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A PRAGMATIC STUDY ON WAITING LINE STRATEGIES OF AN INDIAN PRIVATE SECTOR BANK

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Abstract:

In today's fast-paced society, waiting is not something most people tolerate well. As people work for longer hours, individuals have less leisure and families have fewer hours together, the pressure on people's time is greater than ever. In this environment, customers are looking for efficient, quick service with no wait. Organizations that make customers wait take the chance that they will lose business or at the very least that customers will be dissatisfied. Waiting lines, namely, queues occur whenever the number of arrivals at the facility exceeds the capacity of the system to process them. Queues are the symptom of unresolved capacity management problems. Customers can be more or less satisfied depending on how the wait is handled by the organization. The actual length of wait will affect how customers feel about their service experience. The type of wait namely, the standard queue versus a wait due to delay of service can also influence how customers will react. The study was made by collecting data from the customers of ICICI Bank Ltd., Tirchirappalli District and it resulted in a very small degree of dissatisfaction among the customers.

Key words: customer satisfaction, waiting time, location, queue and service delivery.

JEL Classification: G21, M31.

1. Introduction

An organization should always consider customers as their foundation for the business. A customer should be considered empathetically and treated as they are the part of their business. As the customers are considered as one of the stakeholders, the service providers should maintain a very cordial relationship with them. The intermediaries should recognize that their remuneration depends on the number of customers they gain for the employer. The ultimate in customer satisfaction is giving customers exactly what they want. The organization should satisfy the customers to make repeated purchases with them. This will result in the increased cash flow of the organization. Satisfaction = Perception – Expectation.

If the perception exceeds the expectations of the customers, the service provider gets a satisfied customer and vice-versa. Rarely, the perception will be equal to the expectation of the customers. The service manager has to manage and concentrate always on the perception, expectation and the actual service rendered to their customers.

Customers consider waiting time as frustrating and they think that they can do many things while waiting. To minimize the waiting time, any organization must design their service process properly which is practically difficult.

Conclusion

The waiting time can be reduced by identifying different locations and increasing the number of queues in a line. The customers must be informed about the relative position in the queue to ascertain the length of waiting time. The bank should also provide adequate information and reason for making a customer to wait in a queue. He should also be informed about the upcoming services he is supposed to receive in near future. This will reduce his mental fatigue of waiting in a line. He will be having his own mental expectations about the services to be received. They should also be provided with adequate spatial requirements to make them feel comfortable. This will not result in mental irritation and avoid the drop-out of the transactions.

The bank should also try to spread the demands over the periods to avoid huge accumulation of demand at any one point of time. This will also result in reduction of waiting time. When the demands are spread over, the bank should also guarantee that it will provide the services in future without any hindrance, if it is booked in advance. Thus, the advance booking help the bank to shift the potential demand to less desirable time periods.

Regarding the waiting time for receiving the service, the customers opines that the intermediaries of the ICICI Bank show difference among them based on occupational pattern and the income level. Therefore, the bank must instruct its intermediaries to extend the same level of service to them. As the customers are dissatisfied with the service of receiving cash above Rs.50,000, issuing demand draft and pay order, the bank should take initiative to improve the services up to the standard norms as prescribed by the bank.

Amudha Ramachandran and Vijayabanu Chidambaram (2012) have stated that attraction, retention and enhancement of the customer relationships are essential to maintain a base of delighted and committed customers who form the basis for the sustainable competitive position of the bank. So, the bank should educate the employees regarding the priority order of service delivery performance. The bank should create confidence in the minds of the customers that they are properly taken care of their business and emphasize the courteous behaviour of the intermediaries of the bank towards the customers.

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META-ANALYSIS COMBINING CLUSTER ANALYSIS AND MULTIDIMENSIONAL SCALING – CATEGORISATION OF SIGNS OF THE EUROPEAN UNION COUNTRIES´ INSOLVENCY

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Abstract:

Insolvency belongs to the basic indicators representing financial situation of practically all enterprises. In spite of the fact that promising development of several macroeconomic indicators suggests that economy as a whole have overcome the economic crisis and since 2010 its recovery clearly occurs, the increase of unpaid liabilities still persists. In this paper we performed the analysis of data indicating insolvency of the EU countries for year 2012. Within our statistical meta-analysis, we compare multiple methodological approaches: variants of agglomerative hierarchical cluster analysis; outputs of method k-means; k-medoids; and fuzzy c-means. The obtained results are qualitatively compliant with multidimensional scaling. Following the structure of their insolvency indicators, the countries were divided into three basic groups. The obtained classification is quantitatively compliant with current macroeconomic idea about gravity of debt crisis in various EU countries.
.

