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Table of Contents

Economic Clusterization and Complexion: The Specificity of the Coastal Zones of the South of Russia

Alexander DRUZHININ
North Caucasus Research Institute of Economic and Social Problems
South Federal University, Rostov-on-Don, Russia
alexdru9@mail.ru

Vasilisa GOROCHNAYA
North Caucasus Research Institute of Economic and Social Problems
South Federal University, Rostov-on-Don, Russia
tunduk@hotmail.com

Abstract:

The article considers the interaction of territorial-industrial complexes (TIC) and economic clusters (as paired, interdependent forms of economic organization) and their special role in the development of coastal areas facing the multilateral dependence on foreign economic, natural and other cycles. The authors propose the classification of coastal areas of Russia in accordance with the nature of their economic profile and external macrocycles of various origins. The analysis of the risk structure of economic activities within cluster and TIC results in proposed economic-mathematical model of formation and development of cluster. The authors give and prove hypothesis about the "transitions" economic clusters and clusterogen entities, on the one hand, and complexes, on the other, to be the important factor in advanced development of the coastal zones due to the accumulation of institutional framework and the experience of reorientation of economic actors from domestic to foreign market (and vice versa) in conditions of unstable external dynamics. The theoretical findings are proved by the empirical data that characterize the dynamics of coastal areas of Southern Russia.

Keywords: economic cluster, cross-border cluster, territorial-industrial complex, coastal area, South of Russia.

JEL Classification: F23, F55, F63, R12.

Introduction

The "territorial-industrial complex" (TIC) as well as the term "economic cluster" appeared in the last two decades both seem to be the conceptual keys and terminological constructs used in the analysis and understanding of the spatial organization of the Russian and world economy. The study of the nature of their interrelations is important not only for deepening the theoretical base of the regional economy and socio-economic geography (those that need to establish a more clear and adequate conceptual frameworks and research tools), but also for understanding the trends and processes which occur today in the economic space of the Russian regions. The dynamics of economic clusters and territorial-industrial complexes seems to be one of the main factors of the regional economic development, as well as coastal zones are to become one of the main areas where its bilateral interrelations lead to advanced development of the territories.

The objective of the research is the mechanism of interrelation of economic clusters and territorial-industrial complexes which is embodied in the trends of regional economic development of the South of Russia. Particularly the special attention should be paid to areas in which the elements of industrial complexation are connected with the nature of economic activity. One of the main types of such regions is presented by coastal zones, the continuum-discrete stripes extending to a depth of from 50 to 200 km from the coast and being characterized not only by the "thickening" of economic and residential activity, but also by the stable presence of various sectors of maritime complex (Druzhinin 2016).

The review of companies (including major ones) within territorial-industrial complexes is traditional for the Russian research approaches (Alaev 1977) in which TICs are treated as "economically interdependent combination of enterprises in selected industrial point or area in general, which gives a certain economic effect due to the planned recruitment enterprises" (Kolosovsky 1958, 2). Market reality and de-industrialization of the 1990s cased the transformation and degradation of TICs (up to complete disappearance of some of their links). Self-organizing processes and globalization shot to the forefront, however, they only actualized the fundamental issues of geographical division of labor, territorial concentration and agglomerating, localized connections between various companies and enterprises (Pilyasov 2013). In this context, the concept of "cluster" (as the category akin to TIC, but not identical with it, introduced by Porter, 1990) argues in Russian science. On the one hand, it essentially "pushed" the concept of the TIC, on the other – it has revived the interest in the geographically interdependent development of elements of production, giving rise to numerous attempts of comparative studies of the structure

and bases of live ability of TIC and economic cluster (among them we would highlight the works by Larina and Makayev 2006a, 2006b, Larina 2007, 2008). Not aiming to review a full-scale tone and meaningful nuances of the spontaneously appearing discussion (*e.g.* Baklanov 2011, Pilyasov 2013), we note only that in the conditions of market economy both clusters and TICs, in fact, co-exist in complex, ambiguous system of relationships.

The current research involves such methods as comparative analysis, historical approach, logic and economic-mathematical modeling, risk analysis, the analysis of statistic data due to the research purpose to identify the specificity of economic cluster and TIC though the prism of their risk structure and the dependence on the dynamics of external macrocycles of various origins.

Conclusion

Thus, the coastal area as the border region develops in the range of its "contact-barrier" properties, defined by both its internal factors of development and largely geopolitical and geo-economic situation. The contact-ability as one of the most important properties of coastal areas, on the one hand, gives the opportunity for the development of self-organization clustering trends, on the other hand, makes coastal area the objective of the special attention due to its high-risk level and the complex risk structure, which inevitably increases the role of state presence. We can conclude that coastal areas are not only the important sphere for the formation of the attractor of the modern economy, but also a crucial "node of connections" focused on port logistics (along with the major cities in which important logistic centers are localized).

Socio-economic (and, in particular, institutional) specificity of the coastal zones is in a special way conducive to concentration, and agglomeration and, consequently, it leads to the processes of clustering and complex formation. In this connection clustering and complexation not only support and provide the autocatalyses for each other, but also (in the situation of the coastal zone) are to become interdependent processes. In fact, in the coastal area we deal with a "cluster of complexes" and a "complex of clusters". The close contact of these sides of coastal areas' life contributes to the continual performance of the "cluster –TIC" dichotomy as the form of mutual transformational.

Acknowledgment

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Determinant of Exchange Rate with Hybrid Model: Empirical Evidence from Indonesia

Tony Seno AJI
Doctoral Program in Economics, Brawijaya University
Faculty of Economics, Surabaya State University, Indonesia
tonysenoaji@gmail.com

Munawar ISMAIL
Faculty of Economics and Business, Brawijaya University, Indonesia
munawar_sml@yahoo.com

Ghozali MASKI
Faculty of Economics and Business, Brawijaya University, Indonesia
splum77@gmail.com

Dwi Budi SANTOSO
Faculty of Economics and Business, Brawijaya University, Indonesia
dwibudisantosa@gmail.com

Abstract:

The purpose of this study is to examine the determinants of the exchange rate in Indonesia by using a hybrid model which is a combination of macroeconomic model with a model of the microstructure. Furthermore, hybrid models are estimated using an error correction model of Domowitz El-Badawi. The results show that five macro variables (money supply, interest rates, inflation, output growth, and capital flow) and a variable microstructures (inventory) has a significant influence on the determination of the exchange rate.

Introduction

Lately we have seen the value of the rupiah against the US dollar fluctuates with the trend of diminishing value. At the end of 2012 the value of the rupiah against the US dollar is still below 10,000 per dollar, but in October 2013 has been above 11,000 per dollar and in December 2014 reached 12,700 rupiahs. Even in August 2015 already over 14,000. Fluctuations in the exchange rate of rupiah per US dollar are reflected in Figure 1.

Given the impact of currency exchange rate fluctuations on the economy is huge, the efforts to maintain the stability of the rupiah exchange rate is very important. Parties are entrusted to keep the exchange rate in Indonesia is Bank Indonesia (BI), this is in accordance with the basic tasks of BI is to maintain the stability of the exchange rate good for the price of goods in general and against foreign currencies. Of course, to keep the stability of the currency exchange rate, previously had known beforehand the factors that affect the level of the rupiah.

Broadly speaking, the determination of the exchange rate can be grouped into three models, namely macroeconomic models, microstructure models and hybrid models. Meese and Rogoff (1983) asserted that unsatisfactory macroeconomic models are less satisfying to explain the determinants of the exchange rate. Frankel and Rose (1995) are same as Meese and Rogoff (1983), they showed the weak evidence that macroeconomic variables have an influence on the exchange rate, except in special conditions such as when hyperinflation. Bailliu and King (2005) also underline that models the determinants of the exchange rate based on the fundamental data of macroeconomic are less successful to explain or predict the exchange rate. The statement is very important because most of the research on the determinants of the exchange rate in Indonesia using macroeconomic models. Research on the exchange rate in Indonesia, including by Edwards and Sahminan (2008), Pratomo (2008), Cahyono (2008), Hsieh (2009), Abudalu and Elgazoli (2013), Heriqbaldi *et al.* (2014), Hsing (2015).
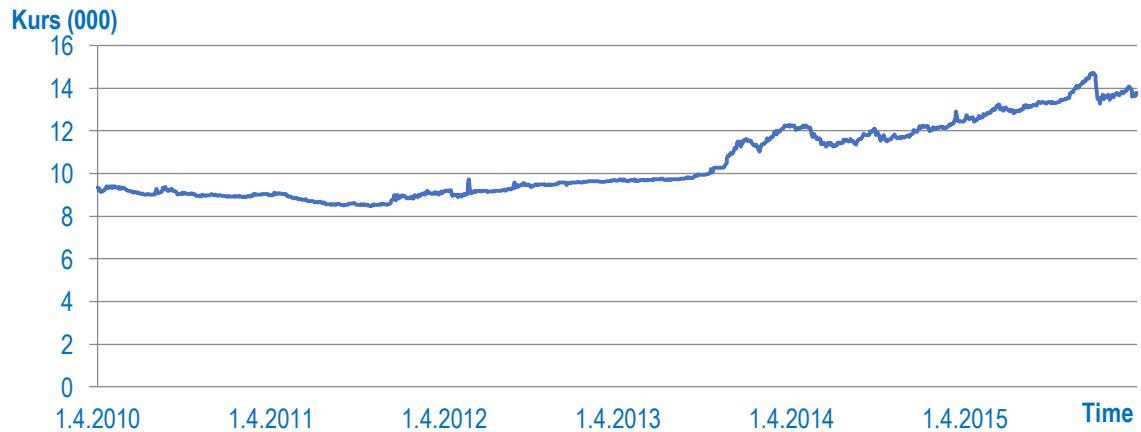
Figure 1 - The Middle Rate of Rupiah per US Dollar

Cheung *et al.* (2005) and Abhyankar *et al.* (2006) explain that a failure in projecting the exchange rate is generally caused by the models used. Most researchers generally rely on one model or the basic concepts only. Macroeconomic models give better results when in the long term, while the microstructure gives better results when used in the short term. Macroeconomic models give better results when in the long term, while the microstructure gives better results when used in the short term. Analysis of the determinants of the exchange rate in order to cover, short-term and long-term it is necessary to use a hybrid model. Evans and Lyons (2000) became a pioneer in analyzing the determinants of the exchange rate using a hybrid model. The model combines fundamental macroeconomic models with microstructures models. Payne (2003), Killeen *et al.* (2006), and Rime *et al.* (2007) have also implemented Hybrid model empirically. Their empirical studies do show better results, viewing from the abilities in explaining variations in the exchange rate. Therefore, this study will use a hybrid model.

Conclusions

The purpose of this research is to analyze a determinant of currency exchange rates Indonesia by using hybrid models. The hybrid model is combining a macroeconomic model and a microstructures model. The results of this research are valid with a high coefficient of determination.

Macroeconomic variables that affect the exchange rate is the money supply, interest rates, inflation, output growth is relative, and capital flow. The increase in Money supply relative between Indonesia and America will be responded with a rise in the exchange rate (rupiah depreciated). The increase in money supply will shift the money supply curve to the right, it causes the balance of the money market decreases, eventually the exchange rate of the rupiah depreciates. The increase in the relative interest rate in Indonesia is compared with the United States will decrease the exchange rate of the rupiah against the dollar (rupiah appreciates). Every investor certainly will expect a high return on selected investment; it is corresponding to the theory of demand assets.

The higher the relative inflation in Indonesia compared United States, the higher the exchange rate of the rupiah against the dollar (rupiah depreciated). This is corresponding to the theory of *purchasing power parity*, the point is the increasing the inflation in the country would cause the domestic currency depreciates against the partner. The increasing the output relative growth in Indonesia will have an impact on the decrease in the exchange rate of the rupiah against the dollar (dollar appreciates). The growth of output, closes to the increasing the revenue, and increasing incomes will result in an increase in the demand for money, will further encourage the currency appreciates. In addition, the growth in output will also increase optimism the market participants and will strengthen the value of the currency. The higher the capital flow, it will have an impact on the decrease of the exchange rate of the rupiah against the dollar (dollars appreciated). The purchase of domestic assets in Indonesia stock exchange by foreigners will push the rupiah currency appreciates.

Microstructures variables that affect the exchange rate is inventory. The greater inventory, the higher the exchange rate of the rupiah against the dollar (rupiah depreciated). Dealers will adjust dollar inventory in accordance with the desired target level. Dealer will increase the price of the dollar when it wants the increase in inventory.

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External Sanctions as Motivation to Develop Clusters Infrastructure in Agricultural Branches

Larisa V. POPOVA
FSBEI HE - Volgograd State Agricultural University[1], Russian Federation
ecafin@yandex.ru

Dmitry A. KOROBEYNIKOV
FSBEI HE - Volgograd State Agricultural University, Russian Federation
korobeinikov77@yandex.ru

Olga M. KOROBEYNIKOVA
FSBEI HE - Volgograd State Agricultural University, Russian Federation
omkor1977@gmail.com

Aleksey A. PANOV
FSBEI HE - Volgograd State Agricultural University, Russian Federation
panov181280@mail.ru

Abstract:

Traditionally a high level of risks and ambiguous nature of the impact of external sanctions and limitations on the Russian agriculture shift focus in the agrarian policy from the monetary regulation to structural reforms. The authors consider the cluster policy to be one of their tools. The article hypothesizes the necessity to develop infrastructural cluster nuclei in various segments of the agro-food market. The research used the methods of modeling social and economic systems, systematic, problem, institutional, and SWOT analysis. As a result, the authors come to the conclusion that the applied aspects of implementing the infrastructural approach in the cluster policy have individual peculiarities for separate agricultural branches. It is stipulated by their operational and organizational specificity. The example of one agricultural branch – vegetable production – shows principles of forming cluster establishments, reveals risks of the sanctions policy and new opportunities for the internal Russian market, and systemizes elements of the industrial structure and structural and functional modeling of the infrastructure cluster nuclei in segments of the large- and small-sized agricultural business based on the results of the strategic analysis of the environment.

Keywords: clustering, logistic centers, consumer cooperation, outsourcing agricultural technological parks.

JEL Classification: F42, O13.

Introduction

The introduction and maintenance of economic sanctions mode for the indefinite term in the relations with a number of European, other North-American countries create additional risks and opportunities for the Russian agriculture and associated production, transportation, and logistics industries. Basic geopolitical risks are related to the partial loss of the sales markets, limitations on the import of equipment and technologies, outflow of foreign investments, volatility of the national currency, and decrease in the population's purchasing power. The retaliation measures – food embargo, policy related to creating motivation for the import replacement in the agro-food branch and achievement of the food security parameters – have the opportunities of the accelerated development of the agro-industrial complex and require modernization of basic elements of the economic mechanism related to the agrarian production that complies with the current conditions.

The research hypothesizes that it is impossible for the Russian agriculture to minimize the consequences of sanctions and fully implement the preferences that include new economic realities only by using monetary measures. It is reasonable to inflow additional liquidity in financial and credit institutes and to increase the volumes of donations to the branch at the first, sharpest phase of the crisis. In the future, the need in structural reforms, including those related to creating motivation for the horizontal and vertical integration of the production and forming stable territorially grocery complexes and clusters, comes to the fore.

Taking into account the differential nature of the agriculture, it is possible to distinguish a number of basic principles of the territorial allocation of its branches and formation of the cluster establishments:

- In the production branch. The basis of the rent in the agriculture is the differential rent (Buzdalov 2004). That is why the territorial allocation and clustering of the production must take into account the natural

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[1] 26, Universitetsky Av., Volgograd, 400002, Russian Federation

differentiation of the rent forming factors (decreasing soil fertility, location in relation to sales markets and resources, decreasing efficiency of marginal inputs in the land and infrastructure), and mechanisms in their economic implementation in separate agricultural branches.

