and sustainable tourism, climate change and energy, sustainable transport, etc.

Key words: sustainable development, sustainable tourism

JEL Classification: O10; Q01

Introduction

Sustainable development is perceived as a new type of economic growth, radically opposed to the current type, which dominated the nineteenth and twentieth centuries` economy, circumscribed to the "*use of planet`s natural resources, of conventional and unconventional forms of energy, while protecting and preserving the environment*"[1].

Thus, sustainability as concept has appeared in conjunction to renewable resources and was embraced by ecological movement. The concept allude to the existance of ecological conditions needed to support human life at a certain level of well-being also for future generations, and this is ecological sustainability not sustainable development, in S.M. Lele[2] opinion.

All theorists believe that the starting point in formulating the concept of sustainable development is the World Commission on Environment and Development Report of ONU, known as the Brundtland Report, where arises the idea that "*umanity has the capacity to achieve sustainable development - to ensure that current necessities are met without compromising the ability of future generations to meet their own needs*".

It is widely acknowledged that *sustainable development is a multidimensional concept*. Apart from the economic aspect, equally important are *social, political, cultural,*

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[1] Câmpean, V. (2009), *Dezvoltarea durabilă si managementul mediului*, Bucureşti, Editura Pro Universitaria, p. 5.

[2] Lele, Sharachchandra M., *Sustainable development: A critical review*, *World Development* 19 (6): 607-621, 1991.http://public.wsu.edu/~susdev/Lele91.html

environmental, scientific, human, etc. At the same time, and unanimously, it is acknowledged that *development necessarily integrates growth and economic progress*[3].

The concept of sustainable development comes together with a new set of values that will underpin the future model of economic and social progress, values that focus on individual and his current and future necessities to ensure a better quality of life for all inhabitants of the planet, the natural environment - protecting and preserving it, as well as diminishing the current deterioration of ecosystems.

According to M. Tocan and S.G. Duduman "sustainable development is a continuous integration process of ecological, economic, equity and ethical considerations for current and future generations of humans and other living beings without jeopardizing the systems which sustain the life of the planet, of which, ultimately, all life depends"[4].

Comparative analysis of sustainable development indicators in Romania from the accession to the European Union

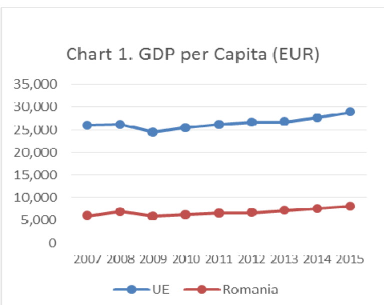
The monitoring of trends and progress in implementing sustainable development is measured based on several sets of indicators.

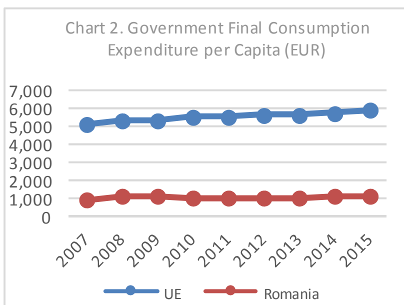
More than 130 indicators were introduced into the structure proposed by Eurostat, of which ten were identified as headline indicators. They are intended to provide an overview of the European Union and to monitor progress towards sustainable development in terms of objectives and targets defined in the strategy.

Socio-economic development. This headline indicator is pursued by several indicators that measure the country's economic and social performance; the most relevant for analysis in this paper are: Gross Domestic Product per Capita and Government Final Consumption Expenditure per Capita.

At domestic level, the socio-economic dynamics reflected through macroeconomic indicators highlights a clear discrepancy between the evolution of GDP and the index of human development. In the last 15 years, the national GDP has increased by 4 times, GDP per capita by 2.3 times, and the human development index has increased only by 12.2%.

The analysis starts with 2007, the year of Romania's accession to the European Union.





Source: Eurostat, 2016, http://ec.europa.eu/eurostat/web/sdi/indicators/socioeconomic-development

[3] Pohoață, I. (2012), *Strategii şi politici europene de dezvoltare durabilă*, Centrul de Studii Europene, Universitatea AI Cuza, Iaşi, p. 4.

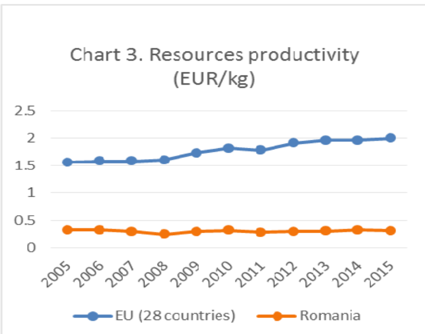
[4] Mădălina Tocan, Ştefan-Gabriel Duduman, *Sustainable development- strategic goal of the knowledge based economy,* IDEAS Working Paper Series from RePEc, 2010.

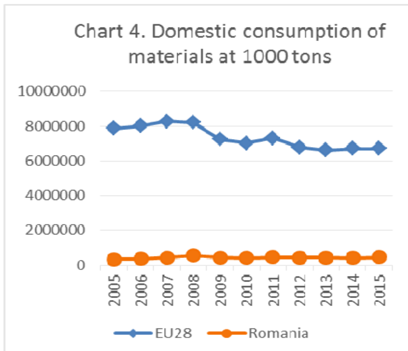
Analyzing the evolution of real GDP per capita, is noticed a rasing trend from 6000 euros in 2007 up to 8100 in 2015, with a small fall in 2009, which shows 35% increase in GDP per capita from Romania`s accession to the Union.