Keywords: indebtedness, insolvency, receivables, delayed payments, private sector, cluster analysis, multidimensional scaling, macroeconomic consequences

JEL Classification: C32 E43, E52.

1. Introduction

The terms insolvency and bankruptcy are as ancient as enterprising itself. In general, it means that it is a situation in which entrepreneurs are not able to pay liabilities by their due dates. The practice shows, and literature confirms, that insolvable are those, who have more than one creditor - more than one liability - that exceeded 30 days after its payment due, while those liabilities are not covered by their assets Borovský (2001). In Europe, each and every day, dozens of small and medium enterprises bankrupt due to their unpaid bills. Very often the firms have a huge amount of their money „drowned" into unpaid invoices; and thus are no table to pay their own liabilities. The current situation is serious. Several facts point to the need to solve this situation and to introduce measures in this specific domain. In fact, near to the half of enterprises in the EU doesn´t attain the fifth year of their existence. In Europe, 200,000 enterprises bankrupt per year in average. This directly leads to the loss of 1,7 millions of working opportunities. Approximately 50,000 enterprises (1% out of 5 millions) per year become debtor, and at least twice the number of them are creditors abroad. The European Union has responded to this situation with a set of measures submitted in December 2012, with aim to modernize the rules of insolvency proceedings European Commission (2011). Modernization of the EU rules concerning insolvency targets mainly the ease of doing business and providing second chance to entrepreneurs at risk. This modernization was identified as the key measure for improvement the functioning of local but also foreign markets. Because the conditions and possibilities of enterprising are different depending on countries, it is thus important, after analysing their common signs, to classify them into several groups. For this classification, we used cluster analysis. We also made qualitative comparison of these results with those of multidimensional scaling.

The paper is divided into five parts. In the second part we explain the methodological procedures and present the basic information about our data structure. The third part attends to present literature review on the subject and to define its key terms. In the fourth part, we analyses the results, as well as some specific details of the data analysis. In the fifth part, we compare the results of cluster analyses with results of the multidimensional scaling; as well as we present there our concluding remarks.

Conclusion

Late payments cause a set of issues; starting with corporate insolvency, through bankruptcy, to lowered State budget revenues and slowing of economic growth. Paradox remains however that governments deepen the issue by their own lack in payment discipline, instead of fighting this phenomenon. In majority of the EU countries, the delay in payment of the public sector is higher than the one of the private sector. The causes are not of economic nature. The lack of payment discipline depends, in each country, on local culture, compliance with ethical rules, and administrative effectiveness of State institutions. The EU is aware of negative consequences of the late payments, and this is why it stated, in its directive about late payment, that due of the invoiced in public sector shouldn´t be over 30 days, and between enterprises over 60 days.

Nowadays, following the directive, only three countries fulfil the requirement of the directive, which is to pay its liabilities within 30 days (but only in the private sector), and these countries are: Bulgaria, Estonia (both from 2nd cluster), and Finland (1st cluster). When it comes to the time period for payment of invoices in the private sector, in 2012, this requirement was not respected by 5 EU countries from the third cluster: Cyprus, Greece, Portugal, Spain, and Italy. All of the other countries met the requirement. The new European directive is a step forward in acquiring a better payment ethic in the whole Europe; and thus enables entrepreneurs to help lead Europe towards a solid economic recovery. The methods combined in the paper consistently show that microeconomic indicators used can be translated into a depth situation of countries on macroeconomic level. It is thus possible to suppose that increased tensions to improve payment discipline of the third cluster (Cyprus, Greece, Ireland, Portugal, Slovenia, Spain, and Italy) on microeconomic level could significantly influence the resolution of the debt crises in future. By means of the meta-analysis method proposed here, the countries were divided into the so called uncertain countries, of whose affiliation to clusters was highly similar. At the same time, this classification could serve as a recommendation for directing foreign investments into countries with improving or average payment discipline. From the data visualization by multidimensional scaling, it is possible to better determine countries with similar payment conditions. In the future we would like to deal with methodology for design of the index of payment discipline, which would be based on the classification by using the using approaches introduced here. Let us mention briefly also the future challenging task we face - that for suitable time series macroeconomic data (of similar structure as studied here) there will be an opportunity to apply the original distance-based methodology that has been recently developed by Horváth, Šulíková, Gazda, and Siničáková (2013).