- In the infrastructure branch. Strengthening of the mutual integration and diffusion of regional agro-food markets within the national economy and in the global market space define the disputability of separate provisions of the territorial and industrial approach of the clusters theory, particularly about the dominating role of processing enterprises or large agricultural holdings integrated vertically in the agricultural clusters. In case of the infrastructure approach "the nucleus" of the cluster is thought to be the key infrastructure object that consolidates the chains of the products distribution in the relevant segment of the agro-food market, provides producers and consumers with comprehensive logistic service, performs responsible storage, manages sales, and renders other services. The formation of agricultural clusters on the basis of the infrastructure "nuclei" will contribute to the convergence of the production and turnaround areas, expansion of the sales geography, decrease in the turnaround expenses and increase in the products competitiveness. Such approach is true for agro-food markets of various levels – regional, interregional, and nationwide.

- In the regulation branch. Since sources of new risks are within political contradictions, the state gets definite social and financial obligations on minimizing the occurrence of external shocks. Herewith, the volume of measures related to direct budgetary support for national producers is limited both by narrowing opportunities of the budget, and the agricultural agreement between Russia and the World Trade Organization (WTO). On the contrary, the measures on contributing the structural transformation of the industry and developing the infrastructure are related to the green box measures. Obligations on relating the volume of the budgetary financing do not cover these measures. Consequently, the implementation of infrastructure projects based on the principles of the state and private partnership will have a positive impact not only on the development of national markets, but also it will weaken the impact of external sanctions on the national economy.

Conclusion

Thus, the results of the conducted researches prove the developed hypothesis and achievement of the set goal. The example of today's Russia proves the reasonability to form infrastructure clusters in the agrarian branch within the implementation of the policy related to overcoming external sanctions and import replacement. The conducted research considerably contributes to developing the clusters theory due to reconsidering the territorial and industrial approach and singling out infrastructure objects as promising centers of forming clusters in agricultural branches.

It is necessary to note the limitation of the research results in the form of the contradiction between the universality of the stated theoretical provisions, and principles of the development of infrastructure agrarian clusters with individual peculiarities of their applied implementation displayed through the example of the vegetables production, stipulated by operational and organizational inhomogeneity of the agrarian industry that consists of a number of agricultural branches and segments of the agro-food market.

That is why the directions of the future researches in the area of the impact of the permanently risky environment and external sanctions on the agrarian sphere, and the development of infrastructure agricultural clusters are related to the adaptation of the developed models and practical recommendations to the specificity of separate agricultural branches.

Acknowledgements

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Growing Skepticism towards Transatlantic Trade and Investment Partnership in Europe – Causes and Consequences

Tomáš DUDÁŠ
Faculty of International Relations[1]
University of Economics in Bratislava, Slovakia
tomas.dudas@euba.sk

Marianna DUDÁŠOVÁ
Faculty of International Relations
University of Economics in Bratislava, Slovakia
marianna.dudasova@euba.sk

Abstract:

The goal of this article is to analyze the development of public support for the TTIP agreement in Europe and to identify the main factors causing the growing skepticism with the treaty. The first part of the article describes the state of TTIP negotiations since their beginning in 2013 until today, while the second part focuses on the analysis of the public support for the agreement using the Eurobarometer public opinion survey. The final part of the article analyses the TTIP debate in Germany – one of the most TTIP skeptic countries in Europe. In this part, we examine the key factors driving the public debate in Germany and study the positions towards TTIP in key stakeholders' groups – general public, political parties and interest groups. The article shows that the cautious German disapproval of TTIP has evolved into a broad social opposition within a short period. Some of the stakeholders, who had initially voiced skepticism but supported the agreement in principal, have become outright opponents of the treaty. They do not see the possibility to improve some of the controversial provisions of the treaty during the negotiations process as real.

Keywords: Transatlantic Trade and Investment Partnership (TTIP), public support, skepticism, Germany.

JEL Classification: F13.

Introduction

The increasing volume of global trade in the 1990s led to an elevated interest in international cooperation in trade related issues. While global trade talks within the WTO framework collapsed in the first years of the 21st century, key players in the global economy were trying to secure free trade entry to their key markets via regional and bilateral trade agreements. Because of this trend, the number of free trade agreements registered at the WTO increased considerably after the year 2000. Despite the considerable number of trade agreements being negotiated in the global economy, the public showed limited interest in these initiatives.

After the Doha negotiations within the WTO framework remained deadlocked, the USA were seeking to strengthen ties with their strategic allies in Europe and East Asia (Gamble 2015). Thus, in a radical departure from the trade policy practiced for several decades (Hayes 2015), the USA initiated the Transatlantic Trade and Investment Partnership (TTIP) with the EU and the Trans-Pacific Partnership (TPP), which is a trade agreement with twelve Pacific Rim countries. Although there was an initial public support for these trade agreements in most countries involved, they came under increasing public scrutiny after certain political parties and environmental non-governmental organizations made an important topic from these technocratic trade agreements.

The goal of this article is to analyze the development of public support for the TTIP agreement in Europe and to identify the main factors causing the growing skepticism with the treaty. The first part of the article describes the state of TTIP negotiations since their beginning in 2013 until today, while the second part focuses on the analysis of the public support for the agreement using the Eurobarometer public opinion survey. The final part of the article analyses the TTIP debate in Germany – one of the most TTIP skeptic countries in Europe. In this part, we examine the key factors driving the public debate in Germany and study the position towards TTIP in key stakeholders' groups – general public, political parties and interest groups. Additionally, we ask whether only traditional free trade skeptics oppose TTIP or there is a general shift towards free trade and globalization skepticism across social classes, political parties and other interest groups.

Transatlantic Trade and Investment Partnership

The idea of a free trade agreement between the EU and the USA is not new; it was on the table in various forms since the early 1990s. Although trade barriers between the EU and the USA are relatively low in the WTO

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[1] Dolnozemská cesta 1/b, 852 35 Bratislava, Slovakia

global framework, there were always voices suggesting that a harmonization of regulation could lead to significant economic gains from increased trade volumes for both partners. The support for an EU-USA trade agreement increased after the collapse of the WTO Doha around of global trade negotiations with corporate lobbyists pushing for a bilateral trade agreement between the two biggest economies in the global economy. German chancellor Angela Merkel voiced her support for a trade agreement between the EU and the USA already in 2006 (Spiegel Online International 2006).

The notion of a free trade agreement between the EU and the USA started to solidify after 2007, when both partners created the Transatlantic Economic Council. This advisory board, that consists of representatives from firms operating on both sides of the Atlantic with the goal to advise the European Commission (EC) and the US government, created a high-level expert group in 2011 in order to consider negotiations of a tree trade treaty between the EU and the USA. The work of this expert group resulted in a report published on 11th February 2013 that strongly endorsed negotiations about free trade between the EU and the USA (Mayer 2015).

Events started to move quickly after the publication of the report, as President Barack Obama used his annual State of the Union speech the next day (12th February 2013) to invite the EU to start formal negotiations on a free trade agreement. On 13th February 2013, the president of the USA, the president of the European Commission and the president of the European Council made a joint announcement to the effect that the EU and the US have agreed to launch formal negotiations on the TTIP with the aim of signing an agreement in the following years. The European Commission received the green light to start talks with the USA from the EU member states in June 2013 and the first round of negotiations was held in Washington in July 2013 (European Comission 2015). Despite previous unsuccessful aspirations and some severe obstacles, there was a strong political will and huge optimism about the mutual economic benefits (Mayer 2015).

TTIP belongs to a new type of trade agreements that go beyond the abolition of tariffs and non-tariff barriers between the participating parties. The proposed agreement covers a wide range of issues – such as market access for good and services, regulatory cooperation in specific sectors, public procurement or investor protection. TTIP will not include financial services or air transportation as these sectors are subject to a different kind of policies (Grancay and Szikorova 2014).

The wide range of topics makes negotiations complicated, as some of the issues are very sensitive. The agreement is divided into 24 chapters and a joint EU-US working group is negotiating every chapter. At first, position papers are exchanged, introducing each side's aims and ambitions. These are followed by textual proposals from each side, accompanied by each side's "initial offer". The negotiations and draft documents can evolve through various stages of their development. When both sides are ready, a consolidated text is prepared, with remaining differences for discussion expressed in square brackets. These texts are then provisionally closed as a working consensus is reached in each topic.

The TTIP negotiations are organized in regular rounds that alternately take place in Brussels and in the USA. Until today, 14 rounds of negotiations were held. The last round took place in July 2016 in Brussels. The nature of the negotiations is very secretive, as they are held behind closed doors and all participants must sign non-disclosure agreements. Thus, the public receives only sparse information from the negotiations. However, growing public pressure from political parties and non-governmental organizations in Europe forced the European Commission to improve the transparency of the negotiations and to release more comprehensive information.

Conclusion

Public opposition plays a key role in the political controversy over TTIP. In this article, we have examined the many facets of the German opposition against the TTIP, analyzing the positions of the general public, of key political actors as well as other interest groups.

We have shown that the cautious German disapproval of TTIP has evolved into a broad social opposition within a short period of time. The public debate dynamics can be characterized by several trends. Firstly, the opponents of TTIP succeeded in converting the initially low-interest theme into a highly salient issue. Secondly, as the public becomes better informed about the negotiations, it also becomes more skeptical towards TTIP. Thirdly, the focus of the debate has shifted from technocratic issues towards geopolitical, geostrategic or even philosophical considerations. As a result, TTIP is often linked to issues, which are not explicitly connected to the agreement. Finally, some of the stakeholders who had initially voiced skepticism but supported the agreement in principal, have become outright opponents of the treaty. They do not see the possibility to improve some of the controversial provisions of the treaty during the negotiations process as real. This applies to trade unions and increasingly also for Social Democrats.

We have also shown that the opposition towards TTIP is not confined to specific socio-economic groups or ideological alignments. The (lower) middle class in Germany is even more skeptical towards TTIP than the working class, which is usually seen as standing on the losers' side of such trade agreements. Although people positioning themselves as left are over proportionally against the agreement from the onset, people positioning themselves as right are rapidly turning into TTIP-skeptics as well, especially in Eastern Germany.

With regard to the position of German political parties, we can conclude that they have predominantly decided to reflect the public opinion instead of shaping it. The only party in the federal parliament still supporting the treaty is CDU/CSU, where Chancellor Merkel has managed to silence party-internal criticism so far. In her aim to complete the negotiations by the end of 2016, Chancellor Merkel can only rely on her last ally – The Federation of German Industries. However, they face a strong and growing opposition from the NGOs and trade unions. The still ambivalent position of Merkel´s coalition partner – the Social Democrats – will probably play a key role in the ratification process. With SPD adopting an increasingly critical view of free trade in general and calling for new, alternative approaches to trade policies, selling free trade agreements can become an unsurmountable challenge. However, with so much effort and political capital invested in the negotiation process, a complete cancelling would be seen as a major backlash to the already fraught transatlantic relations. On the other hand, pushing the TTIP agenda against the public will could have severe consequences on the democratic legitimacy of the decision-making process in the EU.

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Solutions to the Problem of Loan Default in Retail Segment

I. A. DUBORKINA
Russian State University of Tourism and Service, Cherkizovo, Russia
duborkina2012@yandex.ru

V.A. DANILOVA
Russian State University of Tourism and Service, Cherkizovo, Russia
nika561@rambler.ru

V.M. ZAYERNYUK
Russian State Geological Prospecting University
named after Sergo Ordzhonikidze, Moscow, Russia
zvm4651@mail.ru

V.E. GLADKOVA
Russian Academy of Entrepreneurship, Moscow, Russia
gladkovave@mail.ru

O.M. CHIKOVA
Ministry of Economic Development of the Russian Federation
Joint Department for Macroeconomic Forecasting, Moscow, Russia
omchikova@yandex.ru

Abstract:

Economic importance of solving the problem of reducing the level of arrears on retail loans, contributing to development of commercial banks and establishment of national banking system, determined the basic objective and relevance of the research. The article analyses the dynamics of volume and annual rate of increase in arrears on loans to households at the interim quarterly dates of 2010-2015, examines the structure of loan portfolios in arrears of the retail sector and conducts comparison with the same portfolio of non-financial entities, identifies the main causes of household debt to banks. We have concluded that the banks need to focus on developing their own tools and technologies of debt recovering related to early detection of bad debts in order to take measures to prevent bad debts, which is possible when investing money in their own analytical and technological tools. We proposed an approach to the segmentation of debts and factors that can be used as indicators in the process of maintenance and servicing of loan portfolio.

Keywords: arrears, debt collection tools, loan portfolio, non-financial entities, retail loans.

JEL Classification: M31, M37, M21, M14, L81.

Introduction

In the context of the general economic downturn and the decline in consumer demand, credit responsibility of households is deteriorating simultaneously. This is primarily due to the deteriorating of economic condition in Russia – a growing number of Russian citizens have overdue loans. And whereas until now, analysts might have said that the reasons are in a low level of households' literacy, today it is obvious that economic factors and causes come to the fore.

In various years, domestic and foreign scientists were engaged in the study of the problem of default loans in the retail segment. Conceptual problems of sanctions are presented in the works of D'Alessio and Lezzi (2013), Dermine and Neto de Corvalho (2004), Frost (2006) and other scientists. Among Russian authors' recent works on this subjects we can highlight those by Belousov (2014), Bobyl (2014), Vaysbek (2014), Kuzina (2013), Mozzhukhina (2013) and others. As analysis showed, the majority of researchers examined the determination of the possible impact of sanctions on the development of sectors of national economies. At the same time, the analysis of current studies demonstrated the need for further research of the considered direction in banking retail, and especially its economic trend, which determined the orientation of this study.

Conclusion

Thus, in the current financial and economic situation, banks need to focus on developing their own tools and technologies of collection aimed at identifying the problem of debt and prevent arrears at an early stage. And this is possible only in case of investing funds of bank in analytical and technological tools which allow accompanying and servicing loan portfolios, while maintaining the level of quality.

In the context of the announced by US economic war against Russia we will have in mobilization order to look for new management solutions to the practice of consumer credit, particularly in dealing with arrears. In this context, it seems appropriate to introduce additional consumer credit control measures through a balanced approach to the optimization of the risk factors existing now and reserve requirements, which could contribute to strengthening and enhancing the stability of the banking system. After all, the stability of the national banking financial and credit system is beneficial to everyone, and it is can be considered as a key factor for sustainable economic growth.

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Nexus between Public Health Expenditure and Income: Empirical Evidence from Indian States

Deepak Kumar BEHERA
Department of Humanities and Social Sciences
Indian Institute of Technology Madras, Tamil Nadu, India
deepakkumar.behera59@gmail.com

Umakant DASH
Department of Humanities and Social Sciences
Indian Institute of Technology Madras, Tamil Nadu, India
dash@iitm.ac.in

Abstract

Using the public (government) health expenditure data of sixteen states in India from 1980 to 2013, the paper examines the long-run relationship between an increase in public health expenditure and income. We use real GSDP and real per capita GSDP as proxy for income. We apply Westerlund (2007) error correction based cointegration test for estimating the long-run relationship and panel dynamic OLS (DOLS) method for estimating the long-run coefficient of health expenditure. The empirical result shows that public health expenditure and income is cointegrated in the long-run. There is a positive and significant impact of income on growth of public health expenditure whereas the elasticity of public health expenditure is less than one in the long- run. It has also been found that there is a bidirectional causality between income and public health expenditure in the short-run while being unidirectional in the long-run. These research findings would serve as effective policy instruments aiming at achieving universal health coverage by generating more additional resources for health sector and minimizing the state level disparity in the growth of public health expenditure in India

Keywords: public health expenditure, indian states, panel cointegration, income.

JEL Classification: H51, C22, E01.