The second graph analyzes the evolution of Government Final Consumption Expenditure per Capita in Romania vs the EU, these being somewhat constant at 1100 euros almost the whole period, with the average of the Union growing by 18%.

Consumption and sustainable production. The EU's Sustainable Development Strategy also sets out the objective of promoting sustainable consumption and production patterns. Addressing social and economic development within the supporting capability of ecosystems and segregating economic growth from environmental degradation is an essential requirement for sustainable development. Unfortunately, recent developments at international level seem to deny the optimism of the past few years.

The positive trends observed in sustainable production and consumption have favorably developed on the long term. Since 2002, considerable improvement has been observed in resource productivity. This long-term efficiency gain was registered due to the fact that GDP has grown faster than domestic consumption of materials (DCM), especially before the economic crisis. Since 2008, the use of EU resources has fallen sharply, putting DCM below levels noticed a decade ago.





Source: Eurostat, 2016, http://ec.europa.eu/eurostat/web/sdi/indicators/sustainable-consumption-and-production

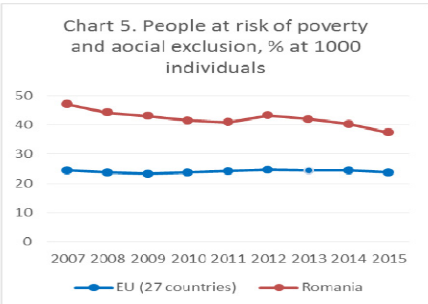
Can be see the reduced productivity of resources used in Romania compared to the average of the countries of the Union, where is approximately five times higher. Unfortunately, over the entire analized period, before accession, until today, it has failed to grow, the chart being almost a straight line.

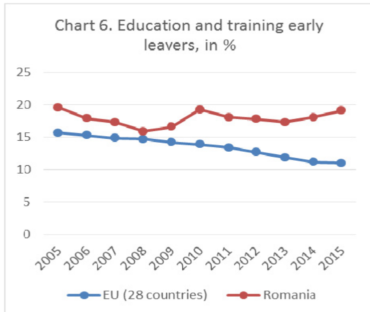
The Domestic Consumption of Material (DCM) indicator is defined as the total quantity of materials directly used in an economy, DCM is equal to materials made domestically (MMD) minus exports. These had a slightly increasing trend from 2005 to 2015, compared to the average of the countries in the Union in which has registered a decline in the use of domestic manufactured materials.

Social Inclusion. The Sustainable Development Strategy sets out the objective of creating a society favorbale to social inclusion by taking into account intergenerational solidarity and ensuring improvement in citizens' quality of life as a prerequisite lasting welfare.

Trends observed in social inclusion are mixed: progress in subtopics such as "poverty and living conditions" and "access to the labor market" are missing, the evolution of education indicators is positive.

The number of people at risk of poverty has fallen steadily between 2005 and 2009, but has risen again with the economic crisis [5]. In 2012, the number of people at risk of poverty or social exclusion in the EU-28 peaked at more than 124 million before dropping again by more than one million in 2013. In Romania, the number of people at risk poverty and social exclusion decreased after joining the Union, from 47 ‰ in 2007 to 37.4 ‰ in 2015 (see Chart 5). Income disparity has hardly changed between 2008 and 2013. In 2013, the richest 20% of the population earned about five times more than the poorest 20% of the population.



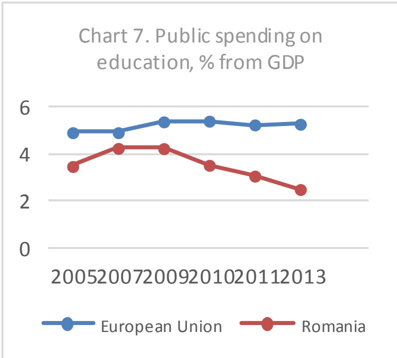


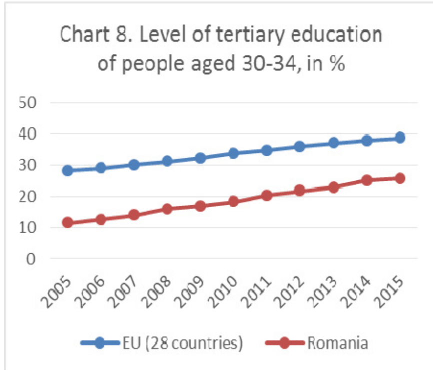
Source: Eurostat, http://ec.europa.eu/eurostat/web/sdi/indicators/social-inclusion

The share of early leavers from education and training has decreased steadily since 2003, reaching 11.1% in 2015 in EU member countries, while in Romania there have been fluctuations between these years but the starting point in 2005 is the same with the end of 2015, ie 19.1%, the lowest percentage being registered in 2008 of 15.9% (see Chart 6).

Public spending on education was well below the average of EU Member States, closeness being in the maximum point for Romania of 4.25% of GDP in 2007, since then this important area of sustainable development being treated with fewer funds, in 2013 reaching an embarrassing minimum of 2.5% of GDP, while the Union average revolves around 5% (see Chart 7).

