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Accounting in World and in Ukraine – Retrospective Approach. Applied Science or Practical Activity?

Ivan DERUN
Faculty of Economics
Taras Shevchenko National University of Kyiv, Ukraine
ivanderun0601@gmail.com

Iryna SKLYARUK
Faculty of Economics
Taras Shevchenko National University of Kyiv, Ukraine
irinaskl@mail.ru

Abstract:

In this article it goes about the development of accounting from the standpoint of a scientific approach and practical activities. The main purpose of this study is to analyze this institution as an individual applied science. It was caused by multiple discussions in the academic circles about the place of accounting in science, as many economists share an idea that accounting is mostly a practical activity, not a scientific theory. This is due to the fact that the accounting practice is developing more rapidly than its theory. In the article, a special attention is paid to the study of the range of issues faced by the accounting theory, those it must solve as a result of new challenges in the economic reality, namely: the definition of a scientifically based methodology for determining fair value, the completeness of the information on intellectual capital in the reporting, a role of accounting as an entirely economic institution. Thus, it is reported in the article that accounting is an applied science, which in its research and own methodology has to use interdisciplinary tools to fight off these big challenges.

Keywords: accounting, accounting as social and economic institution, accounting theory, International Financial Reporting Standards, US GAAP.

JEL Classification: M40, M41, B10, B20.

Introduction

During its historical development, the issue of accounting is discussed extensively as to whether it is the science or profession, what its theoretical aspects are, and what the subject of its practice is. The impact of globalization and integration transformations on the economic development leads to some changes in the management system. Basically, it lies in the increasing role of managerial decision-making at the enterprise as a primary management unit with the accounting data as the key information base. This data must be provided by the highly qualified staff. The accounting profession, without which the business entity is not able to operate and develop, has got a mixed assessment. The reason for that is the fact that this profession is in high demand in every field of activity and is considered prestigious. However, knowing the importance of accounting as practice, the issue of the place of accounting in the science is still a subject of discussions. Thus it explains the relevance of the research topic.

The purpose of this study is to analyze and substantiate the theoretical principles of accounting as an applied science, which was caused by controversies and debates in the scientific works of the national and foreign scientists.

To reach this goal, the following objectives were set:

- to identify the current perspectives of the development of accounting as a science, which uses interdisciplinary tools in its own methodology;
- to highlight the main approaches to the interpretation of accounting as a practice or profession, and science.

The general scientific and specific methods of cognition were used in this study. Methods of analysis and synthesis, the unity of the logical and historical, theoretical generalization, a systematic approach to studying the genesis of accounting as the science and practice, and highlighting individual approaches to the interpretation of its essence and functioning peculiarities were used in the study. Applying the methods of induction and deduction, comparison and grouping, analogies and scientific abstractions, practical recommendations are given for the improvement and further development of accounting as applied science.

Conclusions

When performing an abstract and logical analysis of the interpretation of the notion 'accounting' in terms of theoretical and practical aspects, it was found out that the definition of the category during its historical development was different. At present, the idea of accounting is influenced by not only its own methodology, but also the methods of other sciences, namely: philosophy, sociology, political science, etc. Moreover, it is quite popular to apply the interdisciplinary approach to the modern accounting research – at the intersection of economics, history, sociology, linguistics, etc.

Considering the evolutionary development of the accounting profession, the accounting education has a great social significance at the stage globalization and integration transformations. Therefore, there is a need for training highly qualified specialists of the new generation to ensure the successful management of accounting, reporting and overall functioning of business entities as individual institutional units, as well as to ensure financial stability in the country, by complying with the provisions of the legislation in terms of taxes and fees, which are deducted to the state budget.

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*** Law of Ukraine "On Higher Education", of July 2014 #1556-VII (with changes and additions), http://zakon4.rada.gov.ua/laws/show/1556-18/page (referred on 14.05.2015).

Do Money Supply, Inflation, and Interest Rate Matter Towards Influencing Malaysian Stock Market Performance?

Ehsan RAJABI
Department of Economics, Faculty of Economics and Management
Universiti Putra Malaysia
Rajabi.ehsan63@gmail.com

Junaina MUHAMMAD
Department of Accounting and Finance, Faculty of Economics and Management
Universiti Putra Malaysia
Junaina2012@gmail.com

Mohsen AMINI KKHOZANI
Department of Financial Engineering, Faculty of Engineering, Lenjan Branch
Islamic Azad University, Isfahan, Iran

Abstract:

This paper investigates the relationship between macroeconomic indicator and Shariah Compliant stock performance in Malaysia for two different periods which are before and after Bursa Malaysia joined forces with FTSE from 1999 to 2013. After controlling for multi-collinearity problem, the findings indicate that macroeconomic variables play an important role in determining Shariah Compliant stock performance in the Malaysian economic. One of the notable finding is that only money supply (M3) seems to significantly and negatively associate with the KLSI before FTSE join forces with Bursa Malaysia. After joining FTSE and Bursa Malaysia, only money supply (M3) has a positive and significant relationship towards FBMES. However, variables such as exchange rate, interest rate, and consumer price index have a significant negative relationship with FBMES. Furthermore, Crude Oil Price (COP) does not significantly influence Shariah Compliant stock performance in Malaysia for both periods.

Keywords: Shariah compliant, stock performance, money supply, Vector Error Correction Model.

JEL Classification: R5, E4, C1

Introduction

Previous findings indicate that there are certain relationship between macroeconomic variables and stock price (e.g. Maysami and Koh, 2000; Adel, 2004; Sohail and Hussain, 2011). However, many of these studies are conducted in developed countries and focus on conventional stock performance. Although macroeconomic variables have relationship with stock price, not all macroeconomic variables may have relevant relationship. Hasan and Nasir (2009) find that inflation and GDP are weakly correlated with stock price in Pakistan and Maysami and Koh (2000) reveal that money supply is not the determinant for stock price in Singapore stock index. For that matter, selection of factors for analysis is one main obstacle to analyse the impact of macroeconomics variables on stock price. There are only few researches done on the impact of macroeconomic variables towards Shariah Compliance stock performance especially in Malaysia. Furthermore there is no research has been carried out on the performance of the Shariah Compliant stock performance before and after adopting the new FTSE stock market index format.

Therefore, this study focuses on analyzing the short and long run relationship between macroeconomic variables (money supply, inflation, interest rate, exchange rate, industrial production index, and oil price) and Shariah compliant stock performance in the Malaysian stock market from the period of April 1999 to June 2013. In addition, we compare the relationship between macroeconomic variables and Shariah compliant stock performance before and after the introduction of KLSI and FBMES.

The research questions have been addressed based on the research objective. What is the relation between the macroeconomic variables and Malaysian Shariah compliant stock performance? How changes in the macroeconomic variables can affect the movement of the Malaysian Shariah compliant stock performance.

Conclusion and recommendation

Many previous studies have indicated the existence of relationship between macroeconomic variables and the equity market but certain industry and sectors in different country may result in different significant macroeconomic explanatory power towards changes in equity price. The reason for this is because certain sector may have a different reaction and performance to different variability of the macroeconomic variables. This paper focus on the relationship that exist between macroeconomic variables (money supply, inflation, interest rate, industrial production index, exchange rate, and crude oil price) and Shariah Compliant stock performance in Malaysia for two different periods which are before and after Bursa Malaysia joined forces with FTSE. This is done by using Johansen Cointegration and VECM analysis in the Eviews 7 software. Correlation analysis for all of the independent variables was computed to detect and avoid multicollinearity problem among the independent variables. Industrial Production Index (IPI) was omitted from the equation and the other variables remain.