Introduction

There is a growing literature on the nexus between public health expenditure and income ever since the publications of Kleiman (1974) and Newhouse (1977), which can be broadly grouped into three different strands of inquiry in the health economics literature. The first type of literature examines the elasticity of public health expenditure with respect to income in the short as well as in the long-run. The literature such as Sen (2005), Wang (2009), Baltagi and Francesco (2010), Cantarero and Lago Penas (2010), Farag *et al.* (2012), Fan and Savedoff (2014), and Reeves *et al.* (2015) deal with short-run estimator of health expenditure studies. On the other hand, literature such as Narayan *et al.* (2010), Khan *et al.* (2015), Wang (2011), Tamakoshi and Shigeyuki (2014) deals with the long-run estimators of health expenditure. These studies find per capita income to be one of the most important determinant of public health expenditure. The economic interpretation of these findings is that, the elasticity of public health expenditure with respect to income is equal to or greater than one indicating that health care is a luxury rather than a necessity. When elasticity is less than one, health care is closer to being necessity and hence needs more government intervention. Culyer (1988) and Di Matteo (2003) argue that luxury or necessity has an implication on the link between public health expenditure and the well-being of the citizens. The second type of literature (Gerdtham and Mickael 2000, Herwartz and Bernd 2003, MacDonald and Sandra 2002, McCoskey and Thomas 1988, Wang 2011, Dreger and Hans 2005, Tamakoshi and Shigeyuki 2015) discusses the evidence for a long-run (cointegrating) relationship between public health expenditure and income. The third type of literature (Devlin and Paul 2001, Erdil and Yetkiner 2009, Hartwig 2010, Wang 2011, Amiri and Venetelou 2012) examines the causality between public health expenditure and income in the short as well as long-run. There are two types of causality between public health expenditure and income; it could be either unidirectional (that is, health expenditure as a function of income or income as function of health expenditure) or bidirectional (that is, both health expenditure and income causing each other). The direction of causality is important, as the health policy implications are vastly different for each possible direction. The unidirectional causality from public health expenditure to income (reverse causality) indicates that the health expenditure has both direct and indirect effects on income growth (Hartwig 2010). The theoretical argument is that health expenditure can be considered as an investment in human capital and leads to healthier workforce. Hence as a factor of production, an increase in the efficiency helps augmenting the economic growth (Devlin and Paul 2001). On the other hand, the unidirectional causality from economic growth to growth of health expenditure is a general phenomenon in almost all countries.

But the implication of increasing health expenditure is that, it reflects the intention of economic development, and exhibits the improvement in the quality of life of people (Wang 2011). The presence of bidirectional causality between public health expenditure and income implies that public health expenditure and income growth are jointly affected by shocks and conservative health policies may have an adverse effect on income and vice-versa (Amiri and Venetelou 2012). The argument of bidirectional causal relationship would be that public health expenditure growth can stimulate income and vice versa. Also, increased public health expenditure is both a cause and consequence of increased income, and lack of public health expenditure may pose a restraint on the economic growth in the long-run. The bidirectional causality shows the confirmation of both growth-led health and health-led growth hypothesis.

Contrary to international evidences, there is not much work on the nexus between public health expenditure and income. Bhat and Nishant (2006), Rahman (2008) and Hooda (2015) examined the relationship between income and public health expenditure by taking major states of India. The aim of these studies was to identify major drivers of health expenditure in India. The empirical result shows that regional income (per capita GSDP) is one of the statistically significant driver/factor determining the level of regional health expenditure. These studies use panel random effect regression model to estimate the short-run impact of income on the growth of public health expenditure. The result shows that the value of income elasticity of public health expenditure varies in the range of 0.47-0.68%, which indicates that health care is a necessity good among the Indian states. These studies have not examined the long-run impact of regional income growth on the public health expenditure among the states of India. To the best of our knowledge, no study has been undertaken which examines the short- run as well as the long-run causal relationship between public health expenditure and income among the states of India. Some exceptions are Pradhan and Bagchi (2012) and Khandelwal (2015), who examined the causal relationship between income and public health expenditure in India. Pradhan and Bagchi (2012) found a bidirectional causality between public health expenditure and income both in the short and the long-run. Khandelwal (2015) found only unidirectional causality running from income to public health expenditure in both short as well as long-run.

The contribution of this paper may be underlined as follows: First, the empirical techniques used are more efficient than the techniques used in earlier studies. The past studies used short-run estimator of public health expenditure, applying panel random effect model, which provides the elasticity of public health expenditure with respect to income in the short-run. For determining the long-run impact of income on public health expenditure, we use panel dynamic ordinary least square (DOLS) estimation technique. Apart from that, we apply Westerlund (2007) cointegration test for the long-run relationship between public health expenditure and income. Second, 'include' only medical and public health expenditure[1] which is state specific and 'exclude' all the central assistance in the form of family planning as well as disease control programme. Third, we convert all the data in real value as well as real value adjusted to the population figure at constant 2004-05 base price because the variable is well adjusted to the changes in price level and population. The previous studies had used current prices (nominal value) and some of them have used 1993-94 constant prices.

Based on the background information mentioned above, the objective of the paper is to examine the long-run relationship between public health expenditure and income using panel cointegration, panel long-run estimator and panel Granger causality test for sixteen major states of India over the period 1980-2013. The rest of the paper is organized as follows. Section 2 represents the growth of public health expenditure over the period of study among the selected major states of India; Section 3 discusses the data and methodology used; Section 4 focuses the empirical findings; and Section 5 offers the conclusion.

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[1] The provision of health care is mainly the responsibility of the state government and ninety percent of the total health expenditure comes from the state budget. The center's grant is mainly meant for certain centrally sponsored disease control programme and family planning programmes of the states. Therefore, we have focused only on the state's budgetary expenditure on public health and medical expenditure.

Conclusion

The objective of this paper was to examine the long-run relationship between public health expenditure and income, and to investigate the direction of Granger causality between these two variables for sixteen Indian states using the panel data during 1980-2013. The motivation of our study was based on the argument that whether the budgetary space of the state governments is enough for financing health care for achieving universal health coverage. We took growth of real income/real per capita income as the proxy for budgetary space of the state government in order to spend on medical and public health care expenditure over the time period. The result confirms that health is a necessary rather than a luxury good in India as the elasticity of income with respect to public health expenditure is less than one in the long-run regression estimation. The result suggests significant long-run relationships between public health expenditure and income in Indian states. Further, our result indicates the presence of bidirectional causality between public health expenditure and income in the short-run. In the long-run, however, the causality is unidirectional running from public health expenditure to income. The findings of the present paper have important policy implications for the state governments. First, the positive and significant relationship between GSDP and PHE in both short-run as well as long-run implies PHE is vulnerable to any economic shock. Further, since PHE causes GSDP both in the short as well as in the long-run, it can be inferred that there is a necessity of other sources of funding for strengthening the budgetary space for health. Hence there is need for central allocation not only in the health sector but also in other social sectors because states cannot maintain all health sector demands on its own. The state government should also formulate policies which can strengthen health care financing mechanism thereby mobilizing more revenues for the health sector.

The paper suffers from a few limitations primarily due to the unavailability of relevant data and the choice of methods for empirical analysis, and therefore results should be interpreted with great caution. First, it has not considered some important variables like non-income determinants of health expenditure such as the age structure of the population and literacy rate due to non-availability of data. Secondly, it did not include the central allocation for health which might have given a better insight to the analysis. Thirdly, it has not tried any structural break test to examine whether any policy change during the time period 1980-2013 has had any effect on the public health expenditure. Finally, it has taken into account only income, and ignored the taxation capacity of the state government that induces growth in public health expenditure.

Acknowledgments

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Allocation of Management Zones of Territories of Innovative Development: Methodical Basis

Anna MALTSEVA
Lurye Scientific and Methodological Center for Higher School Innovative Activity
Tver State University, Tver, Russian Federation
80179@list.ru

Aleksandra GRIDCHINA
Moscow Polytechnic University, Moscow, Russian Federation
gav70@bk.ru

Abstract:

The authors suggest a special methodology of management of territories of innovative development (TID), based on the definition of the positions of the territory on the key components of the "values of social and economic indicators - sustainability - risks." The current state of the individual functions of the TID, by means of identifying with a point in the three-dimensional space, is characterized by a specific management zone, which is peculiar to the most appropriate measures in the framework of the TID's management system.

Keywords: territory of innovative development, management, functional approach, three-dimensional model, management zone, alignment matrix.

JEL Classification: O32.

Introduction

Currently the extension of theoretical and methodological bases of creation and management of the development of territories with a high concentration of scientific and innovative potential is gains the particularly importance in connection with the initiative for the development of the Strategy of scientific and technological development of the Russian Federation - 2035.

In the draft of the document the support of creation for at least 4-5 large modern globally competitive regions in Russia occupying a leading position in the field of research and development in the world is included with the number of activities aimed at institutional development in science, technology and innovation (The Strategy of scientific and technological development of the Russian Federation- 2035).

Geographical location and the level of intensity of use of scientific and technological potential in the Russian Federation are extremely heterogeneous (Territorial organization of research and development), regions vary in innovative activity considerably (The rating of innovation activity of regions by National Association of Innovations and Information Technologies development (NAIITD)).

According to the developers of the Strategy, the concept of cluster development of territories is getting very popular today and should become the basis for faster growth of the global competitiveness of the territories. Meanwhile the regions which were currently selected for the pilot projects are already has all the key features of territories of innovative development and some of them, for example Tomsk region, were putting into practice the concept of TID in the last 10-15 years in its boundaries.

It is obvious that in order to achieve the significant competitive advantages of the territory the consistent steps and the long-term innovative strategy are necessary. Such strategy is targeted ultimately to achieve a leading position in the country and in the world in terms of innovative development.

Effectiveness in innovation, by definition, associated with scientific, technological and innovative potential, i.e., its concentration in the boundaries of certain territories is an important factor of development. Following the environmental concepts of innovative development (Lepsky 2010), there is the fact that it is the increased concentration of innovative potential in the certain points of the territorial space is able, thanks to its "critical mass", to create a much larger innovative effect due to the synergies.

In this regard, it is the conceptual basis of creation of TID and its directional sustainable growth that are the theoretical basis for the development of those regions, which in the long view are aimed to achieve a leading position in innovation. By creating the separate points of innovative growth in its boundaries - TID, they can count on the involvement in future into the innovative activity municipalities, regions and etc. The single innovative ecosystem of a territory can be formed by combining such municipalities, regions into a cluster.

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The Impact of Value Added Taxe Rates on the Economy of the European Union Countries using Data Mining Approach

Alena ANDREJOVSKÁ
Faculty of Economics, Technical University of Košice, Slovakia
alena.andrejovska@tuke.sk

Slavomíra MARTINKOVÁ
Faculty of Economics, Technical University of Košice, Slovakia
slavomira.martinkova@tuke.sk

Abstract:

A value-added tax (VAT) is currently a key element of tax system and an important source of revenue of EU Member States' budgets. VAT revenues in 2014 represented 7.75% of GDP and 21% of total tax revenues. The highest proportion was in Croatia, 34.1%, and the lowest in Italy, 13.8%. The present contribution deals with the problem of impact of changes in the VAT rate on the economy of the EU countries. Methodology Knowledge Discovery in Databases and within it the technology of decision trees and webs graph let us handle analysis of the relationship between the change in the VAT rates and selected macroeconomic indicators, namely: gross domestic product (GDP), household consumption expenditures, exports of goods and services and unemployment rate. The subjects of review were the EU countries in the period 2004 - 2015. Modelling results indicated, what applies in general, that the reduction in GDP will change the value-added tax thereby it confirmed the validity of the relationship between the changed rate and economic growth.

Keywords: economic growth, gross domestic product, value added tax rate, macroeconomic indicators, decision tree.

JEL Classification: H21, H25.

Introduction

The rise of value added tax represents the most significant developments in the area of tax policy and administration of the last decades. The reason for its introduction was the need for tax revenues through improved tax administration and compliance with the tax laws (Keen and Lockwood 2006). Today's form of value added tax first appeared in France, in 1954, and covered only large businesses. With the passage of time, the VAT related to all sectors in the country (Economy Watch 2010).

In the next decades VAT expanded to the other countries in Western Europe. Italy, as the last original EC member state, introduced VAT in the 70's of the 20th century. Ireland, Great Britain, Spain and other EC member states introduced VAT at the end of the 20th century. Croatia with Slovenia introduced this tax as the last countries from the European Union. Another example is Denmark, which introduced the tax even before the entry into the community (European Commission 2016). Sixth Council Directive 77/388/EEC of 17 May 1977 on the harmonization of the laws of the Member States relating to turnover taxes led to a uniform coverage of VAT in the European Union. Council Directive 2006/112/EC of 1 January 2007 on the common system of the value-added tax replaced the Sixth Council Directive and has included legislation on the common system of VAT nowadays.

The present contribution deals with the effect of a change in VAT rate on the economy of the EU countries in the period 2004 – 2015. To fulfil the objectives, the contribution is divided into five main parts. The rest of the paper is organized as follows: content of the first part is the literature review of the impact of changes in VAT rates, the materials and methods is discussed in the second part, development of changes in VAT rates in the EU is given in the third part, fourth part provides the results of modelling classifiers when changing VAT rates. The last part is devoted to a conclusion.

Conclusion

Determining the impact of changes in the VAT rate on the country's economy is a very complex issue, which is influenced by numerous factors, and as well as the results of our analysis suggests it is overconfident to expect clear and visible consequences as the results of the tax changes. Modeling the impact of changes in the VAT rate on four selected macroeconomic indicators by using the methodology of Knowledge Discovery in Databases, particularly with its three decision trees and one direct cobweb diagram, we investigated whether the relationship between selected variables and the tax rate is affected only by the fact that the rate was changing, or even an individual height of the rates. Because of the small number of recorded cases that occurred changes in the rate, we had to use multiple values based on which we came to the robustness of the models.

The change in the GDP between periods t+1 and t, and change in exports in that same period belonged among our most important classifiers. Other important attributes were the final consumption expenditure of households and the unemployment rate. Results from the modeling indicated what applies in general, that the reduction in GDP will result in a change of VAT. Together at the same time there will be an increase in export. However, if the government does not proceed to the change in the VAT rate, the country's economy is expanding because the GDP, consumption and exports grew year on year and unemployment rate was gradually decreasing. The model also pointed out that the most common change in the rate was an increase by 1% and the second one was an increase by 2%. Also, the analysis of development within the monitored period confirmed that the rates of VAT in the countries had a tendency to increase and even by more percent.

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On the State of the Mortgage Market in the Russian Federation in the Conditions of Global Economic Crisis

Oksana V. SAVCHINA
Department of Finance and Credit
Peoples' Friendship University of Russia, Moscow, Russia

Olga V. SAVCHINA
Department of Accounting, Auditing and Statistics
Peoples' Friendship University of Russia, Moscow, Russia
savchina_ovl@pfur.ru

Alexander L. BOBKOV
Department of Industrial Economics
Plekhanov Russian University of Economics, Moscow, Russia
a.l.bobkov@gmail.com

Angelina Z. SHARASHIDZE
Economic Faculty
Peoples' Friendship University of Russia, Moscow, Russia
angelusika@mail.ru

Abstract

The study is directed to the one of the main socio-economic objectives of the state – the development of mortgage lending and increasing the affordability of housing in the real estate market.

The article assesses the status and prospects of development of the mortgage lending market of the Russian Federation in the crisis period on the basis of the analysis of dynamics of the following main factors: the amount and structure of mortgage loans, the weighted average lending period, the weighted average interest rate on ruble and foreign currency loans in the period from 2007 to 2015. Particular attention is paid to the factors affecting the volume of mortgage loans during the recession. Based on official statistics, the state of the mortgage market is analyzed, the basic tendencies of its development during the reporting period of crisis, and the factors that influenced the dynamics of the number and structure of mortgage loans are identified. It was found that the state program to support the real estate market in the crisis was effective and gave impetus to the growth of the missing volumes of mortgage loans.

Keywords: mortgage, mortgage lending market, credit, arrears, average interest rate, Russia.

JEL Classifications: E22, E43, E5, G21, G28.

Introduction

Features of development and functioning of mortgage lending, its importance is the subject of ongoing research, and are considered both in terms of the economic component, as well as from the perspective of the mechanism of formation of financial resources and its sources. Issues on the formation, development, and regulation of mortgage lending market are considered by a number of economists. Among the foreign scientists who have made a significant contribution to the study and development of certain theoretical aspects of mortgage lending and the content of its mechanism are Clark (2016), Cohen and Renuart (2012), Dobson and Polfreman (2004), Dolan (1996), Dornbusch and Fischer (1997), Elizabeth (2016), Fleming (2014), Guttentag (2010), McElroy (2012), Myers and Shannon (2015), Ross and Yinger (2002), Tyson and Brown (2012), Tyson and Griswold (2015).