[5] Sorlescu M., Gabroveanu E., *Analiza indicatorilor de dezvoltare durabilă ai României,* in vol. *Experiențe și provocări pentru România și Republica Moldova în contextul proceselor de integrare europeană*, în cadrul proiectului Responsabilitatea socială a guvernanței publice – componentă majoră a relațiilor dintre România și Moldova, UEFISCDI.





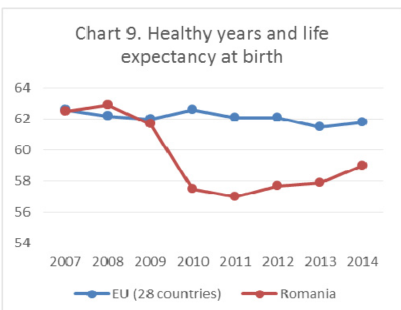
Source: Eurostat, http://ec.europa.eu/eurostat/web/sdi/indicators/social-inclusion

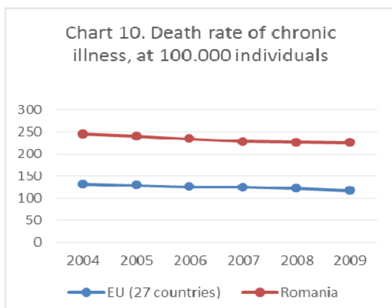
Moreover, the share of the population of the age of 30 and 34 with tertiary education has been increasing steadily since 2005 in the EU, reaching 38.7% in 2015, the trend being approximately the same in Romania, but in 2005 was only 11.5% and rose to 25.6% in 2015 (see Chart 8). Participation in lifelong learning has increased steadily in the Union and reached 10.7% of people aged 25-64 years in 2015, while in Romania the level is only of 1.5%[6].

Public health. Trends observed in the European Union and implicitly in Romania in public health generally show a mixed picture.

There is an improvement in life expectancy for both sexes, but the changes are minor throughout the period from 2004 until today (see graph 9). In Romania, in 2007-2008, the figures were identical to the European average, but they worsened in the following period, from 2012 the evolution is positive and in 2014 it is only at a difference of 2.8 times the EU average.

Health inequalities between social groups persist, but figures suggest that disproportionate health problems in different groups decreased between 2004 and 2015.



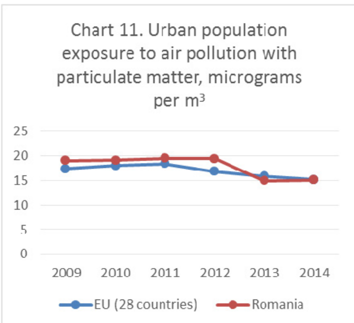


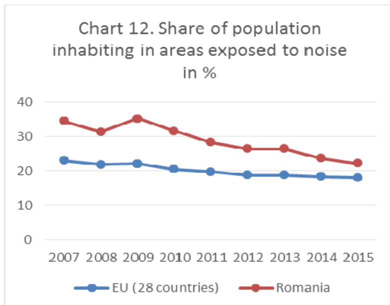
Source: Eurostat, http://ec.europa.eu/eurostat/web/sdi/indicators/public-health

[6] Source: Eurostat, http://ec.europa.eu/eurostat/web/sdi/indicators/social-inclusion

Of every 100,000 people in the EU, 129.9 died of chronic illness before the age of 65, in 2012, this decreasing by 21.0% compared to 2002[7]. Such premature deaths due to chronic illnesses vary widely throughout the EU, especially for men. For this indicator Romania has the highest number of deaths, only Hungary has more than 200 of all Member States. Progress has been registered with Romania`s entry into the EU, these figures decreasing slightly from 247 individuals in 2004 to 225 in 2010 (see Chart 10).

A report issued by European Commission on health inequalities in the EU shows that any indicator of socio-economic status is considered - education, income or material shortcomings - reporting problems of poor general health and long-term health problems tend to be less frequent for individuals from most advantaged group and increasingly present in the ones disadvantaged.[8] Of these, the strongest association is between material and health deprivation, and between education and health. For example, although women are more likely to report, being in a worse health than men, when we discuss about education, at reporting rates, they are decreasing. This suggests that socio-economic disadvantages faced by women are also largely due to differences in general health between men and women.





Source: Eurostat, http://ec.europa.eu/eurostat/web/sdi/indicators/public-health

Analyzing the statistics, it appears that in EU there was an increase in air pollution with very fine particulate matter (PM2.5) - the most dangerous for human health - from 14.3 micrograms per cubic meter in 2000 to 16.9 in 2012. Romania recorded values very little over the Union average in the period immediately following the accession but in 2014 recorded the same parameter (see Chart 11). Despite the increase in PM2.5, total exposure to air pollution by particulate matter (PM10) decreased by 3.6 micrograms per cubic meter over the same period, with PM10 concentrations reaching 24.9 micrograms per cubic meter in 2012.

The global urban exposure to air pollution by ozone increased by 550 micrograms per cubic meter between 2000 and 2012, reaching 3502 micrograms per cubic meter in

[7] http://ec.europa.eu/eurostat/statistics-explained/index.php/Sustainable_development_-_public_health
[8] European Commission, *Health inequalities in the EU — Final report of a consortium*, December 2013. http://ec.europa.eu/health//sites/health/files/social_determinants/docs/healthinequalitiesineu_2013_en.pdf

2012[9]. However, the trend was volatile due to the influence of weather on ozone levels. There has been a decrease in the share of population inhabiting in areas exposed to noise, from 21.9% in 2008 to 19% in 2013 in the EU, the trend being the same in Romania, but on higher figures from 34.4% in 2007 to 22.2% in 2015 (see Chart 12).

