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Table of Contents

Panel Analysis of the Influence of Macroeconomic Factors on the Household Savings

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Abstract:

The current deepening fall in real consumption is caused by slight increase in nominal disposable income, increased inflation, as well as by the tax changes and developments in the savings rate. Looking at the savings rate in the Euro zone different household responses could be observed. This paper focuses on monitoring of the development of disposable income, household consumption and savings in the Visegrad Four countries in the period 2005−2014. The analysis covers impact of selected macroeconomic indicators (gross domestic product, disposable income, inflation rate, and unemployment rate) on volume of household savings using the panel regression. Within the analysis three models were used: pooling model (PM), fixed effects model (FEM), and random-effects model (REM). Performance of the analysis proved that in all three models the GDP has a statistically significant impact on household saving. The GDP increase by € 1 million caused an increase in gross domestic savings by € 0.20464 million.

Keywords: consumption, savings, gross domestic product, unemployment rate, disposable income.

JEL Classification: E20, E21, E257.

1. Introduction

Family saving and assets building has the potential to promote well-being across the life span. Assets symbolize household stability and serve as a safety net against unexpected life events (*e.g.* illness, unemployment, divorce). Households' stability could be affected by households' financial behavior under changing macroeconomic conditions. Saving represent one of the most important economic activity of households from both microeconomics and macroeconomics point of view. At microeconomic level household savings ensure stable level of consumption during the time of income reduction, aggregated household savings at macroeconomic level can be used as a source of investments (Zhuk 2015). Savings accumulation is also an element that shapes the pension policy system, particularly in the segment of individual, voluntary savings products that can be burdened with a considerable value impairment risk, which results from macroeconomic factors (Pukela and Adamisin 2015). The Korean households used to first purchase deposit or protection-type insurance, and then subscribe to private pension plan or savings-type insurance (Choe 2008). Horioka, Suzuki and Hatta (2007) in their analysis of impact of population aging on Japan's household savings rate and on its public pension system have found, that the rapid aging of Japan's population is causing Japan's household savings rate to decline and this decline can be expected to continue. The family saving decision making procedure usually consists of four steps: a) whether to save or not; b) how much to save; c) which savings tool to choose; and d) how to allocate savings in each tool (Choe 2008).

The main source of households' uncertainty comes from labor income generation, which is critically determined by unemployment. Fuenzalida and Ruiz-Tagle (2009) stated that households' financial vulnerability depends on their indebtedness levels and on the fragility of their income sources to be able to fulfil their obligations. Analysis of the factors affecting savings decision making process showed, that the incomes from different sources had different impacts on savings, and the risk tolerance also had a partial influence (Choe 2008). Zhuk (2015) in his investigation of the most influential macroeconomic factors that determine household savings formation in Ukraine proved that levels of such macroeconomic indicators as gross domestic savings, household consumption expenditures and gross national income were of first order of integration and had unit root. Badun and Franic (2015) examined the impact of selected macroeconomic indicators (wages, interest rate, stock exchange index, availability of loans and unemployment rate) to the housing savings in Croatia within the period 2000−2013.