Table 7- Vector error correction model (short run relationship)

Dependent Variables	Independent Variables F-Statistic (Wald Test)						T-Statistic
	DLKLSI	**DLM3**	**DLIR**	**DLCPI**	**DLCOP**	**DLEX**	**Ect-1**
MODEL 11 (BEFORE BURSA MALAYSIA JOIN FTSE)							
DLKLSI		0.7671	0.5632	1.6362	0.0105	0.7667	-0.0173
		(0.3811)	(0.4530)	(0.2008)	(0.9183)	(0.3812)	(0.1274)
DLM3	0.7902		0.3502	0.0296	1.6332	2.2710	0.0007
	(0.3740)		(0.5540)	(0.8633)	(0.2013)	(0.1318)	(0.5741)
DLIR	2.9246	0.1169		0.8180	2.6877	1.0115	0.0758*
	(0.0872)	(0.7323)		(0.3658)	(0.1011)	(0.3145)	(0.0000)
DLCPI	0.0026	1.3901	0.0570		0.2703	3.8357	0.0004
	(0.9589)	(0.2384)	(0.8112)		(0.6031)	(0.0502)	(0.3808)
DLCOP	0.0675	2.6783	2.5273	1.5716		0.6952	-0.0432*
	(0.7950)	(0.1017)	(0.1119)	(0.2100)		(0.4044)	(0.0070)
DLEX	0.3433	0.0550	4.4727*	6.2115*	2.4083		0.0009
	(0.5579)	(0.8145)	(0.0344)	(0.0127)	(0.1207)		(0.1703)
MODEL 12 (AFTER BURSA MALAYSIA JOIN FTSE)							
DFBMES		0.9801	0.0012	0.1729	0.0029	9.7001*	-0.1552*
		(0.3222)	(0.9717)	(0.6775)	(0.9976)	(0.0018)	(0.0011)
DLM3	0.1512		0.7201	0.0015	0.2018	0.2018	0.0050
	(0.6974)		(0.3961)	(0.9686)	(0.6532)	(0.6532)	(0.6997)
DLIR	3.4017*	4.7764*		4.5489*	3.9728*	2.9827	0.0549
	(0.0011)	(0.0289)		(0.0329)	(0.0462)	(0.0842)	(0.2284)
DLCPI	1.0237	0.0105	0.2905		1.0528	6.7764*	-0.0240*
	(0.3116)	(0.9182)	(0.5899)		(0.3049)	(0.0092)	(0.0000)
DLCOP	9.0034*	1.9201	0.0399	14.3333*		2.6602	-0.3773*
	(0.0027)	(0.1658)	(0.8416)	(0.0002)		(0.1029)	(0.0001)
DLEX	0.6754	1.6578	0.5458	0.0380	0.1495		0.0066
	(0.4111)	(0.1979)	(0.4600)	(0.8453)	(0.6989)		(0.8111)

Source: Authors
Note: *, represent Significance at 5% level, ( ) represent probability

The findings from this paper indicate that macroeconomic variables play an important role in determining Shariah Compliant stock performance in the Malaysian economic. One of the notable finding that can be found in this research is that only money supply (M3) seems to significantly and negatively associate with the KLSI before FTSE join forces with Bursa Malaysia. However, the relationship changes once FTSE and Bursa Malaysia joins. Variables such as exchange rate (EX), interest rate (IR), and consumer price index have a significant negative relationship with FBMES. This finding is consistent with the likes of Maysami and Koh (2000), Ibrahim and Yusoff (2001) Wongbangpo and Sharma (2002), and

Ibrahim and Aziz (2003). On the other hand, only money supply (m3) has a positive and significant relationship towards FBMES and this finding is in line with the like of Azmy *et al.* (2009) and Hussin *et al.* (2012) for studies based on Malaysian data.

The short run analysis was conducted through VECM test and this paper found out that none of the selected variables is the short run factor for the Shariah Compliant stock performance before Bursa Malaysia join with FTSE. However, after Bursa Malaysia join with FTSE, foreign exchange rate (EX) do cause the Shariah Compliant stock performance in the short run.

Several weaknesses and limitation were identified and should be improved in certain area such as analysis tools, methodology, and collection method. For starters, Kuala Lumpur Shariah Index (KLSI) was introduced in 1997 but this paper use data from 1999 due to lack of data availability. This may affect the consistency and accurateness of this paper.

Another weakness is that this paper could include more variables such as tax rate, unemployment rate, gold price, earning per share, and dividend per share where this paper can evaluate the impact of non-macroeconomic variables and macroeconomic variables towards the Shariah Compliant stock performance in Malaysia.

Furthermore, there are many other ways to conduct this kind of research that might be more appropriate such as GARCH model, Impulse Response Function, and Variance Decomposition where it can measure the strength of the relationship towards the dependent variable. Nevertheless, this is further complicated by the difficulty to understand and apply these models suggested by previous researchers, which happen to be above my understanding and knowledge.

The finding has several significant implications towards the reader. Firstly, the finding shows that the new Shariah compliant stock performance has similar relationship with the Shariah non-compliant stock performance. This finding shows Shariah compliant stock performance also plays an important role in measuring stock performance. Furthermore, the new Shariah compliant stock performance is by far having a better performance compared to the old Shariah compliant stock performance because it has include the selected macroeconomic variables in assessing its performance. As a result, the quality is better and it will boost the confidence level of the reader especially investors. Last but not least, exchange rate has been a significant variable for Shariah compliant stock performance before and after the introduction of the new format whereby both local and foreign investor may be able to take advantage of the exchange rate movement for investing purpose.

Finally in term of recommendation for future research, the focus of this paper is only to examine the effect of changes in macroeconomic variables towards the Shariah Compliant stock performance in Malaysia. It does not cover other sectors and industries that play an important role in the Malaysian economy. Furthermore, this paper can be extending to more variables including non-macroeconomics variables towards the Shariah Compliant stock performance. Such researches are required to understand the behavior of the stock price movement especially the Shariah Compliant stock performance which will benefit investor, regulators, and researchers in the future.

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Audit of Adequacy Degree for the Principle of Activity Continuity

Cicilia IONESCU
Faculty Financial Accounting Management
Spiru Haret University
cicilia.ionescu@yahoo.com

Abstract:

Our entire research concerning audit of the adequacy degree for the principle of activity continuity of a an entity is based on the personal experience in auditing the financial statements but mainly on finding of a plausible answer at the following question: „Do the auditor opinion expressed in an Audit Report totally supports the assessing the credibility of financial statements?" The answer for this question is that „The Auditor report supports the assessment of financial statements but is not a warranty regarding the future viability of economic agent". This warranty, if the timing is not too optimistic, is insured by the action undertaken by the auditor in the direction of auditing of the degree of adequacy of the principle of activity continuity.

Keywords: financial statement audit, the auditor's opinion, audit report, activity going concern, the auditor's responsibility.

JEL Classification: H83

Introduction

In order to find answer at the above mentioned question, we want to remind that lately the financial statements of the economic agents which are subject to accountancy regulations which comply with international and European directives on accountancy have been audited by financial auditors, natural or legal persons. The auditing is performed fully in the line with the specific requirements of the EU directives, with the Development Programs of the Accountancy System in Romania and in force audit legislation.

In order to perform financial audit activities, the auditor, natural or legal person passes through important stages/phases, such as: understanding of accountancy and internal control systems, setting of general objectives of financial statements audit, expressing of an opinion regarding the image offered by the audited financial statements, audit of conformity according to the laws and requirements in force, auditing regarding the adequacy degree of the principle of activity continuity as basis for the preparation of financial statements, sectional auditing of the financial statements, drafting of audit report of the financial statements. Each of these stages has its individual and corroborate role, all being of use, finally, at shaping a reasonable opinion regarding those financial statements, which can be formulated within an audit report. Thus:

- *During the stage on understanding the accountancy and internal control systems* – an efficient approach requires that the auditor has a sufficient understanding on the way the accountancy and internal control systems are conceived and their operation method. The auditor assesses the recording and processing system of transactions performed by the audited agent and whether it can be used as a basis for establishing the financial statements. If the auditor decides he can rely on the internal controls, he will assess these controls and will perform conformity tests upon them.
- *During the stage which involves the setting of the general objectives of an audit* – the auditor will consider the fact that the auditing of the financial statements has to comply with the provisions of Accountancy Law, the enforcement norms of the law and harmonized accountancy norms regarding the economic agent's accountancy, the financial exercise, the financial statements of the economic agent, accountancy principles and rules, approval and signature of the economic agent financial statements, approval of profit distribution, the administrators' report, approval and submission of the economic agent yearly report, publishing of the yearly economic agent report, the general accounts plan, the balance format and the profit and loss account, situation of the treasury flows, situations of the own capital changes.
- *During the stage when the auditor expresses an opinion regarding the image of the financial statements* – he is in charge with creating and expressing of an opinion on the audited financial statements. The opinion can be: *without reserves (unqualified)* and it is expressed when the auditor thinks that the situations provide an accurate image or that they are correctly presented, in all its

significant aspects, according to the identified financial reporting type (standards); *with reserves (qualified)* and it is expressed when the auditor thinks that an opinion without reserves cannot be expressed, but the effect of any misunderstanding with the management or which leads to a limited applicability field is not so significant and comprehensive, so that it could create a contrary opinion or the situation when an opinion cannot be expressed; *contrary opinion* which is expressed when the result of a misunderstanding is so significant and comprehensive for the financial statements, that the auditor comes to the conclusion that a qualified report is not adequate in order to provide information regarding the incomplete or erroneous nature of the financial statements; *the impossibility of expressing an opinion* which occurs when the potential effect of the activity limitation is so significant and comprehensive, that the auditor was not able to obtain sufficient audit results and therefore, he cannot have an opinion regarding the financial statements.