Theories of mortgage lending are further elaborated by a number of Russian scientists (*e.g.* see Goremykin 2007, Kudryavtsev and Kudryavtseva 1998, Goremykin 2007, Pavlova 2004). Special attention to the issues on improving the mechanism of mortgage lending in Russia is paid by Lunina (2010). Statistical studies on mortgage lending are held by Tsypina (2013).

Tsypina (2013) established a system of statistical indicators characterizing mortgage lending. Researcher has developed a methodology of statistical research of mortgage lending, which includes an analysis of the dynamics of indicators of mortgage lending, identification and measurement of the factors influencing the volume of mortgage lending in the context of the Russian regions. The study has resulted in a multi-dimensional grouping of regions into homogenous groups of subjects by the level of mortgage lending. Based on the methods of cluster analysis the author has statistically proven the unevenness of development of the mortgage-lending market in Russia.

Lavrushin (2014), has given a particular emphasis on the currency reform, the denomination and devaluation, in the context of the worsening of the economic situation of the country. Paper suggests that large non-payments between enterprises significantly inhibit exit from the economic crisis. In this regard, the authors set out to reveal in more detail the causes and consequences of payment crisis, the direction of its mitigation – measures to strengthen the monetary unit's purchasing power.

Razumova (2009) focuses on analyzing international best practices in the organization of the mortgage landing systems, while considering its applicability for the Russian banking sector. A special attention is paid to the adaptation of the mechanisms that have proven effective in the world. He undertakes a detailed analysis of all the necessary elements of the mortgage lending system, without which it is impossible to make mortgage transactions an attractive field of activity for commercial banks, and mortgage loans available to the majority of Russian citizens.

Dovdienko and Chernyak (2005) give a particular emphasis on the schemes and programs of financing the acquisition of property, the mechanism of mortgage-investment analysis. Scholars determine the organizational and legal bases of mortgage lending in the Russian Federation, as well as the development of the national housing market. The study provides a generalized Russian and foreign practice on formation of a mortgage lending system, and the methods for socio-economic assessment of real estate in the regional housing markets.

Kosareva (2007) pays a special attention to long-term mortgage lending as the main element of the housing finance system. The study contains current data on the changes in legislation of the Russian mortgage market that form the conditions to increase the scope of mortgage lending as well as the prospects of its development.

The banking sector and the Russian economy in the period from 2007 to 2015 underwent significant changes. The year 2007 has turned out to be very successful for the banking sector (Federal Law 1990). The banking sector showed stable development in relation to negative external influences. The positive dynamics of all the main indicators of the banking sector accompanied by the growth of its relation to GDP marked a continuing increase in the importance of the banking sector in the Russian economy.

The global financial crisis of 2008-2009 has had a significant impact on the Russian economy and the banking sector (FRS 2016). The internal and external demand has reduced, as a result, reduced the production in some sectors of the economy and the unemployment increased. In 2009, the price conjuncture has deteriorated on world commodity markets for Russian exporters, which, in turn, had a negative impact on foreign trade of the country. Condition of the banking sector and the Russian economy in the period from 2010 to 2013 has stabilized. However, the years 2014-2015 were difficult for the Russian economy due to the imposition of economic sanctions against the country, which contributed to the fall of the national currency, reduction of oil prices, stagnation in the real economy, limiting the ability of Russian banks to borrow abroad. It should be noted a massive recall of licenses of commercial banks, which significantly undermined the confidence of customers to the credit institutions.

The mortgage in Russia is in a stage of development and currently does not solve the main housing problems of the population. This is due to several reasons, in particular, among them are: high inflation and interest rates on loans, low income and solvency of the citizens, as well as the instability of the economic situation in general. It should be noted that the mortgage market is part of the economic system, thus, it is not without public support.

In 2014, the mortgage market went into decline. However, in 2015 due to government support measures, it continued its development.

Conclusion

The research on the system of the Russian mortgage lending has revealed the factors, which influence the dynamics of the number and structure of mortgage loans in the period 2007-2015. They are the increase in the number of the unemployed, the reduction of production volume, decrease in the share of exports in total foreign trade, high key rate of the Bank of Russia at the beginning of the period, the decline in mortgage lending, and the amount of the decline in oil prices, the decline the national currency, and limited access to credit from abroad. As a result of the global financial crisis, there was a reduction in mortgage loans by 2.7 times in terms of quantity. The average loan size and prices in the housing market have also decreased. Mortgage loans in foreign currency fell to 6.6% due to the macroeconomic situation in the country and the fall of the ruble in late 2008 – the beginning of 2009, which significantly increased the cost of foreign currency debt servicing for borrowers and the risk of defaults on foreign currency loans for banks.

The participation of the state in the credit relationship is done in the form of co-financing via subsidies instrument. The subsidy is used by citizens to buy property, and its function is to increase the solvency of the population as potential borrowers of the residential mortgage loan. The stimulating of the real estate market by means of state support I initiated in order to increase the availability of mortgage lending to the public. State program to support the real estate market was effective and gave impetus to the growth of the missing volumes of mortgage loans. The macroeconomic situation in Russia, in the context of financial crisis, reinforces the importance of long-term mortgage lending as a complex system with the direct impact of the state.

As a result of the analysis of the weighted averages, the interest rate on foreign currency is 12.7% and 14.3% on ruble loans, which is a record in itself and the first time in the Russian residential real estate market due to the global financial crisis. It should be noted that the term of crediting on foreign currency loans and foreign currency rate declined due to several factors: low interest rates on loans with a shorter-term, the growth in exchange rate of the dollar and the euro against the ruble. As a result, the demand for foreign currency loans have stopped to be attractive for the borrowers because of the high risk, whereas loans in rubles remained relatively stable. Russian mortgage lending market will continue to function. However, the mortgage is not included in the list of the most profitable and sought-after product offerings for banks.

The key rate is not the only locomotive of the mortgage market. The level of demand affects the purchasing power of citizens, which decreased significantly in a crisis. The fall of the national currency led to an increase in actual inflation. Prices are rising and wages remain practically at the same level, and this, in turn, does not improve the well-being of citizens. Thus, the sharp growth of the mortgage market demand should not be expected, even if the interest rates on loans will be quite acceptable.

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The Interplay of European Countries' Tax Systems: A Spatial Autocorrelation and Cluster Analysis

Marian REIFF
Faculty of Economic Informatics
University of Economics in Bratislava, Slovakia
marian.reiff@euba.sk

Andrea FURKOVÁ
Faculty of Economic Informatics
University of Economics in Bratislava, Slovakia
andrea.furkova@euba.sk

Volodymyr TOKAR
Faculty of International Economics and Management
Kyiv National Economic University named after Vadym Hetman, Ukraine
tokarww@ukr.net

Abstract:

The main aim of this article is to analyse the differences of tax systems across European countries based on 2015 data. The analysis was conducted by means of the application of five diagnostic variables describing tax systems' corporate, individual and indirect tax rates, and employee social security and employer social security rates.

The research was conducted using the hierarchical clustering method to identify a homogenous group of countries, and Exploratory Spatial Data Analysis (ESDA) in order to identify existing spatial interaction. Applying cluster analysis has enabled us to identify seven homogenous clusters with significantly different tax rates, and by applying ESDA, we have identified hot spot and cold spot clusters for diagnostic variables in corporate and individual income tax rates.

Keywords: clusters analysis, Ward's method, exploratory spatial data analysis, spatial autocorrelation.

JEL Classification: C21, C38, H29.

Introduction

Tax competition has been widely adopted by European countries over the past decades, but European integration stimulates tax convergence in order to boost international cooperation and fair play. These two opposing tendencies, combined together, form the fiscal environment for natural and legal persons throughout Europe. This research aims at determining which tendency prevails and shapes the future trend of economic development and cooperation across Europe; in addition, tax systems are viewed through the lenses of possible interplay and co-influence between them.

The article is structured into five sections: the first part is the introduction, the second part sheds light on different aspects of European tax systems as they are presented in current scientific literature. The methodology used is explained in detail in the third section. The fourth part presents the hierarchical clustering method to identify homogenous groups of countries and Exploratory Spatial Data Analysis (ESDA) is deployed to identify existing spatial interactions between European countries. The last section comprises the conclusions of the entire article.

Conclusion

In this paper the problem of tax rate clustering was considered. The first part of our empirical analysis was based on the hierarchical cluster method which enabled us to distinguish seven groups (clusters) of countries having similar tax systems. The first group comprises Belgium, Finland, France, Italy, Portugal, Spain, and Sweden. The second group consists of Austria, Croatia, Germany, Greece, Luxembourg, Netherlands, Norway, Poland, and Slovenia. The third cluster is formed by Albania, Bulgaria, Hungary, Latvia, Moldova, Romania, and Serbia. The fourth group is made up of Belarus, Czech Republic, Estonia, Lithuania, Slovakia, and Ukraine. The fifth group is composed of Denmark, Ireland, United Kingdom, and Switzerland. The sixth group is represented only by Liechtenstein and Gibraltar (as tax havens). The last cluster embraces the former Yugoslavian republics: Bosnia and Herzegovina, Macedonia, and Montenegro. The measure of similarity levels are as follows: Cluster 1 is 47.98, Cluster 2 is 60.45, Cluster 3 is 64.15, Cluster 4 is 64.75, Cluster 5 is 65.53, Cluster 6 is 74.20 and Cluster 7 is 80.98.

Next, we carried out a spatial analysis; however, in contrast to the previous hierarchical cluster method, we dealt with each tax rate separately. Our spatial analysis of each class of tax rate started with mapping its distribution across European states using a box map. Countries with high values of tax rates are considered to be a statistically significant hot spot and should have a high value of tax rates and also be surrounded by other countries with high values. Conversely, a cold spot is a place where low values cluster together. This empirical procedure identified significant clusters for corporate tax rates and individual tax rates. Analysing corporate tax rates, we discovered a hot spot cluster comprising six countries, namely, Belgium, France, Germany, Luxembourg, Netherlands, and Switzerland. On the other hand, we observed a cold spot cluster including the following five countries: Bosnia and Herzegovina, Greece, Serbia, Montenegro and Romania. As for individual income tax rates, we also discovered that high and low values tend to cluster in the hot spot cluster consists of Belgium, Finland, France, Germany, Italy, Luxembourg, Norway, and Sweden while individual taxpayers with low tax rates are clustered in Albania, Greece, Latvia, Romania, Serbia, and Ukraine. Following the results of the first and second part of our analysis, the hypothesis of tax rate clustering can be considered to have been verified. If we look more closely at the identified clusters from both parts of the analysis, we can notice the differences in the structure of the clusters. The clusters from the first part of our analysis consist of "Western" countries, as well as less developed, or post-communist, countries. But once only particular tax rates are under consideration, the clusters exclusively include "Western" countries, or less developed (or post-communist) countries.

The major contribution of this paper could be summarized as follows: our empirical evidence has highlighted tax rate clustering and spatial interactions among European states. These facts should be taken into account in the decision-making processes of the EU authorities and individual policy creators in order to manage the economic units more effectively. The empirical evidence dealing with tax rate clustering, with respect to the geographical proximity of countries, is not part of the mainstream analyses of tax problems. From this point of view, this paper can be an asset in the field tax problems.

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Economic Growth in Modern Russia: Problems and Prospects in the Context of Neo-Industrial Paradigm

Ludmila Aleksandrovna KORMISHKINA
Ogarev Mordovia State University, Saransk, Russia
econtheor@mail.ru

Evgenii Danilovich KORMISHKIN
Ogarev Mordovia State University, Saransk, Russia

Dmitrii Aleksandrovich KOLOSKOV
Ogarev Mordovia State University, Saransk, Russia
mr.dmitryaleksandrovich@mail.ru

Abstract

The article reveals the relationship of the autonomous recession of the Russian economy with an established model of economic growth based on raw material export; the system flaws, distortions and contradictions of the Russian economy have been shown, making the mentioned model of GDP growth unsuitable for solving large-scale problems of the modern age. The authors substantiate the necessity of the transition of the Russian economy to a new type of economic development of the neo-industrial type. An evaluation of the quality of economic growth in Russia of the 2000s from the perspective of the criteria for sustainable and inclusive development has been undertaken. A macro model of the innovation system of a particular subject of the Russian Federation has been built, which allows judging the dynamics and intensity of innovation processes in the regional economy, disparities in the regional innovation system development.

A series of measures is proposed, aimed at creating a neo-industrial model of development of Russia, the key ones being: development of a competitive innovative business environment, widespread and effective use of innovative cluster technologies, a radical transformation of the investment policy of the Russian enterprises, effective regulation of social and labor potential.

Introduction

Introduce the problem

Against the background of the debate that raged among the leading scientists and experts in the field of economic research about the causes, nature and consequences of the global financial and economic crisis of 2008-2009 (Krugman 2009, Piketty 2015, Soros 2012, Soros 2008, Grinberg 2015, Sukharev 2015, Guriev et al. 2011), interest in the problems of economic growth has been significantly increasing in the scientific community. Today, in the economic literature, issues related to the definition of growth factors that are adequate to the key challenges of modern civilization and the optimum ratio between them (Amosov 2016, Kudrin and Gurvich 2014, Grigoriev 2014), conditions to ensure sustainable innovative development (Shirov and Gusev 2015), major proportions in the economy, including the balance between consumption and savings (Pogosov and Sokolovskaya 2014) are widely discussed.

If we look at the essence of real economic growth as a solution and reproduction at a new level of the main contradiction of the economy (between the limited productive resources and the immensity of social needs), while in the longer time interval, it (growth) is presented, according to Schumpeter (2007) and Keynes (2007), as an essential constituent element of economic development. On the one hand, economic growth induces the cyclic nature of development, and on the other is itself a result of the changes to be prepared during the recession and depression (Hansen 1997). In this regard, the focus of experts in the field of economic research today is focused not so much on economic growth, as global changes (structural, institutional ones) in the economy, stable trends and laws of its transformation into a new quality – the "knowledge economy". This causes the broader goals of modern economic growth beyond simply increasing GDP and revenue (Ranieri and Ramos 2013).

In these circumstances, the urgent need is obvious to find a new model of economic growth that can respond to the current challenges facing the global and national economies and the society. For Russia, it is also important because of its deepening gap with other countries on a number of sensitive macroeconomic and social parameters (Ryazanov 2014). The neo-industrial concept of socio-economic development, formed in 2007-2014 by the Russian

economic school, and the concept of inclusive sustainable growth, having been gained popularity abroad, can be called among the most talked about now possible models of economic growth in the economics. Gubanov (2012) recognized as the founder of the first model, having outlined his fundamental program of new industrialization in a series of articles and monographs "Sovereign Breakthrough. Neo-Industrialization of Russia and Vertical Integration", believes that the current stage of socio-economic development is characterized by the entry into the historically higher epoch, when knowledge workers having higher qualification prevail as part of the total labor force of society; and science acts as a direct productive force. It logically follows that only the neo-industrial society can enjoy the genuine "knowledge economy", in which economic growth acquires a new – innovative – quality.

This approach, in principle, is consistent with the concept of inclusive economic growth, the main provisions of which have been developed by the Commission on Growth and Development, headed by Nobel laureate M. Spence, and are set out in its report "Strategy for Sustainable Growth and Inclusive Development" (Strategies for Sustained Growth and Inclusive Development 2016). It was concluded that there was a significant association between the rate of economic growth and addressing a broad range of social issues, including a more equitable distribution of income generated in the community, with particular attention to the poorest.

With regard to the existing currently socio-economic situation in Russia, the above concepts, in our opinion, should not be construed as alternative; they should complement each other in order to ensure a comprehensive approach to solving problems associated with the transition from model based on raw material export in Russia's GDP growth to a comprehensive (inclusive sustainable) development. Moreover, the need to use these concepts in their relationship and interaction can be regarded as justified also from the perspective of the key challenges to modern civilization, having been reflected in the report of the World Economic Forum (WEF) "Global Risks – 2014", a list of which was formed under the influence of a rethinking of the causes of the global financial-economic crisis in 2008-2009 and the protracted post-crisis period in global economies.