According to research of Harris, Loundes,and Webster (2002) provided in Australia, income and wealth are positively and significantly related to the propensity for households to save, and the level of the interest rate has little or no influence. They indicated also impact of age, pessimism in their outlook, home ownership, children and their number, unemployment, disability, sole parent payments, and the area of residence. Horioka and Wan (2007) analyzed the determinants of the household saving rate in China for the 1995–2004 period. They found that China's household saving rate has been high and rising and that the main determinants of variations are the lagged saving rate, the income growth rate, (in many cases) the real interest rate, and (in some cases) the inflation rate. Chamon, Liu and Prasad (2013) described markedly increased China's urban household saving rate since the mid-1990s as well as the U-shaped the age-savings profile caused by rising income uncertainty and pension reforms. Modrakova, Hetes and Soltes (2014) were analyzing saving on pension in Slovak conditions. Mishra and Chang (2011) examined the factors affecting tax-deferred retirement savings among the farm households. Their results indicated that demographic factors, total household income, off-farm work, and risk preference play important roles in retirement savings plan participation. Retirement savings increase with household size, intensity of off-farm work by farm operator and spouse, and size of farming operation. They found that the amount of retirement savings decreases with operator's age and increases with spouse's age, and that cash grain and dairy farmers have lower retirement savings. Analyses of Pukela and Adamisin (2015) indicated the increasing importance of insurances and their role in shaping of household savings portfolios. Finlay and Price (2015) proved that households' saving ratios tend to increase with income, but decrease with wealth and gearing. More at-risk households such as single-parent and migrant households tend to save more than other households, all else being equal. Niculescu-Aron and Mihaescu (2012) stated that economic growth reflected by percentage of GDP increase determines a decrease of savings, since a 1% increase determines a 0.35% decrease of the saving rate. The inflation rate has a direct influence on saving, a 1% change determining an almost 0.07% change in the same direction of saving rate. Adema and Pozzi (2015) investigated the cyclicality of the household saving to household disposable income ratio for a panel of 16 OECD countries over the period 1969–2012. They found that three main determinants of household saving (i.e., unemployment risk, household wealth and credit constraints) have a significant impact on the household saving ratio. Households' debt increased the importance of financial counselling and planning, and financial education for households is getting more attention to improve the ability to financial management of households (Kim 2015).The significant relationship between the savings and investments exists and the dynamic of savings depends on the development of economy and vice versa (Bikas, (2008), Andrejovska and Banociova (2013)). Results of Jongwanich (2010) provided in Thailand (1960–2004) suggest that an increase in economic growth, inflation and terms of trade all have a significant positive impact on household and private saving rates. In contrast, the availability of bank credit tends to reduce household and private saving rates. Furthermore, public saving seems to crowd out household and private saving, but less than proportionately. This reflects a possible role of fiscal policy in increasing national savings in the economy. Over and above these variables, corporate saving is another important determinant of household saving. An increase in the former brings about a significant reduction in the latter. Similar results were described in works of Hajdu, Andrejkovic and Mura (2014), Soltes and Gavurova (2014), Banociova and Raisova (2012), Hakalová *et al.* (2014), Glova (2014), Mirdala (2014), and Michalski (2014).

Among the many factors that influence the saving propensity of the population, especially in Central and Eastern Europe, the most visible ones were those concerning the security and stability of income, something obvious in the context of the recession. During economic prosperity, families save money either because they have an excess from the income increase or they anticipate significant gains from interests, either because they are stimulated to save through adequate fiscal policies or/and they believe in the favorable evolution of the economy. On the other hand, 2008 brought a shock for all European states, which determined major changes in the saving behavior and the two groups of countries reacted differently. In Western Europe the saving rate decreased.

Conclusion

Income, savings and household wealth are widely discussed topics among professional and scientific community, as well as participating public. Households participate in the entire national economy, and their consumption and savings largely affect economic aspects of the whole country. Our study evaluated a ten-year development and relationship of the volume of savings and macroeconomic determinants affecting them. Understanding the impact of these factors is important not only for future economic planning and determination of prognosis, but also for calibrating of risk, and setting the macroeconomic policy. Out analysis confirmed that GDP had a positive impact on gross household savings. Unemployment had a negative impact on the savings; the increase in the unemployment rate by 1 percentage point caused a drop in gross domestic savings by € 969.70156 million. It remains questionable whether the expert discussions on future development trends and possible modifications of design of our determinants could reach general consensus and consistency.

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System Based Development of the Poultry Sector in Kazakhstan in Mid Term Perspective

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Abstract:

The paper is an attempt to present the current state and possible ways of development of the poultry sector in Kazakhstan as a complex adaptive system. It also aims to forecast the possible development of this industry is mid-term perspective. Additionally, it aims to propose the institutional measures that would enhance the development and competitiveness of Kazakhstan's poultry industry as a supply chain based integrated platform. The research is based on the heterodox assumptions of deductive and descriptive reasoning, with the system approach, based on the secondary data coming from various sources. Also various methods of the economic analysis, including the regression analysis and trend models were applied. For this kind of analysis were used secondary data sources. As a primary method, there was applied a multiple regression analysis to forecast the scale of the development of the poultry sector in Kazakhstan.

Keywords: economics, Kazakhstan, multiple factor analysis, poultry, supply chain platform.