- *During the stage which deals with the conformity with laws and regulations in force* – the auditor has the responsibility of taking into account the legislation and regulations in force, when he audits the financial statements. Therefore, he applies auditing measures and procedures which should provide the finding of errors, deviations and legalities with direct consequences upon the amounts from financial statements or upon the audit results.
- *Audit report* – it is drafted as an audit result performed by an independent auditor upon the financial statements of an entity after the audit evidence obtained as a basis for an opinion regarding the financial statement is reviewed and assessed. This review and assessment implies taking into account of the fact whether the financial statements were drafted observing the accepted general reporting type, such as the International Accountancy Standards, or relevant national practices or standards. It may also be necessary to analyze whether the financial statements comply with the statutory requirements. The report must comprise in a written form a clearly stated opinion on the financial statement, taken as a whole.

The problem which occurs is: "*Does the auditor's opinion expressed in an Audit* Report represent the guarantee of credibility for the financial statements?" The answer at this situation is that "The auditor's *report supports the assessment of financial statements, but it is not a warranty regarding the future viability of the economic agent*". This guarantee, provided that the term is not too optimistic, is assured by the action performed by the auditor, with the purpose of auditing the adequacy degree of the principle of activity continuity, which will be analyzed later.

Conclusion of the audit and reporting

a) The auditor decides whether the problem aroused related to the principle of activity continuity has been properly solved.

The principle of activity continuity can be used for management decisions regarding the future actions, due to its mitigation factors and in such a case, the auditor shall consider whether such plans or other factors need to be presented in the financial situations. If a proper presentation is not performed, the auditor expresses a qualified or contrary opinion, as appropriate.

b) The problem of activity continuity is not solved.

If, according to the auditor reasoning, the problem of activity continuity is not properly solved, he shall consider whether the financial situation adequately describe the main conditions that generate substantial doubts regarding the economic agent capacity to continue to operate in the foreseeable future; he may say that there is a significant uncertainty, if the economic agent will be able to continue its activity and, therefore, it is unable to collect its assets and to reduce its debts during the normal course of activity; he may say that the financial statements do not include adjustments regarding to the retrievability and classification of the values of registered assets or regarding to the classification of debts that may be necessary in case the economic agent is unable to continue its activity.

If the presentation is considered as adequate, the auditor does not express a qualified opinion or a contrary one.

If a proper presentation is performed in the financial statements, the auditor can express an unqualified opinion and he can modify the audit report, by a adding a paragraph with the purpose of emphasizing the problem related to the principle of activity continuity, by focusing on one aspect that has the above mentioned aspects; he is not prevented from expressing an opinion in case of an uncertainty regarding the activity continuity.

If no adequate presentation is performed in the financial situations, the auditor expresses a qualified opinion or a contrary opinion, as appropriate.

c) The principle of activity continuity, considered as inadequate

If based upon the additional proceedings and of the obtained information, including the effect of mitigation circumstances, the auditor's reasoning is that the economic agent is unable to continue its activity in the foreseeable future; the auditor decides that the principle of activity continuity used for preparation of financial statements is not adequate. If the result of the inadequate hypothesis used for the preparation of the financial statement is so significant and comprehensive, so that it has erroneous results, the auditor expresses a contrary opinion.

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*** Government Decree no. 983/2004 for the approval of Organization and Operation Regulation of the Romanian Financial Auditors Chamber, the Official Gazette, no. 634 of 13 July 2004;

*** Order of the Ministry of Finances no. 1802/30.12.2014 for the approval of accounting regulations on the annual and consolidated financial statements, the Official Gazette, no. 963 of 20 December 2014;

*** Decision no. 20/2004 of the Council of Romanian Financial Auditors Chamber for the approval of the Code regarding the Ethic and Professional Conduct in the Field of Financial Audit, drafted by the International Federation of Accountants (IFAC, Edition 2003, the Official Gazette no. 966 of 21 October 2004);

*** Government Emergency Ordinance no. 90/2008 on statutory audits of annual accounts and the consolidated annual financial statements, the Official Gazette no 963 of 30 December 2014.

Influence of the Market Orientation on Business Performance of High-Tech Firms in the Manufacturing Industry: Comparison of Regression Models of "Market Orientation – Business Performance" in the Czech Republic and Germany

Patrik JANGL
Tomas Bata University in Zlin
Faculty of Management and Economics, Czech Republic
jangl@seznam.cz

Abstract

The study deals with relation of market orientation and business performance in the Czech Republic and Germany, including comparison of both countries. Subject of the study was regression model of "market orientation - business performance"; whereas individual relations were tested first and then mutual invariance of the Czech and German model. Casual relation was checked by the help of multiple regression analysis. Measurement of configural, metric and scalar invariance was done by the method of Multigroup Invariance Analysis.The studied statistic sample included 351 high-tech firms from the manufacturing industry, whereof 164 were Czech firms and 187 German. During the testing of market orientation (four dimensions) a twelve-item "modified market orientation scale" (MMOS) was used and business performance (one dimension) was measured by three items. The study showed a significant positive relation between three dimensions of market orientation and business performance only. There was no significant relation in one studied case. On the basis of testing invariance it may be confirmed that both regression models agree in all studied criteria.

Keywords: market orientation, business performance, modified market orientation scale (MMOS), multigroup invariance analysis, configural, metric and scalar invariance, Czech Republic, Germany, high-technology manufacturing companies

JEL Classification: M31, M10

Introduction

There is a wide range of studies that prove the influence of market orientation on business performance. However, there has not been done any international comparative analysis of such models in the Czech Republic and Germany so far.Aim of this article was firstly to verify a causal relation between individual parts of market orientation and business performance and then to create a comparative analysis of the Czech and German regression model of "market orientation and business performance" on a sample of high-tech firms in the manufacturing industry. Market orientation in this study is understood as a process of gathering of market information about customers and competitors, sharing and integrating these information within the company and reactions to these information in the form of a strategic actions. The article is traditionally divided into three main parts. The first part explains theoretical points for the given issues, including summary of definitions. Methodology of quantitative research and tested hypotheses are mentioned in the second part. The final part discusses the main results and observations resulting from the research, including summary of the main contributions.

Conclusion

The market orientation was described in this study as a process of active collection of market information, their interpretation in the firm and implementation into strategy. It is particularly continuous control of situation on the market, mapping the behavior of competitors, finding out present and future needs of customers, using e.g. data mining, mystery shopping or CRM (Customer Relationship Management). Task of the firm's staff is to arrange, analyze and share precious information in all management levels and in individual sections within the organization structure. Following this step it is necessary for management to transform information into knowledge assets and to take their total importance into consideration before taking action.

The main contribution of this work was to acquaint readers with model of "market orientation - business performance" in the Czech Republic and Germany. Aim of the article was to find out relation between market orientation and business performance and to compare causal models to each other. We managed to prove a positive significant relation between generation of market information about customers, dissemination and integration of this information inside the company and reactions to this information in the form of a coordinated action. Hypotheses H_1, H_3 a H_4 were hereby proved.In this research we did not manage to prove relation between market orientation and business performance, therefore hypothesis H_2 was not confirmed. It generally results from the study of Czech and German high-tech firms that the market orientation is one of key factors influencing on performance of firms. At the same time we did not manage to prove any differences between regression models "market orientation and business performance" in the Czech Republic or Germany on the sample of high-tech firms in the manufacturing industry. *Tests of sub-models revealed configural, metric and scalar invariance.* It also results from the study that both Czech and English versions of the used measuring scale MMOS and business performance measurement are fully equivalent and the respondents in the Czech Republic and Germany understand the items in the same way. Hypotheses H_5, H_6 a H_7 were hereby confirmed. High-tech branch forms a specific group of firms in which strict assumptions must be observed. These results may be considered as another proof of a positive relation between market orientation and business performance in both countries provided that there are stable conditions on the market and mutual equivalence between the studied models is confirmed.