Explore importance of the problem

Current difficult socio-economic situation in Russia is caused by both external and internal factors. But if we talk about the main thing, such a situation was the result of model of the national economy development (growth), based on raw material export. A number of system drawbacks (Gubanov 2016) is inherent to the last one, among which are deep de-industrialization of the productive forces and financialization, which is manifested in a higher return on currency and stock exchange capital in comparison with the industrial one; financial-economic and technological dependence on foreign capital and external shocks; import petrodollar inflation; spending, and not the accumulation of national wealth; aggravation of the problem of technological backwardness and impoverishment of the population, etc. Extension of this model does not allow protecting the economy from the ravages of new negative factors, including: the autonomous recession; the growing gap in profitability between the extractive and manufacturing industries; decline in domestic accumulation fund and the negative efficiency of capital investments, and so on.

These factors make the expert and raw-material growth model absolutely unsuitable for solving large-scale problems arising from the key challenges and major trends and patterns of the modern era. In contrast, the new industrialization, as a model of progressive structural diversification of the economy, the accumulation and effective use of highly intellectual human capital, increasing productivity and quality of life, social consolidation of the country includes the internal, fundamental driving forces, sources and factors of economic growth and development in Russia.

The abovementioned leads to the conclusion about the expediency of the presidential instruction on the early development of a new model of economic growth, strategy and the economic neo-industrial development policy. On the one hand, this makes it necessary to consolidate the positions and efforts of economic scientists of different directions; on the other – requires specification of the diagnosis of the situation in Russian economy, as the object of revival. Against this background, evaluation of the quality and prospects of economic growth in Russia is timely and important from the standpoint of the criteria of neo-industrial paradigm and inclusive and sustainable development. The solution to this problem, according to the authors, is of fundamental importance not only to identify the preamble of efficiency and quality of the Russian economy, but also for the subsequent formation of neo-industrial development strategy of the Russian state.

Conclusion

These are the considerations which lead to the conclusion about the change of the model of GDP growth based on raw material export and the development of Russia to a new, progressive model of economic growth of neo-industrial type, adequate to key challenges and leading trends and patterns of the modern era. The latter meets the criteria of efficiency and quality of growth and combines the features of an innovative, sustainable and inclusive growth. The economic model of the new industrialization of Russia is now conceptually developed. The main problem is connected not so much with a theory as with the formation of a long-term strategy of neo-industrial development of the country.

Acknowledgments

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The Financial Services Satisfaction Analysis of the Customers in Slovakia and France

Lucia TARHANIČOVÁ
Technical University of Košice, Faculty of Economics, Slovakia
lucia.tarhanicova.2@tuke.sk

Jozef GLOVA
Technical University of Košice, Faculty of Economics, Slovakia
jozef.glova@tuke.sk

Abstract:

The competition in banking industry is nowadays very high. A model one bank for all life is no longer applicable and the clients are more informed, but also more demanding regarding their needs and satisfaction. The aim of the paper is to analyze customer satisfaction with financial services in Slovakia; theoretically define the basic concepts related to the topic of paper, to quantify the overall customer satisfaction, to identify the clue factors that have a significant influence on the satisfaction and the trust in banks, to better understand customer preferences and to compare this situation with the current situation in France. The analysis is completed by descriptive statistics and statistical test chi-square. The final part of paper is dedicated to conclusions and suggestions for banks to improve the customer satisfaction.

Keywords: Communication with bank, customer satisfaction, dimensions of trust, loyalty, quality of services.

JEL Classification: C51, C52, G12, G32.

Introduction

Marketing is the current scientific discipline, which is the part of economy. While the economy is mainly focused on a production and the producers, marketing is based on a consumer. There may be a question: why does the financial institution need the marketing? Bank as a financial institution is dependent on a public. The behaviour of a specific population is directly reflected in its profitability. Marketing helps to easily identify and further specify the target customers and their needs. The role of marketing is to understand the customer at a level that the provided service is satisfactory to him therefor he will require and expect this service again. (Gebai 2005) To evaluate clients' expectations towards their banks has never been easy. There are many factors that affect the relationship between a client and a bank. The customers are the ones who are more demanding and they require more; they expect benefits from their banks.

To have successful marketing orientation, the financial entities should focus not only on the products and the services, but it is crucial to have a business-oriented policy on the market, and focus on clients as well as on their preferences, needs and potential problems related with usage of the services. Financial institutions have to constantly adapt to changes in preferences and expectations of their clients, which should be associated with an increase in market share and profitability of financial institutions. (Auther and Kreutzmann 2012, Mateides and Ďaďo 2002)

The banking model widely used in the second half of the twentieth century, one bank for all life, is in the past. Clients used to accept the traditional offers of their banks and they trusted them without doubting, because they did not have enough information about the products and services of other banks and possessed only the limited financial knowledge. They were simply managed by their banks. One of the consequences was that the children became the clients of the same banks as their parents, grandparents. The bank was in the centre of client's life. Today the situation has changed in favour of the client. Financial knowledge of the clients is on a higher level; they are more informed about the products in various banks mainly due to large variety of communication channels. This means that a client who is interested in a new banking product or service will almost always compare the several options offered by the different banks. In other words, banks have become suppliers of services that can be easily replaced by competitors. In addition, the appearance of Internet and social networks, the bank may increase but also lose its reputation literally overnight. It is therefore clear that the model one bank for all life is becoming more and rarer (Auther and Kreutzmann 2012).

Conclusion

Considering today's global situation in banking industry, it is crucial for financial institutions to pay more attention to the customer. But it is not enough to reach the customer through the available communication channels, but the bank must evoke the feeling that the customer means something more and the bank finds him very valuable. The banking industry is currently in a situation where a competition between banks increases and simultaneously the barriers are reduced. Clients do not have a problem to complain, to switch a bank, to use the financial services of several banks. They try to customize their portfolio according to their own preferences. If the banks can better understand these preferences, it would help them to increase the current customer satisfaction.

This paper helps to identify these preferences and factors, quantifies the overall customer satisfaction and compares the situation in Slovakia and France, thus fulfils the research goal set up in the methodology of this paper and also provides the suggested areas in the form of recommendation for the banks. The recommendations are related to the following areas: customer experience, loyalty, communication, customer satisfaction, innovation and technological development, simplicity, counselling. The paper reveals that there are no significant differences in satisfaction of Slovak and French banking clients; that satisfaction does not depend either on gender or on the residence of the clients. The current customer satisfaction, as it is described in the analytical part of the paper, is 77% for Slovak and 74% for French respondents. Apparently, the banks can still improve. The paper managed to test the hypotheses and to find answers to research questions based on the own questionnaire and global customer satisfaction surveys.

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Place Management: Decoding the Visual Image of a Siberian City

Anastasia KISTOVA
Siberian Federal University, Russia[1]
akistova@bk.ru

Natalia PIMENOVA
Siberian Federal University, Russia
pimenova_nn@inbox.ru

Ksenia REZNIKOVA
Siberian Federal University, Russia
zamaraevay@bk.ru

Julia ZAMARAEVA
Siberian Federal University, Russia
k-reznikova@inbox.ru

Natalia KOPTSEVA
Siberian Federal University, Russia
decanka@mail.ru

Natalia SEREDKINA
Siberian Federal University, Russia
seredkinann@mail.ru

Antonina FILKO
Siberian Federal University, Russia
a_filko@mail.ru

Abstract

The paper is dedicated to the process of visual perception of city representation and to the method of decoding, devised by Vayna Ch., enabling identification of those signs of urban environment to which people of different groups turn to in the process of perception of visual representation of the city and its further reproduction in their memory. Within the framework of semiotic structuralism, the city is represented as a text, which is read by city residents and visitors. Perception of city visual representation by city residents and visitors are envisaged as a process of individual decoding of signs important for the subject, expressed in objects, basing on which a person forms his or her impression of the city. The article reports the results of empirical research of perception of visual representation of Krasnoyarsk city by the decoding method, on the basis of which application features of this method for the local specificity have been revealed.

Keywords: place-management, Krasnoyarsk city, Siberia.

JEL Classification: A13, O53, R12.

Introduction

Contemporary place management implies qualitative improvement of civic space where public and private sectors' efforts are well-coordinated. Current expansion to the Siberian Arctic has to do with a new turn in the development of Siberian and northern towns. The city of Krasnoyarsk is located in Central Siberia. Between the 1940s and the 1990s it was a large industrial centre with non-ferrous and ferrous metallurgies, and defence industry. Right now, Krasnoyarsk is undergoing significant changes due to the crisis in the manufacturing industry and its remoteness from large financial and logistics centres located in the west and east. Today, Krasnoyarsk needs dramatic improvement of its civic space, which requires more advanced place management. At the same time, high-quality place management for Krasnoyarsk means that a series of scientific studies looking into the city's relevant position and its image shared by its residents and tourists needs to be conducted. Decoding the visual image of Krasnoyarsk will reveal the content of this Siberian city's image and indicate the locations in its civic space which will have to be addressed by means of contemporary place management.

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[1] Krasnoyarsk, pr. Svobodny, 79

Literature review

The city, as a scientific object of knowledge, is viewed by some researchers as a spatial and structural form of socialization with its own signature, for instance, by Berking (2012). A similar point of view is that of Kaymaz (2013), who singles out urban landscape as a complex structure, which is constituted in the interaction between a person and their environment. The same idea of interaction is highlighted in the studies of Rapoport (2013). The city is defined in various studies also as a space, or a cluster of spaces and places. Winter (2012) and Freksa (1992) approach the notion of place and its meaning while looking at city image through the concept of cognition, as well as linguistic analysis of the vocabulary, used by residents to describe particular places and build patterns of how they are related.

At the moment, a number of scientists, such as Riza, Doratli and Fasli (2012), Kaymaz (2013), Khirfan and Momani (2013), Hunter (2012), Johansson (2012), Weina (2009), are carrying out numerous studies in the field of marketing to see how brands (in particular, their visual component) and identity are linked to the city image. Khirfan and Momani (2013) draw attention to the impact of a brand on the city image and point out the values ascribed to the given city image. They state that brands and images are basically visual symbols that render the encoded status of the city. Hunter (2012) compares the way a city is presented in travel brochures aimed at attracting customers and its real physical look. The interrelation of branding and image is tackled by Johansson (2012) and Weina (2009).

The emphasis on the process of transformation of the city image and its changes is made by Dembski (2013), Khirfan and Momani (2013), Weina (2009), Hunter (2012), Smith (2005). In the course of globalisation, some megalopolises are changing their status from that of industrial company cities to post-industrial cultural and tourist centres. The interrelation of city transformation and globalisation processes is stressed by Weina (2009). Smith (2005) looks at how the process of its image and brand modelling influences its various parts and components, both tangible and intangible, in terms of the city image transformation. The studies performed by Weina (2009) postulate that undergoing transformation, the visual image of the city, anchored in a particular picture, tends to evolve into the impression of the city which is to a greater extent related to emotions and feelings, perceived through the city atmosphere.

Papers dedicated to city branding often address the issue of how a new image of the city should be formed and designed. Ch. Weina (2009) notes that the city image can be created and transformed both by city officials, who impose it top-down, and by immediate users, residents and visitors, who shape it bottom-up at grass roots level. The same way the brand, imposed by officials, is compared to that based on the city community public opinion polls in the work by Khirfan and Momani (2013).

Perception of the city image per se is viewed by Dolnicar and Grabler (2014), Burgmanis, Krišjane and Šķilters (2014), Mijatović (2014), Weina (2009), Papadimitriou, Kaplanidou and Apostolopoulou (2015), Atik, Çakir and Benian (2009), Khirfan and Momani (2013), Rapoport (2013), Tomko and Winter (2013). The city image is interpreted as an impression formed as a result of perception of the city's tangible and intangible characteristics. According to K. Lynch, it is a person who "builds" the city in their imagination, drawing on various details of the city landscape. Burgmanis, Krišjane and Šķilters (2014) talk about perception in terms of reception of spatial knowledge, accentuating perception of geographical environment and analysis of mechanisms, that hamper retrieval of spatial information. They emphasize the importance of interaction between person and environment at the moment of perception, as well as the fact that the number of functionally significant spaces in a particular area constitutes an important factor in delivering the city image to its resident. Atik, Çakir and Benian (2009) highlight that people and their environment are interrelated through perception, which enables them to recognize and accept the city. These researchers point out that most cities are perceived visually, so their image is based on significant or attractive features of the city, kept in a person's memory. Therefore, it is through the impression, which its features make on people that the city image is supposed to be brought to awareness. Similar ideas are expressed by Weina (2009) in her methodological study of city perception, which rests on signs and symbols of the city environment, retained in a person's memory. Papadimitriou, and Apostolopoulou (2015) turn to studying collective impact of the city identity as a travel destination, as well its emotional image and how it influences formation of the general city image to see its consequent effect on tourists' behaviour and attitude. Tomko and Winter (2013) state that perception of a city depends on ways of getting about, since the city image is directly related to accessibility of its parts and physical experience thereof. Rapoport (2013) turns his attention to the way people interact with the arranged environment, as it is how he tackles the city and its perception in his man-environment studies.

Distinctions in terms of how the city environment and the city image are perceived by various groups depends on their sex, age, education, scope of activity, or nationality, as well as whether they belong to its residents or different groups of tourists, who have visited or are only going to visit the city. The visual image of a city comprises

both objective and subjective characteristics. Nevertheless, the image, different people have, proves to be nowhere near the same. The issue is addressed by works of Stylidis and Shani (2015), Zenker and Beckmann (2013), Weina (2009), Riza, Doratli and Fasli (2012), Dolnicar and Grabler (2014), Papadimitriou, Apostolopoulou (2015), Atik, Çakir and Benian (2009). Dolnicar and Grabler (2014) stress, however, that there are archetypal ideas of cities. Due to globalization and increased mobility of people, more and more scientists concentrate on how the city image is perceived by locals and various groups of tourists, for instance, in the study of Riza, Doratli and Fasli (2012).

Researchers Tomko and Winter (2013), Lynch (1990), Weina (2009), Nas (2011), Mijatović (2014), Riza, Doratli and Fasli (2012), Smith and Burch (2012), Krase and Shortell (2011), Johansson (2012), Golan (2015), Ilbeykina, Kolesnik, Libakova, Sertakova and Sitnikova (2015), Kolesnik and Mirkes (2011), Foxall (2013), Rapoport (2013), Utaberta, Jalali, Johar, Surat and Che-Ani (2012) while tackling the city image, its perception and identity, focus their attention on the tangible components of the image: architectural landmarks and their fragments, monuments and the city landscape in general with all its integral details. Foxall (2013) speaks about how tangible objects embody collective memory, which consequently translates into the city environment with all its monuments. Smith and Burch (2012) highlight the inclusive nature of the local city space in the residents' daily routines.

Many researchers look into the tangible foundation of the city image in terms of architectural landmarks, prevailing in the city environment. Riza, Doratli and Fasli (2012) stress in their study that monumental and iconic buildings contribute greatly to the city image, as well as the perceived standard of living in locals and tourists. Ilbeykina, Kolesnik, Libakova, Sertakova, Sitnikova (2015) have carried out a semiotic analysis of remarkable architecture. Sertakova (2014) analyses the social and cultural space of the city through architectural monuments.

Utaberta, Jalali, Johar, Surat and Che-Ani (2012) point out that buildings comprise a significant part of a city, as they perform a crucial role in organization and arrangement of the city appearance. The façades are particularly important for the city appearance, since they carry its identity and are appreciated by people from the perspective of how "rich" or "poor" their image is, basing on visual architectural and city (urban) elements that are found in the façades. Apart from architecture, scientists analyse yet other tangible components of the city image. Golan (2015) views a street as an example of a particular city symbol, a somewhat extended mark that is registered while getting around the city. Krase and Shortell (2011) look at the semiotics of local spaces (widely used) and state that their city spaces are filled with signs of collective identity, that can be represented by physical environment, various architectural elements, commercial symbols, billboards, or graffiti. They studied and compared visual images of public places in different world-class cities. The topic issue of city violence is raised by Aluko Opeyemi Idowu (2016).