JEL Classification: Q00, O13, F15, C69, O21.

1. Introduction

The current development of the agricultural sector in Kazakhstan is primarily aimed to ensure national food security, with special focus on food quality and availability. However, as it was broadly described by Golubov (2010) or Pomfret (2013), there are several problems with fulfilling these objectives, which come of technological, market and institutional sources. To solve these problems, the Kazakh government undertook broad reforms in frames of which assigned the important role to the domestic poultry industry, as one of the branches of agriculture, which is dynamically developing in recent years. The poultry industry has been chosen as a sector from which in a fast way the society could be supplied with valuable protein, due to the fact that other products of animal origin, *i.e.* milk are also in shortage and their supply is much more limited. It is pre-assumed (Wieck *et al*. 2014) that it might be possible to reduce sharpness in providing the population with production of animal husbandry products in the short time due to increase in production of fowl and eggs, which will come not only from agricultural enterprises, but also from peasant (private) farms and household's plots (from the total amount of fowl production 94 % are made in agricultural enterprises and 4% in household's plots) (Yesbolova *et al*. 2015b).

Conclusion

Poultry production in Kazakhstan is recognized as a promising and strategically important sector for ensuring the country's food security. Despite increase in production and considerable investments into poultry industry, Kazakhstan still remains dependent on import of poultry production - more than a half of the consumed production is imported to the country.

The analysis of the received results of processing of the questionnaire shows that the prices of the main products of poultry farming significantly differ from the prices of different forms of trade, and over time the population will prefer to do the purchases in supermarkets. And also for successful functioning on a sales market of fowl necessary to create distributor networks with the developed transport infrastructure.

The conducted research shows that in general poultry industry in Kazakhstan is a perspective sector. In mid-term perspective, this sector should be developed in a complex way. On one hand, the production (supply) side should be enlarged and modernized, especially through economics of scale and specialization. On the other, the demand side should be developed too, where special attention should be paid on price levels and distribution channels.

Nonetheless it needs to be remembered that technological and economic incentives might not bring expected results, if the institutional factors will not be implemented too. This is especially important with regard to market information, which should be used to reduce the production and trade risk under the conditions not only of national but also global competition.

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Foreign Capital Inflows, Institutional Factors and Economic Growth. Evidences from Republic of Yemen

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Abstract

The present study attempts to explore the effect of foreign capital inflows (i.e., Foreign Direct Investment (FDI), workers' remittances and foreign aid), on economic growth for Republic of Yemen. We also examine the role of corruption and political stability whether these factors have any impact on foreign capital inflows between 2003 and 2014. The empirical results reveal that FDI inflows have a positive and significant effect, while workers' remittances have insignificant impact on Yemen's economic growth.

However, results on the impact of corruption and political stability on economic growth are statistically insignificant. The findings of the study suggest some policy implication, i.e. FDI and remittances need to be enhanced, while corruption needs to be controlled and political stability be sustained in order to achieve sustainable economic growth and development.

Keywords: foreign capital inflows, institutional factors, Republic of Yemen.

JEL Classification: D7, F2, N15.

1. Introduction

Every state intends to achieve a higher level of economic growth and thereby improve social welfare. Therefore, they look for ways to expedite the process of growth and economic development. In this regard, the role of Foreign Capital Inflows (FCI) in the process of economic growth and development cannot be overlooked particularly incoming FDI and remittances. Although, there are arguments about the effect of FCI on the economic growth in developing countries, many research scholars opine that the components related to FCI affect the domestic savings and economic growth negatively in the developing countries especially where there are poor policies (Boone 1994, Enos and Griffin 1971, Khan *et al.* 1992, Papanek 1973). However, FCI serves as one of the ways to support GDP just like the empirical assessment of importance of FCI to growth of economy in some host countries (Balasubramanyam *et al.* 1996, Borensztein *et al.* 1998, Makki and Somwaru 2004). There is a widely shared view that FCI fosters host countries growth by raising domestic savings and then transferring technology from abroad. Moreover, FCI can increase competition in the host country's domestic market; and lastly, increase exports due to increase of foreign exchange flow to the economy at large (Hsiao and Shen 2003). According to Kim *et al.* (2007) in a convention, the developing countries welcomed FCI to fill the space existing between domestic savings and investments to promote economic growth. However, some other studies have been criticized based on general view that FCI hinders mobilization of economic growth and that of domestic savings.