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Foreign Direct Investment, Oil Prices and Global Financial Crisis: Evidence from Singapore

Koi NYEN WONG
Business School, Sunway University, Malaysia
koinyenw@sunway.edu.my[1]

Soo KHOON GOH
Centre for Policy Research and International Studies
Universiti Sains Malaysia, Malaysia
skgoh@usm.my

Hooi HOOI LEAN
School of Social Sciences, Universiti Sains Malaysia, Malaysia
hooilean@usm.my

Abstract:

Foreign direct investment (FDI) is often cited as an important feature of the Singapore's economy. In addition to its contribution to the city-states' capital formation, it also fosters international trade, technology transfer and yields other spillover effects. Despite Singapore economy is highly internationally linked, it cannot insulate itself against external shocks e.g. the Asian financial crisis, global financial crisis, and oil price shocks, to name a few. This study attempts to ascertain whether the effects of external shocks on the sources of FDI in Singapore are transitory or permanent using the Lagrange multiplier (LM) unit root tests proposed by Lee and Strazicich (2003 and 2004). The empirical evidence reveals that the external shocks had only transitory effects on FDI regardless of the source of the FDI either by region, major investor country or other investor country. The findings provide policy measures on how the government should best respond to shocks that affect FDI in the city-state in the short run.

Keywords: foreign direct investment; unit root; multiple breaks; oil price shock; global financial crisis; Singapore

JEL Classification: E24; F21

Introduction

Singapore is popularly known as one of the four Asian Tigers[2] in the region and its remarkable economic success is attributed to the adoption of export-led growth strategy through foreign direct investment (FDI). In retrospect, FDI inflows not only have been an important catalyst for the city-state's industrialization process but also have contributed to the economy in terms of employment generation, gross domestic product (GDP) and international trade (e.g., Kwong, 2001; Ghesquiere, 2007). Owing to its strategic geographical location, excellent infrastructure, high degree of trade openness and liberal investment policy[3], inward FDI is instrumental in transforming the city state into a global centre for financial and business services (see Islam and Chowdhury, 1997; Singapore Economic Development Board, 2004; Cheong and Wong, 2006).According to UNCTAD (2014), Singapore was the third largest destination country of FDI after China and Hong Kong in terms of attracting FDI projects in the Asia Pacific in 2013 (see Table 1). In 2013, the major sources of FDI by region in Singapore comprised Asia[4], Europe[5], and North America[6], which jointly accounted for 69.3% of total inward FDI (see Table 2). On the other hand, Australasia was relatively less important as a source of FDI due to its relatively much smaller

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[1] Corresponding author. The authors will like to acknowledge the research grant 1001/CDASAR/816209 from Universiti Sains Malaysia, Penang, Malaysia.

[2] The other three Asian Tigers are Hong Kong, South Korea and Taiwan.

[3] There are no restrictions on foreign investment in Singapore, as the government believes that multinationals have massive resources and international network are able to stimulate international trade.

[4] The major investor countries from Asia were Japan (SGD71.9 billion), Hong Kong (SGD34.6 billion), Malaysia (SGD 27.3 billion), India (SGD24.4 billion), and China (SGD16.4 billion) (Department of Statistics, Singapore).

[5] The major investor countries from Europe were Netherlands (SGD84.4 billion), United Kingdom (SGD58.5 billion), Switzerland (SGD40.2 billion), Norway (SGD 20.8 billion) and Luxembourg (SGD22.8 billion) (Department of Statistic, Singapore).

[6] The major investor countries from North America were United States (SGD11.4 billion) and Canada (SGD6.5 billion) (Department of Statistics, Singapore).

share of foreign investments in the country. Moreover, in 2013, both Europe's and North America's percentage share as sources of FDI in the city-state had decreased from 22.9% and 18.9% in 2012 to 21.8% and 18.8% respectively, while the Asia's percentage share had increased to 28.7% in 2013 from 28.3% in 2012. The bulk of inward direct investments in Singapore from these three main regions were concentrated in the following industries, namely, financial and insurance services, wholesale and retail trade and manufacturing (refer to Table 2).

Table 1. Top 5 Destination countries of FDI in Asia Pacific, 2012 and 2013

COUNTRY	2012 (billion dollars)	2013 (billion dollars)
China	121	124
Hong Kong, China	75	77
Singapore	61	64
Australia	56	50
India	24	28

Source: UNCTAD (2014) World Investment Report 2014: Investing in SDGs: An Action Plan, United Nations, New York and Geneva.

Table 2. Source of FDI in Singapore by region and by major industry, 2012 and 2013

REGION	**2012**		**2013**	
	% Share	Top 3 Industry	Percentage Share	Top 3 Industry
Asia	28.3	(1st) FIS (2nd) WRT (3rd) MNF	28.7	(1st) FIS (2nd) WRT (3rd) MNF
Europe	22.9	(1st) FIS (2nd) MNF (3rd) WRT	21.8	(1st) FIS (2nd) MNF (3rd) WRT
North America	18.9	(1st) FIS (2nd) MNF (3rd) WRT	18.8	(1st) FIS (2nd) MNF (3rd) WRT
Australasia	2.6	(1st) FIS (2nd) PS (3rd) WRT	2.4	(1st) FIS (2nd) WRT (3rd) MNF
South & Central America and the Caribbean	24.8	(1st) FIS (2nd) MNF (3rd) WRT	26.0	(1st) FIS (2nd) MNF (3rd) WRT
Other Countries	2.5	(1st) FIS (2nd) RES (3rd) WRT	2.3	(1st) FIS (2nd) RES (3rd) WRT
TOTAL	**100**		**100**	

Source: Singapore Department of Statistics

Notes: FIS denotes Financial&Insurance Services; WRT denotes Wholesale&Retail Trade; MNF denotes Manufacturing; RES denotes Real Estate Activities; PS denotes Professional Scientific&Technical Administrative and Support Services

Apart from transferring resources like capital, technology and management resources to the host economy, the presence of multinational corporations (MNCs) in the city-state could bring other economic benefits to the host economy. For instance, the empirical studies show that inward FDI in Singapore could forge linkages with services trade (Wong et al., 2009); could lead to output growth of the manufacturing sector (Anwar, 2008) as well as manufacturing industries (Jayawickrama and Thangavelu, 2010); could result in employment growth in the manufacturing sector (Wong and Tang, 2011) and, could lead to productivity spill over to local manufacturing firms (Guo and Yuen, 2012). Despite the city-state's economy is highly internationally linked, there are concerns pertaining to whether the source of FDI in Singapore by region (such Asia, Europe and North America[7]) and country (the major investor countries from each region and other investor countries) is vulnerable or resilient to the particular type of external shocks e.g. a surge in oil prices and global financial crisis. By and large, macroeconomic time series including FDI inflows tend to respond to time specific external shocks (see Wong et al. 2009 and Wong and Tang, 2011). A literature survey shows that such empirical study is limited for the case of sources of FDI in Singapore. Hence, the empirical evidence on the vulnerability of the source of FDI in Singapore by region and by major investor and other countries to the different nature of shocks can provide useful policy measures to mitigate the these effects. The aim of this study is to ascertain whether the external shocks have a permanent or transitory effect on FDI in Singapore by region and major and other investor country using advance unit root tests which allow for structural breaks, i.e. the LM unit root test by Lee and Strazicich (henceforth LS) (2003,2004). Our aim is to investigate if the source of FDI in Singapore is found to have a unit root or non-stationarity, then the test statistic suggests that the particular external shock tends to have a permanent effect on the FDI inflows. Otherwise, the effect on FDI inflows is transitory. The findings can provide important policy measures on how the government should best respond to shocks that affect FDI in the city-state.

The remainder of the paper is as follows. Section 2 deals with data sources and measures and is also concerned with the procedure to perform the LM unit root tests. Section 3 reports and discusses the test results. The main conclusions and policy implications can be found in the last section.