Conclusions

Sustainable development imposes a new set of values that underlie the future model of economic and social progress; values that primarily targets the individual and his present and future necessities to ensure a better quality of life for all inhabitants of the planet, in a protected and preserved natural environment.

Implementing European legislation, Romania has also started the process of monitoring the indicators that measure sustainable development progress, so we can trace and analyze registered progress. The above analysis of the indicators compared to those registered in the European Union helps us to conclude:

- Romania's GDP has increased by 35% since its accession to the European Union, but it is well below its average, which makes impossible to compare the living standards, the level of public spending on education, health, infrastructure, environmental protection, etc.;
- At domestic level, the socio-economic dynamics reflected through macroeconomic indicators infer a clear discrepancy between GDP evolution and human development index. In the last 15 years, the domestic GDP has increased 4 times, GDP per capita by 2.3 times, and the human development index has increased only by 12.2%;
- In Romania, the number of people at risk of poverty and social exclusion decreased after joining the Union, from 47 ‰ in 2007 to 37.4 ‰ in 2015;
- The percentage of early leavers from education and training has decreased steadily since 2003, reaching 11.1% in 2015 in EU member countries, while in Romania there have been fluctuations between these years but the starting point in 2005 is the same with the end of 2015, i.e. 19.1%, the lowest percentage being in 2008 of 15.9%;
- improving life expectancy for both sexes in Romania at a difference of 2.8 years compared to the EU average;
- The global urban exposure to air pollution by ozone increased between 2000 and 2014 and there was a decrease in the share of the population living in areas exposed to noise, from 34.4% in 2007 in Romania to 22.2% in 2015.

Although Romania faces many problems that need to be addressed on short term, most of them related to the socio-economic area, their solving must not ignore the needs of future generations and environment protection. We can not endlessly exploit the natural, economic and human resources without regenerating them and rationalizing their use, their efficient management being inevitable.

[9] Eurostat,http://ec.europa.eu/eurostat/statistics-explained/index.php/Sustainable_development_-_public_health

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ECONOMIC GROWTH IN BANGLADESH: IMPACT OF FISCAL POLICY AND MONETARY POLICY

Mohammad Saiful Islam
Marina Akter
Md. Sajadul Islam Sarker*

Abstract: *The purpose of this research paper is to identify the impact of significant components of fiscal policy and monetary policythat determine the level of economic growth in Bangladesh. Correlation, regression, test of hypothesis, ANOVA and trend analysis have been conducted in this paper using SPSS software to analyze data. Both the primary and secondary data have been used in this paper. Data have been generated from economic reviews, journals, expert opinions etc. The results of this analysis evidence that investment of current year, net foreign finance, tax burden/tax revenue and trade balance are significantly influencing the economic growth in Bangladesh among several components of fiscal policy where tax revenue has been found as most significant determinant of economic growth. Besides, it has been found that several tools of monetary policy are significantly influencing economic growth where most significant determinants are low variable reserve ratio, flexibility in rationing of credit and fixation of less margin requirement.*

Keywords: Fiscal Policy, Monetary Policy, Budget Deficit, GDP, Economic Growth.

JEL Classification: E52, E62, O23.

1.0 Introduction: Economic indicators of Bangladesh seem favorable in some cases such as, GDP growth rate above 7 percent, better crop production, consistent decline in inflation, satisfactory remittance inflow, comfortable balance of payment, stable exchange rate and ample foreign exchange reserve (CPD, 2016). But, economy of Bangladesh is facing acute problems in some economic indicators such as higher non-performing loans (NPLs), sluggish private investment, shortfall of fiscal targets for both income and expenditure, fiscal pressure on government due to capital deficit of state owned commercial banks (SCBs), missed export target, volatility in net foreign aid and widening trade deficit (CPD, 2016).

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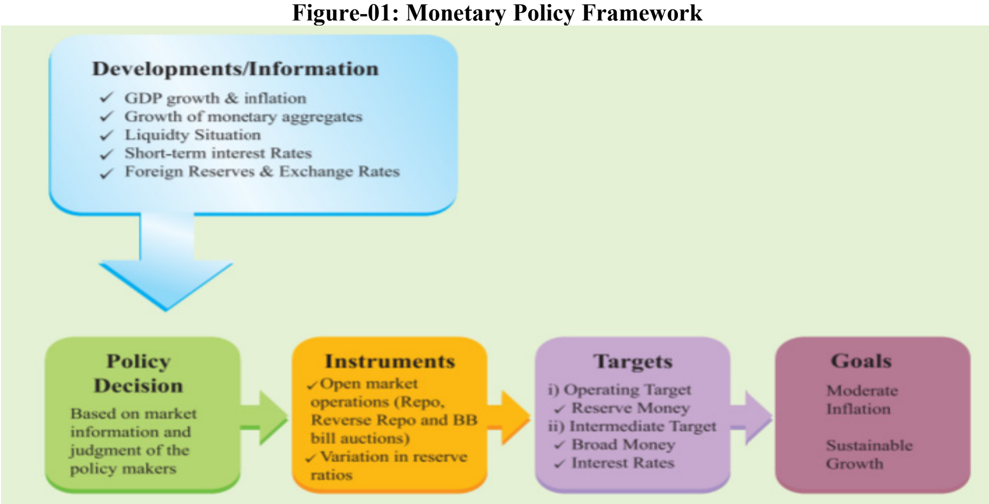
Fiscal policy is the combination of some economic indicators that play vital role for economic growth in a country. It is issued and implemented by the government.