Fundamentally, all developing countries are poor; hence they have lower income due to lower saving and investment. Consequently, lower income leads to lower taxable capacity leading to low government expenditure. Therefore, countries struggling to develop need to depend on FCI to make up for deficits in investment-saving and balance of payment. Therefore, the developing countries need FCI for their development. For a number of developing regions, the study of Driffield and Jones (2013) finds that the impacts of FDI inflows and remittances

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Table of Contents

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Do Conventional and Islamic Stock Markets Subject to Different Market Anomalies? Empirical Evidences from Indonesia and Malaysia

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Abstract:

This study aims to investigate whether the conventional and Islamic stock returns are subject to different calendar anomalies by testing the monthly calendar effects on stock returns in both markets. Focusing on the Indonesian and Malaysian Stock Markets, the closing monthly prices of the Jakarta Stock Exchange Index (JKSE), Kuala Lumpur Stock Exchange Index (KLSE), Jakarta Islamic Index (JII) and FTSE Bursa Malaysia Hijrah Shariah Index (FBMHS) were considered covering the period from 2004 to 2015. An independent sample of t-test is adopted to explore the differences between the conventional and Islamic stock returns in both countries, while the calendar effects of the stock returns is then tested using the multiple regression. The study finds that there were no differences between the conventional and Islamic stock returns, and the calendar anomaly is only existed in the Indonesian stock markets. This implies that although both the conventional and Islamic stock markets have been well integrated in both markets, the stock markets of Malaysia have been more efficient than the Indonesian counterpart.

Keywords: anomaly, monthly effect, Islamic capital market, conventional capital market, stock returns, Islamic finance.

JEL Classification: C32, C53, E44, G15.

1. Introduction

The capital market has been commonly used as one of the indicators of a country's economic progress as it essentially indicates the availability of long-term funding to support potential growth of the business sector. The stock market, in particular plays an important role in the economy since, in addition to its function as a means of funding for companies and other institutions, it also serves as a venue for investment.

Similar to other stock markets in the Asian countries, the stock markets in Indonesia and Malaysia have been progressing rapidly in recent decades as reflected by the continuous growth in the value of stocks, significant increase in the stock indices, transaction value and market capitalization, and more diversified investment products. The emergence of Islamic stocks in Malaysia at the end of 1999 and Indonesia in early 2003 was a period of phenomenal growth of stock markets in both countries. Since their inceptions, the Islamic stock markets continue to grow rapidly with increasing public awareness of conducting business and investment activities based on the *shari'ah*, which is free from the elements of interest (*riba*), uncertainty *(gharar)* and gambling (*maysir*) (Metwally 1997, Yusof and Majid 2007 and 2008, Majid and Kassim 2010, Yusof *et al.* 2011). Since then, Muslim investors can be more selective in investing their monies by not just looking at the rate of return and investment risk trade-off, but also considering the permissibility (*halal*) of investment so as to be in line with their religious belief.

Since the launch of the first Islamic stock market in Jordan in 1978, the world financial system experienced a drastic change with the Islamic stock market operating in parallel with the conventional stock market in several countries, including Malaysia and Indonesia. The Islamic finance industry has developed significantly ever since, especially during the 2008 global financial crisis and 2010 European debt crisis (Kassim and Majid 2010). Currently, the industry is no longer confined in the Muslim countries, but also in the western countries. Growing at a double-digit rate of around 15% per year, the Islamic finance industry has attracted the western countries to also introduce the Islamic stock market as an alternative investment avenue for the investors.

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The presence of the Islamic stock market has enabled the Muslim investors to diversify their investments in financial assets that are permissible based on the Islamic tenets. Despite this, the investors are assumed to be guided by the normal risk-return consideration. According to Sharpe *et al.* (1999), investments in financial assets are the core activity in the capital market. Investment involves the sacrifice of the certain current value to gain uncertain future values. Investors expect to accumulate positive returns from their investments, considering risks-returns trade-off. Apart from the expectation of positive rate of return, investing in the stock market also has risks that are difficult to predict. In every investment made both in the Islamic and conventional stocks, investors who expect to gain higher returns should bear a higher level of risk. Thus, investors should diversify their investment in order to gain positive return with a minimal level of risks.