Conclusions

A large part of Singapore's economy is dominated by MNCs, which use the city-state as regional hub for international trade, financial and business services. Hence, apart from fostering international trade and serving as an important regional financial centre, FDI has become an important feature of city-state's economy in terms of the transfer of the best available technology, employment generation and other spillover effects. Despite its economy is highly open to both international trade and capital flows, it cannot insulate itself against external shocks. In the empirical literature, there has not been any attempt to ascertain whether the effects of external shocks on the source of FDI in Singapore are transitory or permanent. In this study, we applied the LM unit root tests proposed by LS (2003 and 2004) on the source of FDI in Singapore by region, major investor and other investor countries. The main advantages of the LM unit root tests over the standard unit root tests are firstly, the structural breaks are endogenously determined from the data, and secondly, the structural breaks could vary by the source of FDI by region, major investor and other investor country.

Our findings suggest that the impacts of the various external shocks on the source of FDI in the city-state are temporary irrespective of the origin of investors i.e. either by region, major investor country or other investor country. The significant break dates identified for the external shocks are closely linked to the Mexican crisis, the Asian financial crisis, the global financial crisis and high oil prices. Since the external shocks and FDI inflows are closely linked in the short run, the Singapore government should take mitigating measures to alleviate the external shocks on FDI inflows. For instance, the devaluation of the Singaporean dollar during the financial crisis period is instrumental in reducing the acquiring cost for and financing of foreign operations in the city-state. These measures to some extent might be able to impede either the cancelled or postponed investment plans by the foreign MNCs. Moreover, the home currency depreciation also tends to increase the nominal competitiveness of existing export-oriented FDI on one hand, and to discourage the outflows of FDI on the other. In addition, the Singapore government should assist the crisis-affected foreign affiliates to gain access to credit facilities so that they would not experience financial difficulties to self-finance their operations or through reinvestments.

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Model for Innovation through Information Network Sharing

Luminița PISTOL
Faculty of Marketing and International Business[8], Bucharest
Spiru Haret University, Romania
luminita.pistol@spiruharet.ro

Rocsana TONIS (BUCEA-MANEA)
Faculty of Marketing and International Business, Bucharest
Spiru Haret University, Romania
rocsanamanea.mk@spiruharet.ro

Abstract:

Nowadays the extinction of financial, economic and scientific globalization urges the companies to come up with new methods of accessing information in order to have adequate management which properly meets the market request. This article aims to discuss how innovation influences the firms' profitability while protecting the environment. It also analyses how widely innovation and eco-innovation will contribute to the improvement of the global economy as well as to the environment protection. This should be an aim for every person who wants to breathe clean air, to drink clean water, to spend leisure time in an unpolluted environment, to preserve the nature for future generations. The authors propose a model of innovation through information network sharing, based on the Blue Ocean Strategy.

Keywords: open innovation, environmental innovation, model of innovation, network business ecosystem, Blue Ocean Strategy.

JEL Classification: O3

1. Introduction

The firms have to take into account a sustainable development plan. The profit on short term at any price, affecting the environment is considered a trap because it implies investments, technologies and methodologies that do not support a safe economic development, turning against the company as a boomerang. When the boomerang returns the company will either fail or will have the option to invest in safe technologies and methodologies, providing eco-friendly products and services. On long term, the firms will be the beneficiary of a positive impact and of reducing productivity costs, fulfilling the requirements of global legislation in the field.

In this article we discuss the opportunity for firms to adopt open innovation, eco-innovation in their development process. Firstly, we initiate a literature review and then we propose a model of innovation, based on the Blue Ocean Strategy.

The companies tend to involve both customers and employees in the supply chain and product/service management. The companies open their gates to the environment through blogs, focus groups and markets surveys. Even large companies have understood that innovation does not mean only investing in technology or in very complex laboratory or hiring the best specialists in the field and then waiting for the innovation to emerge. Nowadays innovation should be open and assume inter-firm cooperation in R&D.

Conclusions

The article emphasizes the importance of innovation within a Network Business Ecosystem, based on Blue Ocean Strategy, in order to get sustainable development. I have adapted the 4 concepts of Blue Ocean Strategy (ERRC: Eliminate – Reduce - Raise - Create) for SMEs operating in a virtual business environment. The eco-system offers an ICT platform and online services that are the support of business for the entire product/service life cycle. The members of the ecosystem come from different fields: research, marketing, ecology, consultancy, government, inventors and different size companies. Keeping all this in mind the authors have proposed a model of innovation for SMEs in a Network Business Environment.

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[8] 46 G Fabricii Str., District 6, Bucharest, Romania

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Poverty and Material Deprivation in the Crisis: Italy and Spain

Tindara ADDABBO
Department of Economics Marco Biagi
University of Modena and Reggio Emilia, Italy
tindara.addabbo@unimore.it

Rosa M.GARCÍA-FERNÁNDEZ
Department of Quantitative Methods for Economics and Business
University of Granada, Spain
rosamgf@ugr.es

Carmen LLORCA-RODRÍGUEZ
Department of International and Spanish Economics
University of Granada, Spain
cmllorca@ugr.es

Anna MACCAGNAN
Department of Economics and Statistics Cognetti de Martiis
University of Torino, Italy
anna.maccagnan@unito.it

Abstract

This paper assesses the impact of the economic recession caused by the global financial crisis on income poverty and deprivation in Italy and Spain to identify the most vulnerable groups and to guide policy makers. We consider the main socioeconomic and demographic characteristics of individuals impacting on their labor market status. The analysis is carried out separately for male and females to detect possible gender differences. Our results show the growth of material deprivation. Furthermore, the higher exposure of females to income poverty and material deprivation is verified in both countries despite of the efforts made to close the gender gaps in their labor markets.

Keywords: unemployment, labor market, income poverty, material deprivation.

JEL Classification: C50; D31; I32.

Introduction[9]

The economic downturn brought about a marked and incessant rise of unemployment affecting income of individuals and simultaneously constraining public budgeting. In addition, the measures to overcome the crisis have been directed through the strict control of public spending, especially in Southern countries of the European Union. So, a more disadvantaged population could be in risk of poverty if social support policies are dismantled.

In line with the previous comment, our analysis evaluates the impact of the economic downturn on income poverty[10] and material deprivation[11] (Fusco *et al*. 2011) and identifies the most vulnerable collectives in Italy and Spain considering possible gender differences. For this, we use the European Union Statistics on Income and Living Conditions (EU SILC) surveys referred to 2007 and 2010.

The remainder of the paper is organized as follows. Section 2 compares the selected countries. Section 3 reviews the economic literature on the links between labor market situation and income poverty

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[10] Those households or individual under the poverty line. In our analysis, those under the 60% of the median equivalent disposable income calculated using the OECD modified equivalence scale to take into account differences in household size and demographic composition.

[11] According to the European 2020 Strategy we define materially deprivation as a household (or individual) that is not able to afford at least three of the basic needs.

and material deprivation. The data, methodology and results will be presented in the later sections. The final section will offer conclusions and highlight policy implications.

Conclusions and policy implications

This paper deals with poverty and material deprivation in two Southern European countries that have been deeply hit by the crisis. We compare the risk of income poverty and material deprivation for individuals aged over 15 in the two countries by gender and highlight the impact of different factors by multivariate analysis.

Our findings show the increase of incidence and severity of poverty and the widening of poverty gap in Spain, as well as the growth of material deprivation as a consequence of the economic crisis in both countries. Furthermore, the higher exposure of females to income poverty and material deprivation is also verified in both selected countries.

With special regards to the employment status, we show how unemployment significantly increases the risk of being income poor or materially deprived in the two countries with a larger effect on income poverty for those who found themselves unemployed and not having been employed before. The latter is related to the system of unemployment benefit in the two countries that leads to inequalities in terms of sustainability of unemployment amongst different types of unemployed. So, major reforms of them are necessary to avoid a widening of these clear social fractures in crisis time. Thus, special attention should also be paid to the reinforcement of active policies of employment, which are clearly relegated to a low priority in these Mediterranean social protection models.

Non-standard work is found to increase income poverty and material deprivation in both countries. The effect on income poverty is larger in Italy for part-timers and full-time temporary and for self-employed in Spain. Therefore, additional measures should be adopted to turn these job options into real alternatives to unemployment, as it is wished by Spanish policymakers.

Both countries show heterogeneity in the risk of poverty and material deprivation across regions with a higher probability of income poverty and material deprivation in Andalusia and Extremadura in Spain and in the South of Italy. The inadequacies of social policy decentralization to close or at least prevent the widening of territorial fractures especially in Spain are clearly showed, so they should be reconsidered in order to avoid a higher risk of poverty or material deprivation and to avoid an increase in inequalities across regions.