Fiscal policy is based on the value added tax(VAT) and tax revenue to allocate and conduct expenditure to different sectors of economy. All the economic indicators of fiscal policy do not play equal role for economic growth. Hence, it is required to identify the most significant factors to draw special attention. Besides, monetary policy also contributes for economic growth through injecting money supply in the economy. Monetary policy is based on interest rate to maintain appropriate level of money supply (M2) in the economy with the purpose of moderate inflation and sustainable economic growth. It is issued and implemented by central bank (Bangladesh Bank) in any country. Contractionary monetary policy is taken targeting to control inflation where expansionary monetary policy is taken targeting to boost up economic growth. Hence, it is also important to identify the significant tools of monetary policy that drive the economic growth. In Bangladesh, tools of monetary policy can be divided into two types such as quantitative and qualitative. Quantitative tools include bank rate, open market operations and variable reserve ratio. Qualitative tools include rationing of credit, moral suasion, regulation of consumer's credit and fixation of margin requirement.

Figure-01: Monetary Policy Framework



Source: Bangladesh Bank Monetary Policy Statement, 2017-18

In the aftermath of the global financial crisis, potential output in many affected countries declined sharply. Restoring robust growth is essential for addressing the fiscal challenges ahead. Fiscal policy can make an important contribution for lifting potential growth. At the macro level, fiscal policy helps to ensure macroeconomic stability, an essential prerequisite for growth. At the micro level, tax and expenditure policies can boost growth by altering work and investment incentives, promoting human capital accumulation and enhancing productivity.

Economic growth is one of the most important determinants of economic welfare. The global economic crisis that broke out in 2008 has reawakened interest in fiscal policy as an instrument for longer term growth and development (Shihab et al., 2014). The term fiscal policy has conventionally been associated with the use of taxation and public expenditure to influence level of economic activities (Shihab et al., 2014). The implementation of fiscal policy is essentially routed through government's budget. Fiscal policy deals with government deliberate actions in spending money and leaving taxes with a view to influencing macro-economic variables in a desired direction (Shihab et al., 2014). This includes sustainable economic growth, high employment creation and low inflation. This fiscal policy aims at stabilizing the economy (Shihab et al., 2014).In general, fiscal policy can be considered as one of the most important economic policies of economic policy makers. The significance of fiscal policy is perceived in connection with basic functions of this policy, such as allocation, stabilization and redistribution (Macek & Janku, 2015). However, it is necessary to realize that fiscal policy must also be perceived as the tool of economic growth (Macek & Janku, 2015). Fiscal policy is usually represented by the level and structure of government spending on the one hand and the level of individual taxes, tax mix on the other hand (Macek & Janku, 2015).

Chairman of National Board of Revenuein Bangladesh, Nojibur Rahman,has recently expressed his satisfaction over response received from tax payers.He said that the revenue authority promised to provide services over the year and inspired people to pay taxes to build a healthy nation (The Independent, November 08, 2017). Government should take some necessary steps like tax fair to increase the collection of tax revenue and tax collection process should be simplified(The Independent, November 08, 2017). Besides, initiatives should be taken to make the tax payer known about the benefits of taxpaying(The Independent, November 08, 2017).

In Bangladesh, export and import have significant impact on economic growth. If Government can ensure the maximum use of local raw materials in the production and encourage the establishment of backward linkage industries then production can be increased. According to some authors, there are two macro-economic reasons for why government spending can undermine economic performance. The first reason is "resource displacement". The second reason is the "financing cost". So, government expenditure should be increased at a standard amount that will not create any negative impact on economic growth.

From review of literature, it has rarely been found to develop multiple regression model based on the components of fiscal policy and monetary policy in Bangladesh. That is why; multiple regression models have been developed in this research paper taking consideration into several components of fiscal policy and monetary policy as independent variables that have impact on economic growth in Bangladesh. Hence, most significant components of fiscal policy and monetary policy have been identified to give more emphasize for ensuring expected economic growth.

2.0 Objective of the Study:

- To explain how components of fiscal policy and monetary policy influence the economic growth in Bangladesh.
- To determine statistically significant drivers and accelerators of economic growth in Bangladesh among the components of fiscal policy and monetary policy

- To recommend for the development of the significant components of both the policies to accelerate economic growth in Bangladesh.

3.0 Research Methodology:

3.1 Type of Research: The research is empirical in nature. Theoretical analysis along with numerical evidences has been used to substantiate the findings of the paper comprehensively. Data has been presented in the simple and logical form.

3.2 Data Source: Data has been collected from both the primary and secondary data sources. To develop the theoretical background of the study and numerical evidences, secondary data were collected from economic reviews, journals and different websites. As all the components of considered tools of monetary policy are associated with the credit department of banks, survey on the components of monetary policy has been conducted with 5 point (1 to 5) likert scaled (ranging from strongly disagree to strongly agree) structured questionnaire where respondents were heads of credit department serving in the head offices of different banks selected randomly. Numerical secondary data of last 11 years (2006-17) regarding several components of fiscal policy have been taken into consideration from Bangladesh economic review.