Being representative of the Siberian urbanized space, Krasnoyarsk is seen in the context of ethnic and cultural identity in the Siberian Arctic (Koptseva 2014, Koprseva and Kirko 2014, Koptseva and Kirko 2015, Libakova *et al.* 2014, Mirkes and Sergeeva 2011, Petrov 2012). There have also been studies into the impact of urbanization on the indigenous peoples of Siberian Arctic (Kistova *et al.* 2014, Zamarayeva, Kistova, Pimenova, Seredkina 2015). Kolesnik and Mirkes (2011) consider city squares, the symmetry effect and its influence on the city residents and also search for visual signs in spaces of those squares. The key theory of visual perception of a city through its tangible nature, which referred to most often in various studies, is that of Lynch (1990). Lynch (1990) identified five basic elements that serve as a sort of mental "frame" for a city in a person's mind's eye. Such elements are paths, edges, districts, nodes, and landmarks. Later, the classification was extended by Tomko and Winter (2013), who also made an analysis of the local functional relations between the mentioned elements. Weina (2009) studies decoding of publicly accepted key elements of the city, which are retained in the memory of its residents and visitors and reproduced when recalled.

When the city image is studied in terms of its visual components, researchers often turn to photographs, as was the case with Krase and Shortell (2011) in their study of various cities of the world. Urban photographs are analysed to gain understanding of how local population accepts or rejects identities that could be imposed on them by the elite or outsiders (Smith and Burch 2012). Using photographs is especially relevant for identification of explicit and hidden messages that they promote (Hunter 2012). Salesses, Schechtner and Hidalgo (2013) approached the city analysis through photographs with location-based marks to construct the way the city is perceived by photographers.

Conclusion

The study of the visual image of Krasnoyarsk by way of decoding shows that when identifying a place in Krasnoyarsk people tend to turn to cues and objects that are related to numerous activities. In day to day interaction with the city image, its elements leave their most vivid impressions. When perceived, the city image of Krasnoyarsk is often associated with some landmark building. The impression rests on the functional component of the city centre. Impression of Krasnoyarsk presents the city as a place where events and interactions take place at any given moment. Perhaps, this is why the city was selected as a platform for business and cultural cooperation of Russia and the Asian region, as well as the city-host of Universiade 2019. Most vividly, Krasnoyarsk city centre identity can be expressed through objects of nature. The Yenisei is one of such element, together with the embankment and the bridge. Krasnoyarsk city centre has a clear visual image created by the river, its bridges and embankments. This image is wide spread in numerous printed materials and, as a result, becomes recognizable not only by its residents, but also by its visitors.

Impression of Krasnoyarsk can be based on the functional component of the city and its nature. The unique natural objects (the Yenisei) are capable of creating a powerful and memorable impression of the city. A large number of cafés, restaurants and shops, as well as numerous events of all kinds held in the city can also contribute to the bright and exclusive impression of Krasnoyarsk.

The prospects of a further scientific research into the impression of Krasnoyarsk lie in relation to other areas of the city, as well as their comparative analysis. In the further study, the number of respondents in some of the categories can be increased, namely in the age group of people under 18 and over 30. The series of local studies will provide for a comprehensive analysis of the whole civic space of Krasnoyarsk and its impression in the context of extending place management to cities and towns of the North and the rest of Siberia.

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The Drivers of Real Sector Growth in Malawi: An Empirical Investigation

Themba Gilbert CHIRWA
Department of Economics
University of South Africa, Pretoria, South Africa
tchirwa@gmail.com

Nicholas M. ODHIAMBO
Department of Economics
University of South Africa, Pretoria, South Africa
odhianm@unisa.ac.za , nmmbaya@yahoo.com

Abstract:

The paper empirically investigates the key macroeconomic determinants of growth in Malawi using the recently developed ARDL bounds-testing approach during the period 1970-2013. The paper is motivated by the social and economic challenges that Malawi has been facing in recent years. The study reveals that the key macroeconomic determinants that are significantly associated with economic growth include investment, human capital development, population growth, real exchange rate depreciation, inflation, and international trade. We find that, in the short-run, investment, population growth, real exchange rate depreciation, and international trade are positively associated with economic growth, while inflation is negatively associated with economic growth. However, the long-run results reveal that investment, human capital development, and international trade are positively associated with economic growth, while population growth and inflation are negatively associated with economic growth. These results have significant policy implications; since the economic strategies needed to increase economic growth in Malawi should focus on promoting incentives that attract investment, improve the quality of education, reduce population growth, ensure currency and inflation stability, and promote export diversification.

Keywords: Malawi, autoregressive distributed lag model, economic growth.

JEL Classification: F43, N17, O47, O55

Introduction

Since attaining independence in 1964, the Malawian economy has enjoyed a brief moment of high rates of economic growth, averaging 6.0% p.a. in the 1960s. From the 1970s onwards, the economy faced numerous social, economic and political challenges – resulting in low rates of both real GDP and per capita income. In spite of undertaking numerous political and economic reforms, the consequences of such low economic performance resulted in high poverty levels, averaging 71% in 2010, and the lowest per capita income in the Southern African region, averaging $274 per capita in 2014 (World Bank 2015b).

If this continues, the low growth performance that Malawi still experiences will lead to more social, economic and political hardships – if unchecked. For the economy to recover, it is important to understand the key macro-economic determinants of economic growth. This includes understanding the major factors that drive high economic growth, as well as those that have caused the economy to lag behind. In addition, it is important for Malawi to understand what policy directions the economy can adopt in order to alleviate poverty and achieve a sustainable high growth rate. This study intends to address these specific issues.

In many African economies, the economic strategies adopted are aimed at achieving high and sustainable economic growth rates, with a primary focus on achieving broader development objectives and shared prosperity. Achieving sustainable economic growth rates, either to move from low- to middle-income economies, or middle- to high-income economies, is a necessary condition: however, this is not necessarily sufficient. Easterly and Wetzel (1989) argued that the efficiency of savings and investment are equally important factors, in addition to their accumulation. Thus, policies that both attract savings and investment and make them more efficient by improving their resource allocation can further lead to a higher and more sustainable economic growth rates.

However, in order for savings and investment to be efficient, there is a need for a stable macro-economic environment that provides incentives to reduce capital flight. This would include ensuring stable macroeconomic conditions such as low inflation, real interest rate stability, real exchange rate stability, productive or non-distortionary government spending and a productive trade policy. It would also include maintaining an efficient price mechanism and regulatory environment, and efficient and effective institutions (both public and private). These factors have been empirically investigated and they are capable of turning savings into productive investment (World Bank 1990, Fischer 1993).

The behaviour of these macroeconomic conditions is, however, unique to each economy and dependent on its stage of development. In order for policy makers to understand the key determinants of economic growth that are specific to their country, country-based growth studies are therefore important. As argued by Anyanwu (2014), generating sustained economic growth rates is one of the pressing challenges that Africa faces today.

The aim of this study is to identify the key macroeconomic determinants of growth in Malawi using the available annual time-series data covering the period 1970-2013. In order to study these relationships, the paper employs the recently developed Autoregressive Distributed Lag (ARDL)-bounds testing approach to cointegration, introduced by Pesaran and Shin (1999) and Pesaran *et al*. (2001). The empirical results of this study are of importance especially to the Malawian economy for two reasons. Firstly, the study by employing country-specific econometric techniques identifies the key macroeconomic determinants that would drive economic growth and hence inform the relevant policy makers on which macroeconomic factors need attention. Secondly, despite a wide array of studies that have been conducted on the determinants of economic growth worldwide, to the best of our knowledge, no study has been conducted for Malawi that investigates the relationship between the key macro-economic determinants and economic growth.

The rest of this paper is organized as follows: Section 2 discusses the key macroeconomic drivers of economic growth in Malawi during the study period. Section 3 reviews the relevant empirical literature of the study. Section 4 discusses the empirical model specification, data sources, as well as the estimation techniques used in the study. Section 5 presents the empirical analysis results of the Malawian growth equation. Lastly, section 6 concludes the study and discuss some policy recommendations.

Conclusion

In this paper, we have empirically investigated the key macroeconomic determinants of economic growth in Malawi during the period 1970-2013. The main macroeconomic determinants investigated include the accumulation of physical capital, human capital development, population growth, government consumption, real exchange rate, inflation rate, international trade and foreign aid. The study has employed an augmented economic growth model; and it has used the Autoregressive Distributed Lag (ARDL) modelling approach to estimate both the short- and long-run elasticities of the selected macro-economic determinants. Using the ARDL bounds testing approach to cointegration, the study found that the key macroeconomic determinants that are positively associated with real GDP per capita growth in the short-run are investment, population growth, depreciation in the real exchange rate and international trade. On the other hand, inflation is negatively associated with the growth of real GDP per capita. In the long run, the study revealed that investment, human-capital development and international trade, are positively and significantly associated with the growth of real GDP per capita; while the population growth and inflation have a significantly negative relationship with long-run real GDP per capita. However, the study did not find any significant relationship between government consumption, foreign aid and economic growth, either in the short run, or in the long run.

These results have significant policy implications for Malawi, both in the short- and the long-run. They imply that the economic strategies that need to be pursued by the authorities in Malawi in the short-run should focus on creating incentives that will attract more investment into the country; technologies that improve the productivity of labour; stabilization of the real exchange rate; control of inflation; and an increase in exports. The long-term strategies that are crucial for Malawi's future include providing incentives that attract more long-term investment; improving the quality of human capital stock; reducing the rate of population growth; inflation stability; and increasing the production and productivity of exports. On the other hand, the lack of any significant relationship between government consumption, foreign aid and economic growth could be attributed to policy inconsistencies. As such, fiscal policies are encouraged to be more investment oriented; and foreign aid should support policies that focus more on making foreign aid more developmentally effective.

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Organization of Contract Relations and Structuring of Modern Investment – Construction Complexes in the Region

Tatiana Aleksandrovna SHINDINA
Faculty of Economics and Business Studies
South Ural State University, Chelyabinsk, Russia
shindina@74.ru

Abstract:

The theory of relations between subjects of the business activity originated long ago when people began to exchange various goods. Nowadays the relations are chaotically changing due to high technologies and complicated problems. Obviously, the contract relations harshly influence consummation of aims in economic processes and people want to control them. The search of methods and forms to improve management of economic systems produces factors for development of new ways of modeling that would reflect the diversity of external impact and imitate reality.

Key words: company cooperation; investment building complex; organizational structures; contract activity.

JEL Classification: E27, L14, L74.

Introduction

In the investment building complex, considering its nature, the organization of relations has short cycle related to the period of project realization. On the legislative level subjects of economic activity perform some functions. The formal aspect of relations is reflected in contracts. Characteristics of contracts help to point out and represent processes in the investment building project or a group of such projects. It's crucial for project managers to adhere to contractual terms so that's why they look for methods to enhance the management of a system.

According to the cognitive model the structure of subjects and contract relations helps to solve a scientific problem of structuring investment building complex and represent the organization of contract activity in the economic sphere. In order to form a system of company cooperation we use a cognitive map of structuring clusters as a method in order to understand formations in the investment building complex. The method can also help to use various advantages to solve management problems.

Conclusion

According to the results of the organizational activity analysis, development and special characteristics of investment building projects in the building complex it's essential to form organizational structures. Organizational structures are abstract representations of state of business, correct behavior in staff and society, independence degree of actions and business sphere in which these actions are performed. Besides, organizational structures are models that help to comprehend such characteristics as discipline and disorder, to prove stability of one structure and insecurity of the other, to discuss about methods and practicability of changes or to reserve the practical state of a situation.

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Trade Creation and Trade Diversion in the European Union after Creation of Single Market

Bianka BITTMANNOVA
Faculty of International Relations
University of Economics in Bratislava, Slovakia
bianka.bittmannova@gmail.com

Abstract:

The paper analyses the impact of creation of Single European Market in the European Union on the world economy. To test empirically if there have been some effects of trade creation or trade diversion in the trade flows of the European Community, the simplified version of the gravity model regression with appropriate dummy variables for the European Union membership are used. The analyses throughout the years 1992, 1993 and 1994 conducted with data for 14 countries (7 member countries of EU and 7 third countries) shows, that even though the EU membership of both countries affects the exports of one to the other member country positively, there is no evidence of the trade creation effect in 1993, when the Single European Market as such had been created.

Introduction

European Union (EU) as the biggest integration bloc in the world economy undoubtedly has a big impact on the trade flows on the global level. The creation of the Single Market of approximately half a billion of inhabitants has a great production potential, but on the other hand the extensive demand of its high income member countries attract the exporters from abroad. One of the main goals of the economic integration within the EU was to enhance the mutual trade between the member countries by withdrawal of the tariff barriers. The aim of this paper is to empirically analyse whether there was a positive impact of the economic integration in EU on the trade creation between its member states and if we can observe any impact on the trade diversion with the third countries. We use the enhanced gravity model to find out the effect of creation of the Single European Market on the world economy.

Trade creation and trade diversion are processes observed in the world economy, which emerge after the first stages of the economic integration (free trade area or customs union) and leads to change in the volume and direction of the trade flows. Trade creation is identified, when the new trade flow occurs or the existing one rises significantly. It can be welfare improving, when the imports replace the non-effective, high-cost domestic production. On the other hand, trade diversion is the opposite, welfare reducing process, where the trade flow is diverted from the original third-country supplier to the new partner within the integration bloc, because of the decrease of tariffs, even though the old supplier could be more efficient. Leading force in these processes is the elimination of tariff barriers. The economic integration is effective when the trade creation prevails over the trade diversion effect. In practice, the outcome may differ by every single traded product.

Based on the extensive existing work researching the effects of economic integration, we have set our aim to be to research of the effect of creation of the Single Market in the European Union. Single Market of the European Communities started to develop already since the end of the 1950s with the establishment of the ESUO and Euratom and had been further expanded in the 1968, when the stage of the Customs Union had been reached. Except of the abolition of tariffs and the common tariff policy towards third countries, the Single Market as the higher stage of integration consists of free movement of goods, free movement of services, free movement of people and free movement of capital, should have been reached. It means that not only tariffs but many other existing berries of the free movement had to be dissolved. Even though the functioning of the single market is still not perfect and there are many barriers remaining, it was officially launched in 1993, when most of the barriers had been dismantled.

To test empirically the effects of the trade creation and trade diversion, we have used the gravity model. The gravity model is one of the most commonly used tools to analyse the mutual trade of countries as well as the trade of regional trading agreements. It is based on the regression of trade on the series of explanatory variables, which have the most important impact on the trade between countries. The most common variables are the mutual volumes of trade, gross domestic product (GDP) of the countries, distance between the countries, number of population or GDP per capita etc. List of dummy variables are added in the papers, to mention a few it can be a

common border, common language, some important historical or cultural ties and other. In our paper, the dummy variables will be used to prove, whether the fact of integration in the EU has an impact on the trade of these countries.

The structure of the article is as follows: The first section introduces the topic and the aims of the paper. The second part consists of the literature review on the subject matter, what constitutes the theoretical base and the framework of the empirical analyses, which is further described. The third part is deducted to the introduction of the development and the current level of integration in the EU. In the fourth part the empirical part of the paper is presented, the data, methodology and the model are closely explained. In the end of the paper, the results of the analyses are presented and they are summarized in the conclusion.

Literature review

The traditional classic economic theory claims, that free trade is the best solution for effective functioning of the economy. That's why it was long assumed, that a preferential trading agreement or a customs union is improving welfare, because at least some of the tariffs are reduced. Later on, the analyses of the preferential trading areas started to deal with the effects of trade creation and trade diversion, which describe the effectiveness of the integration bloc. The difference was in the finding that the preferential agreement doesn't need to be always advantageous for all the players on the world scene.

The topic of the effectiveness of regional integration groups was researched by Jocob Viner, Chicago school economist in 1950, who first defined the terms of trade creation and trade diversion. Viner conducted the static analyses of the trade creation and trade diversion effects (Viner 1950). Since than on, Viner's model had been further studied and developed. Johnson used the partial equilibrium diagram to explain trade creation and trade diversion economic effects of the regional trading agreements (Johnson 1960). Others, for example El-Agraa (1998), Jovanocich (1998) or Robson (1998), used the Viner's model and studied the trade creation and trade diversion effect statically as well. In 2009, R.T. Dalimov came with the dynamic tool to the analyses, which he executed by the one-dimensional Navier-Stoxes equation used in physics to calculate the dynamics of the flux of liquid or gas. Dalimov had validated the Viner's trade creation and trade diversion effects even by the dynamic model (Dalimov 2009).