In addition, our results stress that the demographic and economic challenges faced by the retirement system should take into account the need of preventing the risk of income poverty among the eldest individuals. Moreover, the impact of public budget cuts in the areas related with this age cluster should be considered.

Furthermore, social support to lone parent families and families with children should be improved in both countries to reduce the risk of income poverty and material deprivation of these groups of the population. Moreover, with regards to Spain, the education system should be improved to raise the qualification level of the labour - force, with the aim of reducing the gender gap, since less skilled workers are more affected by job destruction and, therefore, are more exposed to poverty and material deprivation.

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Oscillations in a Multi-Country Free Trade Model with Endogenous Wealth and Environment

Wei-Bin ZHANG
Ritsumeikan Asia Pacific University, Jumonjibaru 1, Beppu, Japan
wbz1@apu.ac.jp

Abstract:

This study shows economic oscillations due to periodic changes in some parameters in the multi-country economy with endogenous physical capital and wealth accumulation and environmental change proposed by Zhang (2014). The Zhang's model analyses not only inequalities in income, wealth and economic structures among countries, but also differences in environmental changes between countries. The main difference of this study from Zhang's model is that this study treats all the time-independent parameters as time-dependent. This study is interested in time-dependent shocks on the evolution of the economic system. After showing that the dynamics of J - country world economy is controlled by 2J differential equations, we simulate the motion of the model with three countries and carry out comparative dynamic analysis with regard to different time-dependent shocks. In association with different fluctuations in parameters, different economies experience different oscillations.

Keywords: economic fluctuations; exogenous shocks; growth and trade; economic structure; trans boundary pollution; environmental change

JEL Classification: F11; F180

Introduction

This study is concerned with demonstrating existence of economic fluctuations under different exogenous shocks. Although economists were interested in demonstrating business cycles in the 1950s and 1960s, a common way employed in the past is to "find out" economic phenomena which can be described by the well-examined equations in physics whose behaviour exhibit oscillations under some exogenous shocks. Since the early 1980s economists have proposed many models which explain mechanisms and phenomena of economic fluctuations. Zhang (1991, 2005, and 2006) shows how modern dynamic analysis can be applied to different economic systems, identifying existence of cycles, regular as well as irregular oscillations, and chaos in economic systems. There are also many empirical studies on economic fluctuations (e.g., Lucas, 1977; Chatterjee and Ravikumar, 1992; Gabaix, 2011; Giovanni, *et al.* 2014; Stella, 2015). This study tries to make another contribution to the literature of economic oscillations by demonstrating economic oscillations due to periodic changes in some parameters in the multi-country economy with endogenous physical capital and wealth accumulation and environmental change proposed by Zhang (2014).

Zhang's model analyses not only inequalities in income, wealth and economic structures between (any number of) countries, but also differences in environmental changes between countries. The model is built on the basis of the Solow model, the Uzawa two-sector model, and the Oniki-Uzawa trade model, and the neoclassical growth model in environmental economics. Moreover, Zhang's approach takes account of pollution both due to production and consumption. In economics dynamic relations between growth and environmental change have been formally analysed since the publication of the seminal papers by Ploude (1972) and Forster (1973).Tsurumi and Managi (2010) identify three effects that are significant for examining dynamics of environmental pollution and resource use: (i) increases in output tends to require more inputs and produce more emissions; (ii) changes in income or preferences may lead to policy changes which will affect production and thus emission; and (iii) as income increases, the economic structure may be changed which will causes changes in the environment. There are different economic factors that may affect environmental change (e.g., John and Pecchenino, 1994; Bravo and Marelli, 2007; Lamla, 2009; Prieur, 2009; Gassebner *et al*. 2011; Lin and Liscow, 2012). Partly due to analytical difficulties in modelling, a few trade growths take account of transboundary pollution. Our study models capital mobility and trade on the neoclassical growth trade model. Early trade models with capital movements are originated by MacDougall (1960) and Kemp (1961). Most of trade models with endogenous capital and/or knowledge in the contemporary literature are either limited to two-country or small open economies (for instance, Grossman and Helpman, 1991; Wong, 1995; Jensen and Wong, 1998; Obstfeld and Rogoff, 1998). This study deals with a global economy with any number of national economies. Our model is based on the trade model by Oniki and Uzawa (1965; see also Deardorff and Hanson, 1978; Brecher *et al*., 2002; Nishimura and Shimomura, 2002; Bold *et al.* 2003; Ono and Shibata, 2005). It should be remarked that none of these models with endogenous capital accumulation contains endogenous environmental changes. This paper generalizes the model by Zhang (2014) by treating all the time-independent parameters as time-dependent parameters. This study makes Zhang's model more robust in the sense that it takes account of different exogenous time-dependent changes in studying economic business cycles and fluctuations. This paper is organized as follows. Section 2 defines the multi-country model with physical capital and environmental change. Section 3 shows that the world with J economies is described by $2J$ differential equations and also simulates the model. Section 4 carries out comparative dynamics analysis with regards some time-dependent parameters. Section 5 concludes the study.

Conclusion

This study shows economic oscillations due to periodic changes in some parameters in the economic model proposed by Zhang (2014). Zhang's model dealt with a multi-country economy with endogenous physical capital and wealth accumulation and environmental change. It analyzed not only inequalities in income, wealth and economic structures among countries, but also differences in environmental changes between countries. International exchanges are not only economically, but also environmentally. The study emphasized interdependence among growth, environmental change, and trade patterns. The main different of this model from Zhang's model is that all the time-independent parameters are considered time-dependent. We are interested in time-dependent shocks on the evolution of the economic system. The dynamics of J - country world economy is controlled by $2J$ differential equations.

We also simulated the motion of the model with three countries and carried out comparative dynamic analysis with regard to different time-dependent shocks. We can comprehensively discuss many important issues related to growth and environmental change in a unique manner because our analytical framework contains not only the economic mechanisms for analyzing these issues, but also because we provided the computational procedure to follow the motion of the nonlinear dynamic system. We showed that that in association with different fluctuations in parameters, different economies experience different oscillations. We may extend and generalize the model in different directions. One-sector growth model has been generalized and extended in many directions. There are also different economic models with environmental changes. We may further develop our model along these lines. It is also important to further analyze behavior of the model with other forms of production or utility functions. Another important extension of the paper is to introduce international negotiations about pollution control.

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On the Relationship between Financial Integration, Financial Liberalization and Macroeconomic Volatility

Rajmund MIRDALA
Faculty of Economics, Technical University of Košice, Slovakia
rajmund.mirdala@tuke.sk

Aneta Svrčeková
Faculty of Economics, Technical University of Košice, Slovakia
aneta.svrcekova@tuke.sk

Jozefína Semančíková
Faculty of Economics, Technical University of Košice, Slovakia
jozefina.semancikova@tuke.sk

Abstract

Effects of international financial integration on the volatility of the total output and its main components have been a subject of rigorous academic discussion for decades. Even nowadays recent empirical literature suggests that its long-term benefits on economic growth are associated with spurious and vague side effects in terms of macroeconomic volatility.

This paper examines the relationship between international financial integration and output fluctuation. An analysis was conducted on a large sample of developed and developing countries over the past 40 years. We follow the approach employed by Kose et al. (2003) and use cross-sectional median of financial liberalization to subdivide developing economies into two groups: more financially liberalized (MFL) and less financially liberalized (LFL) economies. Our results indicate that while the volatility of output growth rates experienced a decreasing trend over time, financial integration had a significant contribution to output fluctuations. However, the relationship was stronger in developing countries.

Keywords: financial integration, financial liberalization, output volatility, consumption volatility, capital flows.

JEL Classification: F36, E44, F41, G15.

Introduction

Growth and productivity benefits, improved allocation efficiency and international risk sharing represent key incentives that initiated the process of capital flows liberalization in industrial countries since the beginning of 1980s. Many empirical studies and international financial institutions have also supported the introduction of liberalization policies by less developed countries. However, as substantial determinants of the overall speed of capital account liberalization associated with softening of capital controls and restrictions in developing countries has been soon recognized its side effects on macroeconomic stability. According to the recent empirical studies (i.e. Kose *et al.* (2010), Kaminsky and Reinhart (1999), Easterly *et al.* (2000) and Eozenou (2008)) increased volatility of macroeconomic variables induced by international financial integration is the clear implication of fluctuations in capital flows intensified by financial crises.