While investing in stocks, investors consider all available information related to the stock issuers and economy as a whole including published and unpublished information in order to minimize errors in deciding in which stocks they are investing. The right investment decisions also require information about the market and economic conditions at all possible levels, namely nationally, regionally and globally. The extent to which the stock market reacts quickly and accurately to achieve a new equilibrium stock price which fully reflects the information that is available, which is so-called as the efficient stock market (Choudhry 2001, Jogiyanto 2009, Ambarwati 2009, As'adah 2009, Karim and Majid 2009, Al-Jarrah and Basheer 2011, Chia and Khim 2012, Debasish 2012) is also need to be well-understood by the investors so that they could minimize the investment risks and gain maximum diversification benefits.

Previous studies on stock market anomalies worldwide documented mixed empirical findings. These studies, however, discovered the existence of anomalies in the stock markets with the findings contradicting the theory of efficient markets. Several similar studies conducted on the Indonesian and Malaysian markets have also discovered the existence of anomalies in the stock markets, but very small number of studies has examined the monthly effect of both conventional and Islamic stock markets. Comparing to the vast-growing of the Islamic stock markets in the countries, number of studies on the Islamic stocks have been far smaller than that of the conventional counterparts. This motivates the present study to fill up the existing researches' gap by empirically exploring the efficiency of Islamic stock markets in Indonesia and Malaysia, and at the same time, comparing them with the conventional stock markets. With reference to Worthington (2012), this study, specifically, attempts to empirically examine the differences in returns between the conventional and Islamic stocks, and investigate the existence of seasonality in the form of calendar anomalies in both conventional and Islamic stocks in Indonesia and Malaysia.

The rest of this study is organized in the following sequences. Section 2 reviews the selected previous literatures on the stock markets and their anomalies. Section 3 highlights the data and research method on which the analysis of the study is based. Section 4 discusses the findings of the study and provides their implications. Finally, Section 5 concludes the paper.

Conclusion

This study empirically investigated the differences in returns between conventional and Islamic stock markets both in Indonesia and Malaysia. It also attempted to test the monthly effects on stock returns in both markets, covered the period 2004 to 2015. Closing monthly prices of the Jakarta Stock Exchange Index (JKSE), Kuala Lumpur Stock Exchange Index (KLSE), Jakarta Islamic Index (JII), and the FTSE Bursa Malaysia Hijrah Shariah Index (FBMHS) were utilized. An Independent sample of t-test was adopted to explore the differences between the conventional and Islamic stock returns in both countries, while the calendar effects of the stock returns was then tested using the multiple regression with dummy variables.

The study documented that there were no statistical differences in returns between the conventional and Islamic stock markets in both countries. This finding implied that the conventional and Islamic stock markets in both countries has been well-integrated, having the similar patterns in the stock prices movements both in conventional and Islamic stocks in both countries. This further implied that investors who investing their monies in both markets would gain similar diversification benefits. As for Muslim investors, buying conventional stocks are against the Islamic injunctions as it is contained elements *riba*, *gharar,* and *maysir* that are totally prohibited in Islam.

In addition, the study also found that there were calendar anomalies in both conventional and Islamic stock markets in Indonesia, but not in the neighboring stock markets. Specifically, there were monthly effects of April and July on the returns of the Indonesian conventional stocks, while the monthly effect of April was recorded in the Indonesian Islamic stock market. This implies that although both the conventional and Islamic stock markets have been well integrated in both markets, but the stock markets of Malaysia has been more efficient than the Indonesian stock markets.

The findings of the study are based on the methodology outlined above. The differences in returns between Islamic and conventional stock markets and the existence of calendar anomalies on both markets were empirically explored. For a more reliable and robust finding, further studies should also compare the differences in risks between those markets. Additionally, further studies should examine other type of anomalies and at the same time identify the factors contributing the presence of the calendar anomalies in markets. Covering broader range of the Islamic and conventional stock markets worldwide is also recommended.

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