Two major approaches to study of the economic integration effects are the ex-post and ex-ante studies. The ex-post studies are concentrated on examining trade flows after the integration had been accomplished and they compare actual levels of trade with the predictions of trade in case the integration wouldn't be implemented. The ex-ante studies predict the impact of eliminating trade barriers between partner countries, using usually the estimated elasticities or the general equilibrium model.

Aitken was first to use the Tinbergen's gravity model to analyse the processes of trade creation and diversion in the integration groups (Aitken 1973, Tinbergen 1962). Others (including George *et al.* 1977, Frankel and Kahler 1993, Frankel and Wei 1995, Krueger 1999, Clausing 2001 and others) used gravity equations as well to examine also the other integration groups outside the Europe. The problem of this approach is that we cannot measure the extent of trade creation and trade diversion, but despite of that it is very popular by the analyses of the economic integration effects.

Previously mentioned studies have many critics as well. For example, Krugman had disproved the trade creation and diversion effects by arguing, that the mutual integration is conditioned by the previously significant bilateral trade levels, which is by itself trade creating. Krugman's most important factors to influence the volumes of trade are the trade costs and historical ties between the trading partners (Krugman 1991). Similar logic is used by Magee, who empirically tests that higher trade between the countries leads to forming of trade agreement between them (Magee 2003).

Balassa concentrates on studying the effects of integration in the European Community. He applies the comparison of ex-post income elasticities of import demand in intra- and extra-area trade in the periods prior and after integration. His findings show a positive trade creation, but no evidence for trade diversion effect. In addition, the results differ in various commodity categories (Balassa 1967).

By simple observation of the intra-union trade and its share of the total union trade, many would conclude, that the rise of intra-union trade automatically means that trade is created. But this fact can be explained by the rising importance of the European Union and its competitiveness in the world markets (Balassa 1967). Furthermore, today we cannot claim this anymore, because by the rising position of the new emerging market in the world economy, the share of the EU's trade on the world trade is continuously declining.

Lamfalussy had compared the shares of European Community as an import market, in the exports of member and non-member countries in the 1960s, but he didn't find evidence for trade creation nor for trade

diversion. (Lamfalussy 1963). Using the trade matrix for calculating the hypothetical trade flows and comparing them with the actual ones, Waelbroeck had come to a conclusion, that the European Common Market has a huge impact on the world trade composition (Waelbroeck 1964). But from the model it was not evident, whether the trade creation or the trade diversion effect prevails. That is why Waelbroeck uses the Tinbergen's gravity model regression analysis further on as well. Even though the model had come to similar results and had shown, that from 1958 to 1962 trade had been created in the EEC, it cannot be assigned to be the integration effect, while before the Common Market creation in 1954 the same result had been reached.

The choice of the countries, their number and types of economies, is also important for the result of the gravity model (Haveman and Hummels 1998). Differences in the sample of the countries used in the gravity model can lead to different outcomes. The results of the gravity model are very sensitive to the variables which are used in the regressions, as well as the researcher's prior beliefs (Ghosh and Yamarik 2004), therefore their choice is very important. Hamilton and Winters (1992) established that the trade preference group variables consisting of the developing countries were statistically less significant in the intra-union trade.

Conclusion

It is evident, that the preferential trading integration groups are changing the world trade structure. This can be said even about the European Union, which is the biggest integration group in the world economy today. The intra- and extra-union trade is responsible for one of the biggest shares of the world trade. Despite of the fact that many studies have proven the trade creation effect of the European Community or later European Union, our research of the period or years 1992, 1993 and 1994, when the Single European Market had been created (in 1993) had not showed any evidence for the trade creation effect in the European Union. Surprisingly we have calculated a trade diversion effect in year 1993, but the regression result was slightly over the 5 % limit for the statistical significance.

The fact of not finding the evidence for the trade creation in the European Union in the time of Single Market creation can have many reasons. We can conclude that the changes experienced in the year 1993 had been most probably implemented for a very short time to be reflected in the traded volumes of goods already in the year 1993 or in 1994 respectively.

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Retesting Financial Decoupling Hypothesis: An Empirical Study

Dmitry BURAKOV
Department of Monetary Relations & Monetary Policy
Financial University under the Government of Russian Federation, Moscow, Russia
dbur89@yandex.ru

Abstract

In this article, we set ourselves a task to test financial decupling hypothesis by studying 18 national credit cycles in developed and developing countries, using monthly data on growth rates of loans to nonfinancial sector for the period from January 2002 to January 2015. The purpose of this article is empirical testing of two hypotheses: validity of financial decoupling for developing economies and empirical testing of Russian credit market's sensitivity to shocks in other national economies. In result, we come to the following conclusions. Firstly, the relationship between credit cycles of countries in the sample over the studied period exists and persists in the short, and is absent in the long run. Secondly, testing the financial decoupling hypothesis between developed and developing countries does not confirm it in its classic state. In the short run, a number of sampled developing countries are sensitive to external credit shocks from developed countries. Third, we have found presence of both long and short-term sensitivity of Russian credit market to shocks in both developed and developing countries. These results confirm the necessity of reconsidering conventional theory of credit market and international finance, and also have to be taken into account when conducting national monetary policy.

Keywords: credit cycle, credit risk, credit market, financial decoupling, financial convergence, elasticity.

JEL Classification: B26, E32, F34.

Introduction

The acceleration of economic growth and growth of the financial sector of several developing countries in Latin America and Asia, amid the steadily low rate of developed countries, has led in the late twentieth century to emergence of a hypothesis, according to which the scale and complexity of markets' organization in developing countries has reached such a level that the influence of developed markets is eroding. In other words, it is assumed that stability of national economies and financial markets of developing countries to exogenous shocks has increased significantly, and the sensitivity, on the contrary decreased. This empirical observation, based on prevailing performance of economic sectors, stock markets and banking systems in developing countries over developed countries (primarily the US), has pushed research and expert circles to the extension of the divergence (decoupling) hypothesis. Moreover, this hypothesis applies to economic sectors (economic decoupling) as well as to financial ones (financial decoupling).

The essence of decoupling hypothesis varies and covers different aspects of relationship between national economies and financial markets. For example, in some cases, decoupling hypothesis reflects a degree of synchrony in the movement of national business cycles and their dependencies from each other. In other cases, one can talk about a degree of sensitivity of national financial markets to shocks in demand or technological shocks in other markets.

In this study, because of a number of reasons listed below we consider only financial decoupling hypothesis.

Since a theoretical core of this hypothesis is the question of flexibility, sensitivity to shock phenomena and, consequently, the synchronicity between national economies' and financial and credit markets' dynamics, one of the best approaches to study viability of this hypothesis would be using theory of credit cycles, which takes into account dynamic aspect of credit market on the one hand, and also allows to account for the crisis component, as implementation of accumulated risks and thus analyse an impact of shocks on the credit market of one country to the other and to identify channels of transmission in both the short and long run.

Thus, testing viability of financial decoupling hypothesis - divergence of trends on financial markets of developed and developing countries, is not so much an academic challenge, "science for science's sake", as an objective necessity, which is dictated by a goal of improving credit market's regulation in the national economy, ensuring financial stability of the latter, and thereby facilitating, to a certain extent, achievement of global financial stability. A clear understanding of an absence or presence and extent of sensitivity of some credit markets to dynamics of others will form a theoretical basis for development of instruments aimed at reducing volatility on financial markets, timely response to international capital flows and countering financial crises.

Due to abovementioned facts, testing financial decoupling hypotheses in the light of credit cycles seems to us to be relevant, timely, and appropriate to current goals and objectives of international financial regulation.

Literature review

The current state of financial decoupling hypothesis research can be divided into three arrays. The first block of studies is associated with the identification of decoupling, lack of synchrony on the markets of goods, services and capital. The second set of studies refutes financial decoupling hypothesis, presenting arguments in favour of existence of synchronicity and sensitivity of emerging markets to shocks in developed countries. The third set of studies includes determination of characteristics of sensitivity of national financial and credit markets to changes on developed markets. In other words, the third line of research defines the process of divergence-convergence of the existing context and specific channels of transmission.

First, second and third area of research are characterized by the use of different research methods, lines of argumentation and conclusions.

We shall consider each of these areas, including economic decoupling in order to highlight variety of methods to study the issue.

A number of researchers dedicates their work to the analysis of economic decoupling hypothesis. One of the most well-known papers on this subject is the study of Kose et al (2008), in which regression analysis of the degree of business cycles synchronicity of 106 countries in the sample over the period from 1960 to 2005 is carried out, Dividing countries on regions, the study implied averages of output growth rates. The main result of the study was that in the period from 1985 to 2005 synchronicity between business cycles of developed and developing countries is absent. Kose and Prasad (2010) came to the same results in the study based on the use of longer time series for the countries in the sample two years later. The authors of the World Economic Outlook published by the IMF, based on the method of decomposition of variance of data on global, regional and country levels also come to the conclusion that over the period from 1985 to 2005 regional relationship between the samples of developed and developing countries played a key role in explaining business cycles (GDP growth rate). To similar conclusions, using methods of regression analysis came Yeyati and Williams (2012). On the basis of regression analysis of volatility relationship between GDP growth rates of selected developing countries and countries of the G7, authors obtained a positive, stable and statistically significant value of beta-coefficients, which indicates one-directional movement of sampled economies.

However, there is an alternative point of view, according to which decoupling of national economies do not exist or is weak. *For example*, one of the most famous studies denying the decoupling hypothesis is a paper by Welty (2009), which is based on the analysis of 34 developing countries and 29 developed countries, allocated in different groups, for the period 1980-2007. The author, based on the assessment of deviations of GDP from a long-term trend, given the time lag and using methods of statistical filtration, came to conclusion that the relationship between developed and developing countries is strong enough and is not inferior to synchronicity of business cycles of developed countries.

The increasing criticism of financial decoupling hypothesis was associated with large-scale expansion of subprime mortgage crisis in the United States and the beginning of the Great Recession. For example, in paper by Wyrobek and Stanczyk (2013), based on regression analysis of relationship between business cycles in developed countries and Poland, authors argue that sensitivity of an economy to shocks in economic systems of developed countries is statistically significant and significant in 5% confidence interval. To similar conclusions come Baxter and Kouparitsas (2005), Leamer (1983) and Imbs (2006). These studies examine an effect of increased international trade (flows of goods and services) on synchronicity of business cycles in different periods. The authors come to conclusion about the presence of synchronicity in movement of sampled national economies.

In the case of financial decoupling, situation is very similar. For example, Imbs (2004) and Inklaar et al (2008) in their studies argue that financial integration helps synchronizing movements of not only national economies but also financial markets. In contrast, proponents of financial decoupling (Bordo and Helbling, 2004), using VECM to detect long-term dependencies could not find confirmation of importance of financial integration on synchronization of business cycles and financial markets. In the paper studying impact of integration of capital markets on synchronicity of national economies, Kalemli-Ozcan *et al.* (2001) also comes to conclusion about unimportance of this factor, due to the fact that integration of capital markets leads to increased division of labour and industry concentration of national economies, which leads to a decrease in synchronicity of sampled national economies' output.

Results of analysis of financial markets' decoupling-recoupling are also quite ambivalent. Typically, researchers use data on securities traded on stock exchanges, or may use risk premium values to reflect the synchronicity. *For example*, Miankhel etc. (2010) testing the hypothesis on the basis of US mortgage crisis 2007, comes to conclusion about existence of various transmission channels of shock phenomena having potential impact on capital markets' synchronicity. Among them, he points out international capital flows, effective federal funds rate, as well as trading volumes on stock exchanges. The author concludes that synchronicity of financial and business

cycles is context dependent on nature of the shock. To similar conclusions come Floros *et al.* (2013). Using data on risk premium on futures traded on the Greek stock market, authors come to conclusion that the national debt crisis in Greece served as a factor that strengthened convergence on financial markets of European countries. One of the few papers on financial decoupling hypothesis, using data on dynamics of credit markets, is the work of Stolbov (2014), in which a VAR model is used to determine relationship between national credit markets at the regional level. The author uses annual data on credit-to-GDP ratio between 1980 and 2010 and comes to conclusion about existence of relationship at the regional level of sampled national credit markets. However, in this study the author did not set a task of testing financial decoupling hypotheses, and applying credit-to-GDP ratio may not be the best indicator of synchronicity between financial markets.

Thus, considering positions of various researchers, it can be assumed that a single and generally accepted point of view regarding financial decoupling hypothesis in modern research community does not exist. It is also important to note that studies, testing this hypothesis for credit markets are few or absent.

This fact determines a purpose and objectives of this study. In this article, we set ourselves following objectives: to test the financial decoupling hypothesis on the example of national credit cycles and to determine presence/absence and nature of sensitivity of Russian credit market to exogenous shock on credit markets in developed and developing countries.

Conclusion

This study examines the hypothesis of financial decoupling, according to which specificity of development of a number of countries determines independence of their national economic and financial systems, thus allowing to form an immunity to exogenous shocks coming from the developed country.

In this article, we set ourselves a task to test this hypothesis on the example of several developing countries on the one hand and to determine degree of synchronicity of credit cycles with the cycles of the developed countries in order to empirical test the hypothesis of financial divergence on the example of Russia.

In the result, we come to conclusion that financial decoupling hypothesis deserves a right to live, but not in the rigid, orthodox form in which it has appeared. Modern research increasingly recognizes the context dependence of processes of divergence and convergence, as exemplified by our study.

As a result of testing our hypotheses, we come to conclusion on coexistence of two opposite trends in the movement of national credit markets. Through the analysis of national credit cycles of sampled countries, we have found that depending on specifics of A national economy and credit markets, convergence/divergence of credit markets has its duration and amplitude. In case of most developing countries, dependence from shocks on the credit market of the USA remains. The same is true for a number of Eurozone countries. Even if we have different channels of transmission of shocks, it's not enough to speak of existence of credit cycle's independence: synchrony of credit, as well as business cycles remains, which once again confirms the continuation of the era of financial globalization, even with the emphasis on regionalization of economic and trade relations.

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Implementation Risks in Investment Projects on Boosting High-Tech Business Production Capacity: Analysis and Management

Aleksandr Mikaylovich BATKOVSKIY
Joint Stock Company Central Research Institute of Economy
Management and Information Systems Electronics, Moscow, Russia
batkovskiy_a_m@instel.ru

Alena Vladimirovna FOMINA
Joint Stock Company Central Research Institute of Economy
Management and Information Systems Electronics, Moscow, Russia
fomina_a@instel.ru

Mikhail Aleksandrovich BATKOVSKIY
Mytishchi Research Institute of Radio Equipment, Russia
batkovsky@yandex.ru

Vladislav Valerievich KLOCHKOV
V.A. Trapeznikov Institute of Control Sciences
Russian Academy of Sciences, Moscow, Russia
vlad_klochkov@mail.ru

Elena Georgievna SEMENOVA
Institute of Innovation and Basic Postgraduate Training
St. Petersburg State University of Aerospace Instrumentation, Russia
egsemenova@mail.ru

Abstract:

The classification of the changes in the forecasted conditions of the production capacity development projects have been suggested including changes in demand for the product, changes in the product mix and in the production technologies. Quantitative evaluations of potential losses under different types of changes and relative to the stage of the investment project implementation have been obtained. Adaptation to the changes under analysis can require considerable costs; the changes can entail irrecoverable loss of the invested capital. Thus, at the investment stage, the project is exposed to major risks.

This study takes into account sector-specific conditions of the aviation industry including technological structure of capital investments, time structure of the investment stage of the production capacity development projects and the technological affinity of different types of products. Based on the obtained evaluations, the most important types of risks have been identified for each stage of the project implementation; the recommendations have been developed on managing these risks both tactically and strategically, particularly, by means of selecting the technologies that are less exposed to that or another type of risk. The analysis has been carried out to estimate the effect produced by the technological levels of the production facilities.

Keywords: aviation industry, investment project, risk, technological affinity, technological structure of capital investments, real options.

JEL Classification: A12, A31, C58, O22.