The analysis of the economic aspects of international financial integration still represents a leading topic in macroeconomics of open economy. This topic enjoyed increased interest in the recent research, especially due to occurrence of large scale of side effects during the current post-crisis period associated with possible negative impact of international financial integration on macroeconomic stability. Moreover, empirical research still provides contrary conclusions on the impacts of international financial integration on economic variables.

Our study examines the influence of international financial integration on the volatility of macroeconomic output and its components. We suggest that the analysis of the relationship between financial integration/liberalization and macroeconomic indicators is crucial due to rich empirical evidence about the existence of a negative correlation between the volatility of macroeconomic variables and the long-term economic growth (i.e. Kose *et al.* (2010), Ramey and Ramey (1995), Dabušinskas, Kulikov, Randveer (2012), Easterly *et al.* (2000), Badinger (2010)) though examined characteristics of this relationship are not clearly argued. However, theory suggests that the negative correlation is based on the increasing uncertainty of future revenues associated with the output and consumption volatility. This is due to the existence of risk aversion, resulting in crowding out investments and a decline in economic growth. Therefore, macroeconomic stability is a strong fundamental pillar for achieving long-term economic growth of a country.

The particular importance of our research is also linked with the indicated long-term decline in the degree of instability of macroeconomic aggregates in both developed and developing economies. This trend is obvious in most of the developed and developing countries. Kose *et al.* (2010), Jermann and Quadrini (2006) and Campbel (2004) argue that the main reason for this decline is still a subject of further academic discussions. However, the raising capital mobility induced by the trend of international financial liberalization together with general improvement of the economic and institutional environment still represent the key determinants of the examined decreasing trend in macroeconomic volatility.

Conclusion

In the paper we have analyzed the relationship between financial integration and macroeconomic volatility. Our results, supported by the rich empirical evidence of many other studies, indicate that macroeconomic volatility followed decreasing trend over the period of last four decades though developed countries experienced lower degree macroeconomic volatility than developing countries. However, the relationship between financial openness and economic development in developed countries seems to be non-significant. As a result, influence of financial integration on the macroeconomic volatility was disappearing over time. Similarly, the impact of financial integration of developing countries on macroeconomic volatility decreased with improved economic and institutional conditions. However, the relationship still remained positive which means that deeper financial integration caused excessive macroeconomic volatility.

Despite decreasing strength of the relationship between financial liberalization and macroeconomic volatility the overall contribution of financial liberalization to this trend is still more or less disputable. Developing countries seem to be in a vicious cycle. While foreign capital inflows provide growth incentives, rapid financial liberalization induces excessive macroeconomic volatility. Gradually increasing financial openness corresponding to inevitable economic, institutional and political improvements seems the be the only alternative for reaping benefits from financial integration while eliminating negative side effects and preserving macroeconomic stability.

Reduced macroeconomic volatility is usually observed in countries with proper mix of financial liberalization dynamics and the improvements of favorable economic environment in the country. However, insufficient degree of economic development represents one of the most frequent origins of adverse effects of financial liberalization reducing its gains and benefits in developing countries. Moreover, despite generally low levels of financial openness (insufficient financial integration), welfare gains from international financial integration are very low or missing at all especially in countries with less-advanced financial markets, poor quality of institutions, irresponsible macroeconomic policies, public sector corruption, political constrains etc.

Finally, increasing financial openness of developed countries was associated with reduced volatility of private consumption. Considering that public consumption in developed countries represented less volatile component of the final consumption we suggest that deeper financial integration in developed countries induced higher volatility of investments. We suggest that this channel may be considered as the key obstacle for developed countries to benefit more from financial integration.

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Improving Welfare in Congo: Italian National Hydrocarbons Authority Strategies and its Possible Coopetitive Alliances with Green Energy Producers

David CARFÌ
Department of Mathematics, University of California Riverside, USA
Department of Economics, California State University Fullerton, USA
davidcarfi@gmail.com, david.carfi@ucr.edu

Alessandro ROMEO
Academy of Advanced Scientific Studies, University of Reggio Calabria, Italy
alessandro.romeo988@gmail.com

Abstract:

In this paper we show how the use of David Carfì new coopetitive game model, which considers both collaboration and competition together and simultaneously, can advance the understanding and control of asymmetric R&D alliances between small Green Energy producers and large energy producers by carbon-fuels, in Congo. We consider the literature on asymmetric R&D cooperation and coopetition to propose a model of coopetitive game, which seems particularly suitable for exploring those types of asymmetric R&D alliances involving two energy firms and a venture capitalist in the foundation of a coopetitive Joint Venture. Specifically, we shall consider five players: a large firm (ENI), a small firm (Solar), a venture capitalist, a research joint venture (founded by the first two players) and finally the government of Congo, in which the productions take place. We graphically show that cooperative efforts are required (and beneficial for every player) even if the partners are potentially competitors in the energy market and we shape the common coopetitive payoff space, which they determine during the complex multi-faced interaction. We eventually show that the coopetitive partners can fairly balance their interaction dynamics and that this interaction affects both the value creation and value capture processes, improving the welfare and health conditions of Congo population.

Keywords: access to electricity in Africa, R&D alliances, coopetitive games, deep water project, ENI (National Hydrocarbons Authority), green energy and health.

JEL Classification: C72, D31, E21, G24, L24

Introduction: sustainability in the long term

The explosion of the environmental question in the second half of the century has focused the attention of the community on the need of conservation of vital resources for humans. This has meant that companies, in order to meet the new "needs" of customers, are trying to implement more sustainable behavior in the long run.

In particular, the *Corporate Social Responsibility* (CSR) studies the impact caused by operations of the company in society and the environment to which it belongs and with which there is mutual interdependence. The company which implements CSR inside has decided that, in addition to meet the legal obligations imposed by local regulation, also wants to invest in human capital, respecting the environment and the social progress.

Knowing that we live in a closed system in which resources are limited, we must create an economic system that respects the environment and the community: this leads to the creation of the *green economy*. Beyond CSR, even the green economy focuses on impacts caused by businesses to the community.

Eco-friendly technology and scientific knowledge are the key elements that contribute to implement this type of economy. It consists on the use of alternative energy sources, particularly renewable energy, such as solar power, wind power, geothermal, hydropower and biomass. With this type of economy we will also seek to reduce energy consumption and to undertake major strategies to reduce pollution, not neglecting, however, the possibility of obtaining energy efficiency.

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Conclusions

In this paper, we have shown how the use of D. Carfì new coopetitive game definition, which considers both collaboration and competition together and simultaneously, may advance the understanding and control of asymmetric R&D alliances, those between small (and/or young) firms and large (e.g. Multinational Enterprises).

The results of the mathematical study have proved that we can find more solutions that are advantageous both for the company and for the community, such as:

- Purely coopetitive solutions;
- Super-cooperative solutions without the 3rd player;
- Super-cooperative solutions with the 3rd player;
- Maximum-collective solutions.

Our contribution is twofold. Firstly, we have explained the living condition in Republic of Congo and what ENI has already done there to improve social and health conditions. Secondly, we have shown how game theory normal-form and extensive-form games can be used in coopetition studies to increase health conditions of people and to improve welfare in a particular area which was not very developed or industrialized until the actions taken by ENI. So, we encourage ENI and other large energy companies to look more closely at the model to understand that compete is not always the right way to "get rich" and to create wealth.

From an Economic point of view, we are sure that the competition is not the right way to have success. Energy enterprises should decide not to "fight" with other big energy companies to grab a good share of the market, but they have to cooperate to reach the maximum collective gain, for them and for the social communities. Indeed, it's important, for a world looking to the future, to study which is the best combination of richness for enterprises and welfare for the community. Our study, as it is presented, is completed and fully applicable. It can be surely implemented by other scholars and entrepreneurs interested in the energy field, and/or in living conditions of Africa and/or in green energy resources.

Surely, the model can be improved by widening the points of view, for example by studying not only a part of the region, but taking care of the entire Africa or using other innovative energy resources, that - during time - could be discovered.

If we want to live in good conditions, we'll have to be more "smart" and more "green" to save our life and our future and so we hope that enterprises should think the same to increase world conditions and welfare. Nowadays, we also need that ENI and other energy companies should use more renewable energy sources, in order to use less primary resources; so we're looking to stimulate more interest on these global issues.