3.3 Variables Covered: In case of fiscal policy, GDP has been taken as dependent variable where several components of fiscal policy such as investment current year, net foreign finance, tax burden/tax revenue and trade balance have been taken into consideration as independent variables. In terms of monetary policy, GDP has been selected as dependent variable where low bank rate, restriction in reverse repo, low variable reserve ratio, flexibility in rationing of credit, proper moral suasion, flexibility in regulation of consumer's credit and fixation of less margin requirement have been selected as dependent variables.

3.4 Sampling Method: Total number of sample for the survey on the components of monetary policy as primary data is 38 heads of credit department taken randomly where total number of heads of credit department is 57 in the scheduled banks serving in Bangladesh. Besides, numerical secondary data on several components of fiscal policy has been collected for last 11 years (2006-17).

3.5 Data Analysis Tools: Well accepted regression models have been developed separately in the study for each policy evaluating some components of fiscal policy and monetary policy in Bangladesh. Data entry was conducted in SPSS 16.0 data editor and analyzed under some specific hypothesis. Statistical tools like correlation, regression coefficient, analysis of variance (ANOVA), factor analysis and trend analysis were used.

4.0 Limitation of the Study: It is not possible to draw multiple regression models taking into consideration some more components of fiscal policy as there is high correlation among some components as independent variables. Besides, due to not having quantitative data of all the components of monetary policy, qualitative data has been used to generate findings. Moreover, qualitative data has been used as quantitative approaches of monetary policy have some numerical data which do not change over the years against GDP growth.

5.0 Literature Review: Private investment has been treated as one of the most important factors contributing in economic growth. On the one hand, private investment may facilitate and stimulate public investment through the provision of infrastructural support (Blejer & Khan 1984, Auer 1989). On the other hand, public investment may crowd out private investment (Blejer & Khan 1984, Auer 1989). Iqbal and Zahid (1998) have identified that rising budget deficit is one of the main constraints of economic growth in Pakistan and recommended policy such as reducing non-developmental expenditure for lowering the budget deficit. According to Nightingale (2002), no one really likes paying taxes yet they are inevitable for the provision of social welfare. So, Administration should find out the way of encouraging tax payer to pay the tax. Tax policy must be generally accepted by the people if it must gain compliance (Nightingale, 2002). Le and Suruga (2005) explored the impact of public investment and FDI on economic growth and they also investigated the effect of public investment on FDI using panel data of 105 of developed and developing countries over the period 1970-2009. Their result shows that both public investment and FDI have a positive relationship with economic growth. Laffer (2009) cautioned that "A government simply cannot tax a country into prosperity". As important as tax revenue is to a nation, many people still find it difficult to comply with their tax obligation. Kumar and Woo (2010) have found the inverse relationship between initial debt and subsequent growth as a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of around 0.2 percentage points per year. Isaac and Samuel (2012) have found that government intervention in three areas such as reexamination of government spending, channeling more credit to the private sector and designing appropriate policies that deal with the current high domestic public debt and budget deficit should get emphasize for economic growth in Kenya. Haque (2013) in his research paper has identified that both public and private investment have positive impact on economic growth in the short and long run process where private investment is more effective in the long run than public investment. Odhiambo et al.,(2013) have found positive relationship between fiscal deficits and economic growth. The study has recommended that the government should enhance revenue generation capacity through broadening the tax base to finance the government expenditure. It should determine the optimal level of government expenditure for avoiding deficits and the crowding out effect of private investment (Odhiambo et al., 2013). Malik (2013) has identified current expenditure as non-productive while development expenditure as productive when expenditures are regressed in disaggregated form and productivity of development expenditure is dependent on the existence of current expenditures. Osuala and Jones (2014) have identified the long run equilibrium relationship between fiscal policy and economic growth in Nigeria during the period from 1986 to 2010 where government's recurrent and capital expenditures have significant and positive impact on economic growth. Noman (2015) in his study concluded that exchange rate, interest rate, inflation rate, government revenue and expenditure are significant policy variables that affect economic growth in Bangladesh. Falade and Folorunso (2015) in their research paper concluded that the appropriate instrument mix in promoting and sustaining economic growth in Nigeria are level of government revenue, level of foreign exchange rate, domestic interest rate and level of money supply. Bangladesh export trade is characterized by the procedure of a few commodities in a confined market. It is not desirable to depend on limited number on export items aimed at limited market for economic development. So, the market for economic development in Bangladesh should concentrate on both at product and market diversification (Akther, 2015). Cyril (2016) in his study concluded that rising capital inflow will increase economic growth and recommended that for stabilizing the economy, government should formulate and implement viable fiscal policy options. The national income tax fair has set the record on revenue collection, with Tk 2129,67,75,811 collected from the weeklong event at the end of 2016 (November 8, 2016, Dhaka Tribune).

6.0 Statistical Results and Findings:

6.1 Impact of Fiscal Policy on Economic Growth:

From the econometric analysis of the secondary data of last eleven fiscal years (2006-2016) regarding GDP and several components of fiscal policy, following statistical outcomes have been found. Findings of the study have been categorically discussed in the following subsections:

6.1.1 Coefficient of Correlation: From table-01 of appendix, it has been found that there is a high degree of positive correlation (R=1.00) between several components of fiscal policy and GDP.