Introduction

Over the long period of implementing the project on developing the material and technical resource base of industrial companies, i.e. the project on constructing new production facilities, reconstruction or conversion of the existing ones, the changes can occur that would affect the future efficiency of these plants and equipment. Fundamental problems of Russian practical management of investment project implementation are that the companies integrated within the structures of the high-tech industrial sector as well as the governmental authorities that control them usually "look back" when they check the legitimacy of the expenditures already incurred, whereas they ought to "look forward" making economically justified decisions on further funding and on the areas of future expenditures. In Russian high-tech sector, management systems hardly ever apply monitoring that "faces the future" estimating, from the market perspective, the advisability to proceed with the project, taking into account the following factors: changing market situation; emerging new technologies; changes in the accessibility of the technologies and equipment, especially, the imported ones; changing currency exchange rate, etc. Delays and inaccuracy in evaluating the above mentioned groups of factors affect the efficiency of developing the production capacity.

Conclusion

Based on the undertaken analysis and taking into account the specific technical and economic features of the aviation industry at the existing stage of its technological development, the study showed that the most significant risks are represented by the risk of drastic changes in the technological processes, in the requirements to their characteristics and to the process equipment that are actualized at the stage of purchasing, installing and commissioning the equipment. Getting closer to the moment of putting the object in operation, the potential losses and extra costs can become almost equal to the total costs of the project (at the very least, they can be as high as 70-85%). At CIO stage, the most severe losses can occur if the planned output is reduced, but, in any case, these losses cannot exceed the costs of the fixed-capital assets that make, in all basic subsectors of the aviation industry, not more than 10-30% of the total amount of capital investments. The least significant risk is associated with changes in the product mix with the unchanged existing technological level across the aviation industry. In all other cases, potential losses cannot be higher than 15 to 40% of the total costs of the project, even under the conditions when the stages under consideration have already been accomplished.

The efficiency of developing production facilities in Russian aviation industry is decreasing considerably due to the lack of flexibility in the decision-making processes over the long period of the investment project implementation. Over this period, the predicted future demand for the products and the costs of the equipment can change; new technological processes can emerge. It is deemed advisable that the methodology of real options should be applied for managing the implementation of the long-term investment projects.

Acknowledgements

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Grounding of the Combination Parameters of the Agricultural and Processing Branches of the Agricultural Enterprises by the Operations Research Method

Aleksei G. BURDA
Kuban State Agrarian University[1], Russia
agburda@mail.ru

Olga Y. FRANTSISKO
Kuban State Agrarian University, Russia
fricsoolga@mail.ru

Tat'yana P. BARANOVSKAYA
Kuban State Agrarian University, Russia
baranovskaya.t@kubsau.ru

Aleksander I. TRUBILIN
Kuban State Agrarian University, Russia
trubilin.a@kubsau.ru

Valerii I. LOIKO
Kuban State Agrarian University, Russia
loyko.v@kubsau.ru

Abstract

Combination parameters of the agricultural and processing branches of the agricultural enterprises and their parameterization were grounded. The cooperative connections of the branches of agricultural enterprises and their parameterization were studied. The mathematical model of combination optimization of the production and processing of agricultural raw material at the agricultural enterprises was offered. Optimization calculations of the parameters of the model enterprises of Krasnodar Krai were carried out. Optimal economical parameters of the agricultural enterprises with separate processing plants were studied. The comparison of the various scenarios of the development of the agricultural formations was carried out: production of the agricultural products without its processing; production of sunflower oil; processing of winter wheat grain into flour and farina; milk processing into the packed milk, production of butter and cheese; possibility to acquire the agricultural raw material for the processing at the existing facilities and sale of the processed products. The comparison of the scenarios was carried out according to the parameters characterizing the scale of production, commercial potential, level of concentration and specialization, intensity, level of intercompany agro-industrial integration, production efficiency.

Keywords: parameter, operation research, agriculture, enterprise, model, optimization, scenario, processing.

JEL Classification: C51, F14, Q10, Q19.

Introduction

In the modern economy, when the conditions of the functioning of agricultural enterprises have been changed due to the institutional transformations stipulated by the improvement of the business logistics, implementation of the innovational developments into the production and processing of the agricultural products, development of the logistic promotion of the finished products, the search of the approaches to the grounding of the parameters of agricultural formations become critical. When creating and developing of subsidiary processing production facilities, the manufacturers of the agricultural products get the possibility to become independent from the trading and processing companies that take the monopoly position and dictate the prices for the raw material and also to adapt faster to the changing conditions of the market by means of a better mobilization of the resources of the enterprise, diversification of the activity, improvement of the financial condition, obtaining of the additional profit as the sale of the finished processed product is much more profitable than the sale of the raw agricultural materials.

Agricultural enterprises face a choice of the cooperation form that depends upon some factors: availability of land, material, labour and other resources, level of specialization of an enterprise, availability of the market outlets, convenience of location, availability of the equipment for processing of products, etc. Scientists and

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[1] Russia, 350044, Krasnodar, Kalinina Street, 13

practitioners were interested in the problems of cooperation and agricultural integration in the last century (Chayanov 1927, Malofeev 1972, Bagmut 1996), as well as now (Ternovykh *et al.* 2013, Rysmyatov *et al.* 2008).

When using not only intuition but also the strict mathematical computations and calculations, applying the modern mathematical methods and instrumental means in economy, the efficiency of the decisions taken increases significantly (Afonichkin 1998). Determination of the optimal variants of the interconnections of agricultural and processing branches is necessary for the efficient operation of the agricultural enterprises, and taking into account the fact that modern large-scale agricultural formations are mostly diversified enterprises and do not only produce, but also process the products, that is why the problems of optimization of cooperation connections of agricultural and processing branches of the enterprises are of such a great importance.

Conclusion

The conducted research allowed to clarify the system of economic parameters of the agricultural enterprises adding to them the level of intercompany agro-industrial integration characterizing the formation of the auxiliary processing plants and its efficiency. This parameter shall be considered by means of the indicators as share of processed products in the income, income from processed products per 100 hectares of land, share of employees involved into processing of the total number of employees, profit from processing plants, profitability of the processing plants, etc.

Using the methods of modeling and optimization, the scenarios of the development of the agricultural enterprises and the optimal parameters of the agricultural enterprises, involved into the processing of the various types of agricultural raw material, were developed. The numerical model composed according to the offered economic and mathematical model can be used many times, it can be trained inserting the corrections in case of conditions changes of the activity of the agricultural enterprise, and that makes this method efficient.

Using the offered economic and mathematical model, we can determine the optimal parameters of any agricultural enterprise for any scenario of its development, combining the production and processing of the agricultural raw material (sunflower into oil, wheat into flour and farina, milk into packed milk, cheese and butter), and at the same time its maximal efficiency will be provided.

The theoretical, methodical and practical recommendations offered in the research give the possibility to implement the development of the scenarios of the development of the agricultural enterprises processing the agricultural products by means of the economic and mathematical modelling. The scenarios of the development obtained as a result will lead to the increase of economic efficiency of its activity as a result of the organization of their own processing plants. At the same time, the head of the agricultural enterprise can choose the scenario of the development that corresponds to the conditions of the operation, his experience and intuition.

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Terms of Trade and Economic Growth in Thailand

Malliga SOMPHOLKRANG
Indo-China Country International Trade and Economic Research Sector
Faculty of Integrated Social Sciences, Khon Kaen University, Nong Khai Campus, Thailand
mullso@kku.ac.th

Abstract:

The purpose of this study is to examine the impact of the terms of trade and its volatility on economic growth in Thailand through the Auto Regressive Distributed Lag (ARDL) model. The analysis was employed with time series data from 1981 to 2015. Results of the bounds testing procedure confirm that there is a long run relationship between the terms of trade volatility with economic growth. Results show that only the volatility of the terms of trade significantly affects the economic growth of Thailand in the long run and in the short run. The study provides some interesting findings; the improvement of labor force quality, capital productivity, import and export prices, and the characteristics of trading partners should be considered when formulating policy in Thailand.

Keywords: terms of trade, terms of trade volatility, economic growth.

JEL Classification: C32, F41, F43.

Introduction

An important issue in the current period is the impact of macroeconomic variables on economic growth. Terms of trade, terms of trade uncertainty, exchange rate regimes and foreign direct investment (FDI) are some interesting macroeconomic variables identified in previous research (Bleaney and Greenaway 2001, Broda and Tille 2003, Jawaid and Waheed 2011, Samini, Sadeghi and Sadeghi 2011, Skare, Simurina and Tomic 2012, Wong 2004, Wong 2010).

Specially, volatility in the terms of trade is greater at present. This may be a result of globalization, economic integration and technology and may lead to greater uncertainty. Changes in terms of trade can explain approximately fifty percent of output volatility according to Mendoza (1995, 1997).

For Thailand, the terms of trade and volatility in the terms of trade have barely been investigated in terms of economic growth, but there are only some related studies. Kohpaiboon (2003) indicated the effect of foreign direct investment (FDI) on aggregate growth in Thailand, and Turnovsky and Chattopadhyay (2003) tested the effects of the terms of trade and terms of trade volatility on economic growth in developing countries. They indicated that there is a relationship between terms of trade and terms of trade volatility and economic growth in these countries. Past studies are unclear as to how both variables affect economic growth.

Moreover, it is widely believed that the terms of trade and their volatility are linked with the relative price of exports and imports. These variables should also significantly influence export, import and economic growth in Thailand. Exports and imports are considered to be an important part of gross domestic product (GDP) in Thailand. As data from the Ministry of Commerce reveal, exports and imports account for more than forty percent of Thailand's GDP. Therefore, the analysis of the terms of trade and its volatility is important in broadening the understanding of this issue. The purpose of the study is to investigate the effects of the terms of trade and the volatility of the terms of trade on economic growth in the case of Thailand.

The components of the article are organized as follows. Section 2 reviews some literature about terms of trade, terms of trade volatility and economic growth. Section 3 describes the model, followed by the presentation of data and methodology in Section 4. The results are reported in the next section. Section 6 provides the conclusion.

Conclusion

The purpose of this study is to examine the impact of the terms of trade and its volatility on economic growth in Thailand through the Auto Regressive Distributed Lag (ARDL) model. The analysis was employed with time series data from 1981 to 2015. The data are obtained from World Bank and UNCTAD database. The terms of trade volatility are measured by employing the generalized autoregressive conditional heteroskedasticity (GARCH) model. The stationary Test, the bound tests, the Toda-Yamamoto approach, the CUSUM and the CUSUMSQ test and the rolling window regression method are applied in the empirical analysis.

The unit root test results show that each variable is different in the integration order of all variables. The result of the analysis of the terms of trade and its volatility's impact on economic growth by using the Auto Regressive Distributed Lag (ARDL) model is that the labor force, capital stock and terms of trade volatility have a significant impact on economic growth in the long run. The terms of trade have an insignificant impact on economic growth. It is possible that Thailand is specialized in capital commodities. The labor force, capital stock and terms of trade volatility have significant impact on economic growth in the short run. Unidirectional causality is revealed between the volatility of terms of trade and economic growth. The CUSUM and CUMSQ tests show that the short run model is stable. The rolling regression results show that for the period of 1992 to 2015 the terms of trade volatility are unstable.

The results suggest that the improvement of labor force quality and capital productivity are initially important policies for economic growth in Thailand. In addition, the components of import and export goods and the differences in their price should be considered because they are significant determinants of the terms of trade volatility. Therefore, trade policy should give importance to price and the characteristics of trading partners to reduce volatility. Moreover, it may imply that Thailand should be a small open economy to reduce the impacts of terms of trade shocks as terms of trade volatility impacts economic growth.

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Trade Balance and Money Supply: Evidence from Iran

Lotfali AGHELI
Economic Research Institute, Tarbiat Modares University, Iran
aghelik@modares.ac.ir

Abstract:

This paper aims to examine the effect of money supply on trade balance in Iran. A simple Kynesian model is modified to account for money market through absorption approach. In this model, the imbalances in the money market are linked to trade balance. After testing series against unit root under structural break, a co-integration relationship among trade balance, real money supply, economic growth and inflation rate was found during 1970-2014. Our findings imply that a positive balance on trade needs to exert contractionary monetary policy, which leads to control of money supply and lowers inflation rate, and adopting proper fiscal policies, and also institutional reforms towards sound macroeconomic environment.

Keywords: domestic absorption, money supply, current account, structural break.

JEL Classification: E12, E51, F32, C21.

Introduction

Monetary and fiscal policies are commonly made to achieve macroeconomic goals including stable economic growth, economic stability, full employment, fair distribution of incomes and balance of payments. One main element of balance of payments is trade balance, which plays central role in open economies.

Due to high dependency of Iranian economy on oil and gas revenues, trade balance is affected by exogenous oil price shocks, on one hand, and domestic economic policies on the other hand. When oil, gas and related exports are excluded from goods exports, a chronic trade deficit is observable for a long period in the trade relationships between Iran and its trade partners. The relatively weak industrial base and low diversity of exportable goods and services result in undesirable records in trade balance. Meanwhile the increasing demand for imports of capital and intermediate goods worsens trade deficit in Iran.

From the Kynesian approach to economic equilibrium, there is no strong and direct link between monetary policy and trade balance. If an expansionary monetary policy can boost the economic growth, through reducing interest rate and stimulating employment, then increases in domestic production will be led to international markets. Consequently, it is expected that trade balance will change in a favorable direction.

Devaluation of national currency is a common policy for a country facing a persistent balance of payments (Bahmani-Oskooee 1985). According to elasticities approach to balance of payments, devaluation will improve the trade balance, when Marshall-Lerner condition is satisfied. This condition states that exchange rate devaluation will improve the balance of trade if the absolute value of sum of the long-term export and import demand elasticities is greater than unity.

In keeping with the absorption approach, devaluation changes the terms of trade, increases production, and switches expenditures from foreign to domestic goods. Thus, trade balance is improved. From the viewpoints of international monetarists, devaluation reduces the real value of cash balances, and improves the trade balance (Himarios 1989, Reinhart 1995). In empirical studies, the undesirable effect of devaluation on trade balance, i.e., J-curve concept, are also confirmed (Demirden and Pastine 1995, Halicioglu 2007, Bahmani-Oskooee and Kutan 2009).

Miles (1979) related changes in the trade balance to changes in the exchange rate, income, and money supply. Using annual data for 14 countries over the period 1956-72, he found that the devaluation did not improve the trade balance.

Focusing on Iran this paper aims to study the mechanism and amount of impact of money supply on trade balance. This paper uses income and money variables as predictors of trade balance. By a combination of absorption and monetary approaches to the balance of payments, the effect of inflation rate on trade balance is also considered.

The remainder of this paper is organized in (4) sections. Section (2) devotes to a review of literature. Data and methodology are presented in section (3). Section (4) discusses the results from empirical strategy. Finally, section (5) concludes.

Conclusion

This paper tried to bridge between current account and monetary policy in Iran. The interaction between current account and money market is of great importance in macroeconomic policy-making. The central bank can indirectly influence exports and imports of goods and services through managing interest rates and controlling supply of money. In Iran, the central bank is under supervision government bodies, thus it cannot adopt monetary policies without coordinating with public authorities. As a result, implementing public developmental projects, which requires enormous funds, should be financed by banking facilities.

Our findings indicate a long run relationship between monetary policy and trade balance. These are similar to results of Duasa (2007) and Gertler and Svensson (2008). According to the econometric specifications, contractionary monetary policy limits the supply money on one hand and reducer the inflation rate on the other hand. The decreases in money supply and inflation rate can boost net exports.

Based on our findings, since real GDP plays a stimulating role in trade balance, thus the proper monetary and fiscal policies must design to increase economic growth. Although fiscal and monetary instruments such as interest rate, money supply, tax rate, import tariffs can be exploited to this end, however a sound macroeconomic environment, which stems from strong social and economic institutions, helps to reach higher economic growth rates.

The final point that should be mentioned here is to consider the capital account and balance of payments. The monetary policy has close link with capital account. Thus, any change in monetary and banking system is capable of affecting balance of payments. Consequently, the variations in the exchange rate market are affected by monetary policies, which have been ignored in this paper. It may be a matter for future researches, in the individual or cross-country level.

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