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Financial Efficiency, Competitiveness and Profitability of Islamic Banks

Hadhek Zouhaier
Higher Institut of management of Gabès, Tunisia
hzouhair2000@yahoo.fr

Abstract:

The aim of our study was to determine the relationship between the level of financial efficiency, competitiveness and profitability of Islamic banks. To our knowledge, no research on Islamic banks has tried to accurately assess the role played by financial efficiency (costs, profits, capitalization and liquidity) on the profitability of Islamic banks. We were able to achieve these objectives through an empirical study on a sample of 29 selected Islamic banks targeted to have a good representative sample over a period of eight years from 2005 to 2012.

Keywords: profitability of Islamic banks, efficiency of Islamic banks, competitiveness of Islamic banks, panel data model.

JEL classification: G2, G21, C33.

Introduction:

Like any emerging industry, as it has grown, Islamic Finance has faced new challenges and fined answers to many questions. To assert the position it has managed to conquer so far and continue its development, it still has yet challenges. It is banking that were most in the securities since the first oil boom of the 1970s and the emergence of Muslim centers as a financial superpower. Islamic finance principles, however, are based on Islamic economic theory and to understand the former, the knowledge of the latter is required.

Far from remaining a mere fad, it has also freed from niche industry status to become an important cog in the financing channels of these economies. Efficiency can determine respectively the competitive behavior of Islamic banks, contrary to earlier theories which proved the negative aspect of non-competitive, market power and the non-bank efficiency, respectively. The efficiency approaches require that the most efficient banks are expected to earn more profits which respectively allow them to gain more market share and making it less competitive market (Demsetz, 1973) and (Peltzman 1977). For the banking sector the question also arises whether the market power allows the bank to have a better efficiency. The outstanding feature of this market is the dangerous presence of asymmetric information that leads to moral hazard and adverse selection. These effects make the sensitive bank to economic conditions. To reduce the effects of information asymmetry, the bank must make more efforts, which are expensive for the analysis and monitoring of various projects to fund. Or, it may be subject to additional costs if and only if it has market power and is not constrained by competition.

Therefore, a competitive Islamic banking market and / or less concentrated prevents the decrease of information asymmetry and can have negative effects on the efficiency of banks. The aim of our work is therefore to determine the relationship between the level of efficiency and profitability of Islamic banks.

Our goal is to measure and analyze the Islamic banking financial efficiency; on the other hand we try to explore the impact of the latter on the profitability of the banks. To our knowledge, no research on Islamic banking has tried to specifically assess the role played by financial efficiency (cost, profit, capitalization and liquidity) on Islamic banking profitability. We will meet the objectives from an empirical study on a sample of 28 Islamic banks selected a targeted way to have a good representative sample over a period of 8 years from 2005 to 2012.

In the first part, we start in the first chapter, the theoretical basis for Islamic finance. In this section, we present the basic principles of Islamic finance and financing techniques adopted in Islamic banks.

Subsequently, in the second chapter we present the theories relating to the profitability and efficiency of Islamic banking. And based on a literature review, we unroll the highlighting of the issue between efficiency and Islamic banking profitability and we end this chapter by presenting the links between these two phenomena and different strategies to be adopted by these banks to ensure their survival and continue to operate with mixed success.

At the empirical framework, we first present the operational framework and context of the study; in the following we present the variables and assumptions. Then in the following sections; 3 models of our study and the statistical tests used. Finally, we represent the estimated results with their interpretations.

Conclusion

The aim of our study was to determine the relationship between the level of financial efficiency, competitiveness and profitability of Islamic banks. To our knowledge, no research on Islamic banks has tried to accurately assess the role played by financial efficiency (costs, profits, capitalization and liquidity) on the profitability of Islamic banks. We were able to achieve these objectives through an empirical study on a sample of 29 selected Islamic banks targeted to have a good representative sample over a period of eight years from 2005 to 2012. Empirical investigations as part of this research lead to the following results:

- Cost efficiency approximated by the two CTIR and NIER ratios positively affect Islamic banking profitability.
- Efficiency profit approximated by the two OPIR and REP ratios affect positively the Islamic banking profitability.
- The capitalization ratio EA has a negative effect on the Islamic banking profitability.
- The liquidity ratio has a positive effect on Islamic banking profitability.
- The inflation rate as a proxy for the macroeconomic environment affects positively the Islamic banking profitability.

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Tendencies toward Venal Behavior and Social Norms

Matúš KUBÁK
Technical University of Košice, Faculty of Economics, Slovak Republic
matuskubak@gmail.com

Radovan BAČÍK
University of Prešov in Prešov, Faculty of Management, Slovak Republic
radovan.bacik@unipo.sk

Alexandra ANTALÍKOVÁ
University of Prešov in Prešov, Faculty of Management, Slovak Republic
alexandra.antalikova@gmail.com

Abstract:

We carry out a framed corruption experiment in the Slovak Republic, considering actions and social norms and the relationship between these two. Experiment follows modified experimental design firstly proposed by Cameron et al. (2009). Obtained data set shows that economic agents, thus human beings do not achieve subgame perfect equilibrium. Using logistic regression, we investigate the impact of the social norms on venal behavior of economic agents, who can act as a briber, bribee, or of someone who is negatively affected by corruption and is given an opportunity to report it.

Keywords: corruption, experimental economics, logistic regression.

JEL Classification: C91, D73, H39

Introduction

Corruption is the social phenomenon considered as the main threat to the democracy. Corruption is with the human species from the early beginning, in every establishment and in every place. Corruption endangers functionality of the market economy, economic and social development (Fisman and Svensson, 2007; Meon and Sekkat, 2005), economic competition, social stability, social equity (Jong-Sung and Khagram 2005) and weakens moral foundations of society. Corruption constrains access of citizens to public services, lead to lack of trust toward institutions, increase anarchy and indifference (Svensson 2003, Shleifer and Vishny 1993; Treisman 2000, Burki 1999). Research shows that corrupting negatively influence also efficiency of the courts (Treisman 2000), application of law (Uslaner, 2005), political institutions (Lederman, Loayza and Soares, 2005), liberalization of trade (Goldsmith, 1999), education, (Shleifer and Vishny, 1993) and economic growth (Ades and Di tella, 1999; Svensson, 2005; Mauro, 1995).

Among the most serious impact of corruption, we include the waste of public resources, transformation of long run investment to less corrupted areas, non-effective allocation of resources as an impact of non-transparent economic environment (Tanzi and Davoodi, 1998; Reinnika and Svensson, 2003), market deformation and overcharging of goods and services.

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Conclusion

Based on our analysis, we can conclude, that majority of individuals in our sample do not achieve subgame perfect Nash equilibrium. In total, only 38% of individuals proposed bribe, 24% of individuals accepted proposed bribe and even up to 64% of individuals reported corrupt behavior, when this occurred. On the other hand, these numbers are not far from experiments in which monetary reward was fairly higher. We showed that individuals are willing to increase their wealth at the expense of others also in the situation, when only 2 Euros are in the stake.

Summary arising from the social norms mapping part indicates that individuals are quite skeptical, mainly in terms of grand corruption, electoral corruption, judicial corruption and clientelism. Above 88% of respondents think that bribery is a common activity in Slovakia in the domain of health care services, labor market and police corps. The oddest-looking finding of our analysis is that only 31% of young people in Slovakia think that bribe proposal can be never excused. Remaining 69% stated that bribe proposal can be rarely or always excused. Further, only 41% of respondents stated that bribe accepting can be never excused. Remaining 59% expressed, that bribe accepting can be rarely, or always excused.

Concerning answers of subjects about the situation of Slovak Republic in Corruption Perception Index and World Bank ranking based on Gross Domestic Product, findings are following: 66% of respondents think, that situation of Slovakia is worse than the real situation is; and 78% think that position of Slovakia based on Gross Domestic Product value is worse than the reality.

The results of regression analysis revealed that females are less prone to venal behavior than males in terms of bribe proposing. Also, bribery is enhanced by deteriorating estimate about position of Slovakia in World´s bank ranking based on Gross Domestic Product value. Bribe accepting behavior is enhanced by attitudes of individuals toward excusableness of bribe proposing. More one thinks the bribery is excusable, more he/she is prone behavior. Also, worse one thnink the position of Slovakia is in the Corruption Perception Index, more prone he/she is to venal behavior. We failed to determine determinants of corruption punishing behavior, because of statistical insignificance of the model.

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