6.1.2 Regression analysis: From table -03 of appendix, the following multiple regression model has been developed by taking GDP as the dependent variable and some relevant components of fiscal policy as the independent variables.

The standardized regression model is:

$$GDP = \alpha_0 + \beta_1 INVC + \beta_2 FCI + \beta_3 TB - \beta_4 GTT + \in_i \textit{(Residual factors)} \ldots\ldots \text{(i)}$$

The fitted regression model is:

$$GDP = 1104.166 + 0.18(INVC) + 0.152(FCI) + 0.691(TB) - 0.067(GTT) \text{ (ii)}$$

Where,

INVC	Investment Current Year
FCI	Net Foreign Finance
TB	Tax Burden/ Tax Revenue
GTT	Trade Balance

According to table 01 of appendix, the value of R^2 = 0.999 or 99.90% which implies that 99.90% of the total variation of GDP can be explained by the above regression model where remaining 0.10% variation can be explained by the variables which are not included in the regression model (Kothari, 2001). Here, the value of adjusted R^2 is 0.998 or 99.80%

which suggests that addition of any other independent variable will not contribute in explaining any variation in the dependent variable. In the above model, if the value of all the independent variables is zero then GDP will be BDT 1103 crore.

6.1.3 Test of Hypothesis: In this study, following hypothesis have been developed:

H_0 : *The coefficient of multiple determinations in the population is zero*

H_1 : *The coefficient of multiple determinations in the population is not zero*

The statistical method of F-test has been used at 5% level of significance to identify whether there is significant relationship between GDP and above mentioned (section-6.1.2) four independent variables. In this regard, null hypothesis can be accepted if the calculated p (significance) value is greater than 0.05 and we can reject the null hypothesis if the calculated p (significance) value is less than 0.05. From table -02 of appendix, it has been found that the value of p (significance) is 0.000 against all the independent variables which is less than 0.05. Hence, the null hypothesis is rejected. There is significant relationship between the independent variables and the dependent variable. It can be said that economic growth in Bangladesh is dependent on various variables such as, investment current year, net foreign finance, tax burden/tax revenue and trade balanceas statistically significant (Gujarati, 2012).

6.2 Impact of Monetary Policy on Economic Growth:

6.2.1 Coefficient of Correlation: From table-04 given in appendix, it has been found that there is a high degree of positive correlation (R=0.953) between several tools of monetary policy and GDP growth.

6.2.2 Regression analysis: From table -05 of appendix, the following multiple regression model has been developed by taking GDP growth as the dependent variable and some relevant components of monetary policy as the independent variable.

The standardized equation model is:

$$GDP = \alpha_0 + \beta_1 LBR + \beta_2 RRR + \beta_3 LVRR + \beta_4 FRC + \beta_5 PMS + \beta_6 FRCC + \beta_7 FLMR \text{ .... (i)}$$

The fitted regression model is:

$$GDP = 3.854 + 0.287(LBR) + 0.419(RRR) + 0.467(LVRR) + 0.474(FRC) + .345(PMS) + .311(FRCC) + .449(FLMR) \text{........(ii)}$$

Where,

LBR	Low Bank Rate
RRR	Restriction in Reverse Repo
LVRR	Low Variable Reserve Ratio
FRC	Flexibility in Rationing of Credit
PMS	Proper Moral Suasion
FRCC	Flexibility in Regulation of Consumer's Credit
FLMR	Fixation of Less Margin Requirement

According to table 04 of appendix, the value of R^2= 0.908 or 90.80% which implies that 90.80% of the total variation of GDP growth can be explained by the above regression model where remaining 0.10% variation can be explained by the variables which are not included in the regression model (Kothari, 2001). Here, the value of adjusted R^2 is 0.886 or 88.60% which suggests that addition of other independent variables will not contribute in explaining any variation in the dependent variable. In the above model, the value of α_0(constant) is 3.854. In above model, we have excluded one variable titled regular guidance for generating new investment opportunities rather than direct action due to having low factor loading or importance (0.244) and we have considered all the variables having factor loading above (0.30) generated from factor analysis. Independent variables of the model are associated with liberalized policy reform, initiatives against excess liquidity in banking sector and financial inclusion.

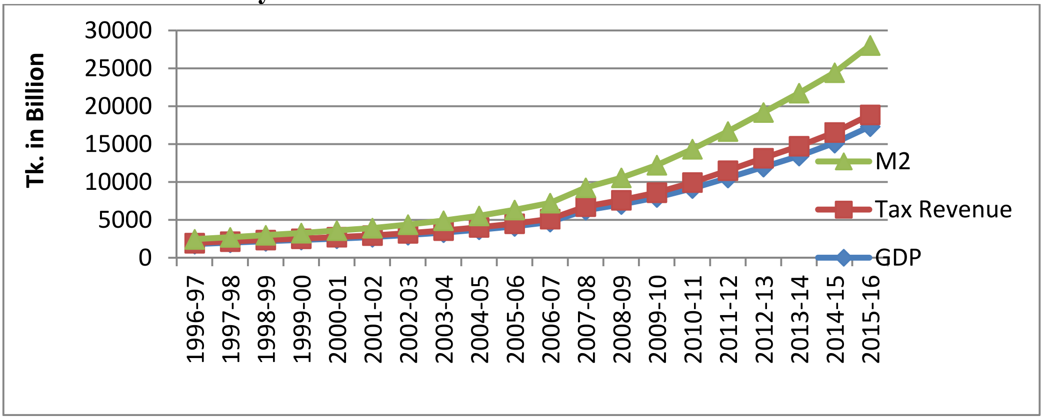
6.2.3 Test of Hypothesis: In this study, following hypothesis have been developed:

H_0 : *The coefficient of multiple determinations in the population is zero*

H_1 : *The coefficient of multiple determinations in the population is not zero*

The statistical method of F-test has been used at 5% level of significance to identify whether there is significant relationship between GDP growth and above mentioned (section-6.2.2)five independent variables. From table -06 of appendix, it has been found that the value of p (significance) is 0.000 against all the independent variables which is less than 0.05. Hence, the null hypothesis is rejected. It implies that, there is significant relationship between the independent variables and dependent variable (Gujarati, 2012).

6.3 Trend Analysis:



Data Source: Bangladesh Economic Review, 2015-16

From the above figure, it has been found that from fiscal year 1997 to fiscal year 2016, money supply (M2), tax revenue and GDP (current price) are in increasing trend. The trend seems rapid after FY 2006-07 than before FY2006-07. Tax revenue is in increasing trend even above GDP since FY2006-07. The trend analysis evidences that economy is rapidly growing after the FY 2006-07 and the growth is consistent as well. However, the gap between money supply in economy and GDP is increasing that may stimulate inflation if these money cannot produce more goods and services to contribute in GDP growth.

7.0 Conclusions and Recommendations: Throughout the study, it has been found that there is high degree of positive correlation between dependent variable and independent variables. From the perspective of fiscal policy, it can be mentioned that economic growth in Bangladesh is significantly dependent on investment current year, net foreign finance, tax burden/tax revenue and trade balance as important components of fiscal policy that deserve to be more emphasized by the government during proposing and implementing budget to foster economic growth. Besides, quantitative and qualitative tools of monetary policy prescribed by Bangladesh Bank have been taken into consideration that are used by Bangladesh Bank targeting sustainable economic growth and controlled inflation. Among these tools, low variable reserve ratio, fixation of less margin requirement and flexibility in rationing of credit have more impact on economic growth compared to other four tools and these three tools of monetary policy should be taken into consideration by central bank more importantly during issuing and implementing monetary policy to foster economic growth. However, all the tools of monetary policy considered under the study have been found statistically significant.

Government and central bank have to work together so that the excess money supply greater than the GDP in current price can be utilized to foster economic growth through investment opportunity creation and employment generation for inclusive economic growth under controlled inflation. The study will help policy makers to take decisions regarding several components of fiscal policy and monetary policy according to the level of significance to foster economic growth.

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Appendix

Table: 01

Model Summary				
Model	R	R Square	Adjusted R Square	Durbin-Watson
1	1.000	0.999	0.999	2.311
a. Predictors: (Constant), GTT, FCI, INVC, TB				
b. Dependent Variable: GDP				

Table: 02

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170100000.000	4.000	42520000.000	1879.000	.000[a]
	Residual	135775.529	6.000	22629.255		
	Total	170200000.000	10.000			
a. Predictors: (Constant), GTT, FCI, INVC, TB						
b. Dependent Variable: GDP						

Table: 03

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			Std. Error	Beta		
1	(Constant)	1104.166	296.008		3.730	0.010
	INVC	0.351	0.050	0.180	6.978	0.000
	FCI	12.141	4.054	0.152	2.995	0.024
	TB	5.984	0.579	0.691	10.335	0.000
	GTT		0.379	-0.067	-4.283	0.005
a. Dependent Variable: GDP						

Table: 04

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.953[a]	.908	.886	.87692	.908	42.197	7	30	.000	1.972

a. Predictors: (Constant), Fixation of less margin requirment, Restriction in reverse repo, Low variable reserve ratio, Flexibility in regulation of consumer's credit , Low Bank Rate, Flexibility in rationing of credit, Proper moral suasion

b. Dependent Variable: GDP

Table: 05

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	227.141	7	32.449	42.197	.000[a]
	Residual	23.069	30	.769		
	Total	250.211	37			

a. Predictors: (Constant), Fixation of less margin requirment, Restriction in reverse repo, Low variable reserve ratio, Flexibility in regulation of consumer's credit , Low Bank Rate, Flexibility in rationing of credit, Proper moral suasion

b. Dependent Variable: GDP

Table: 06

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	3.854	1.944		1.983	.057	-.116	7.825					
	Low Bank Rate	.683	.139	.287	4.916	.000	.399	.966	.346	.668	.273	.899	1.112
	Restriction in reverse repo	1.367	.190	.419	7.186	.000	.979	1.756	.252	.795	.398	.905	1.105
	Low variable reserve ratio	1.072	.162	.467	6.632	.000	.742	1.402	.297	.771	.368	.620	1.614
	Flexibility in rationing of credit	1.119	.144	.474	7.770	.000	.825	1.413	.553	.817	.431	.827	1.210
	Proper moral suasion	1.016	.213	.345	4.774	.000	.581	1.451	-.210	.657	.265	.588	1.701
	Flexibility in regulation of consumer's credit	.716	.136	.311	5.262	.000	.438	.994	.441	.693	.292	.879	1.137
	Fixation of less margin requirment	1.092	.142	.449	7.704	.000	.802	1.381	.529	.815	.427	.905	1.105

a. Dependent Variable: GDP