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INTEREST RATE TRANSMISSION MECHANISM IN V4 COUNTRIES

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Abstract:

The paper focuses on analysis of monetary policy transmission mechanism in V4 countries and EMU12. The aim of analysis is to verify the reaction of endogenous variables in case of monetary policy shocks with an emphasis on transmission through interest rate channel and its impact on inflation, nominal effective exchange rate and gross domestic product. The effects of interest rate shocks on selected variables were identified by estimating VAR model that uses Cholesky decomposition of innovations.

Keywords: interest rate channel, monetary policy shock, V4 countries, VAR model.

JEL Classification: C32 E43, E52.

1. Introduction

The four central European countries, Slovak Republic, Czech Republic, Hungary and Poland, are often referred to as the Vysehrad countries, or briefly V4 countries. When we look closer at their macroeconomic policies and the evolution of their economies over the last two decades, it is possible to find many similar features. Each of these countries had to overcome the so-called transformational depression that was followed by a fall of GDP growth rates, a considerable rise in consumer prices as well as in unemployment rates. V4's central bankers opted for traditional monetary anchors such as monetary or exchange rate targets. However, the on-going process of liberalization shifted the focus of monetary policies towards "new strategies" based on direct or indirect targeting of the inflation rates and exchange rate regimes were modified to less strict forms, such as the managed floating. The constantly changing macroeconomic environment together with a high degree of openness and strong foreign trade links still intensify the impact of foreign factors what consequently reduces the autonomy of national monetary policy.

This paper will focus on analysis of the transmission process of monetary policy in V4 countries as well as for the EMU12 ("first, original" members: Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Luxembourg, Netherlands, Portugal, and Spain). Group of V4 countries consist of one EMU member (Slovakia) and three non-EMU members that can still use their own national monetary policies. Therefore we decided to verify the similarity of individual responses to monetary policy shocks of V4 countries and EMU12. By comparing these responses we would be able to assess the impacts of the economic and financial crisis on the transmission process of monetary policy in these countries. The transmission process will be observed via traditional channel of the interest rate with the use of vector autoregression (VAR) model. VAR model allows computing impulse-response functions for estimation of interest rate pass-through to macroeconomic variables. The paper is structured as follows. Firstly, an overview of the literature is presented. The next section explains the VAR model which is followed by the section with data and results. The last part offers conclusions of presented analysis.

Conclusion

The interest in exploring transmission mechanisms of the monetary policy has increased in recent years. Many authors have noted that out of the various transmission channels the traditional interest rate channel was the most affected by the financial and debt crisis. The crisis has also restarted a debate on the EMU accession and the advantages of own monetary policy as macroeconomic and anti-shock tool. A question that remains is whether it is now possible to talk about independent monetary policy in the condition of EU member country. Recent negative developments after 2008 still verify the ability of monetary policy to mitigate its impacts. In EMU, it can be seen in the case of the effects of single monetary policy and the deepening of the asymmetries between member countries. It is now possible to evaluate the monetary policy independence of small and open non-member country and its influence on macroeconomic developments. In current situation, central bank authorities of the countries such as Czech Republic, Hungary or Poland still consider important to preserve an independent monetary policy.

The analysis focused on the monetary policy efficiency through interest rate transmission channel. The basic variables of the model were GDP, inflation and exchange rate, i.e. variables that are generally used in the central bank monetary rules. The aim of the analysis was to evaluate the efficiency of the interest rate channel in EMU12 in general as well as in V4 countries. Our analysis was based on several expectations. We assumed that negative developments related to the crisis can distort the transmission of monetary policy effects on macroeconomic variables and that the impact of monetary policy changes are transmitted to the economic variables only partially or significantly lagged. The estimations were made using the vector autoregression model with the Cholesky decomposition of innovations.

The results for whole EMU12 and for V4 countries are not entirely identic. Especially in shorter period of 2002-2007 the differences are more visible. The longer period of 2002-2012 shows the negative influence of crisis on the results of all monitored countries; the responses of variables on interest rate shock in EMU12 and V4 countries have become more similar. In all cases it was confirmed that other transmission channels of monetary policy played an important role. In regard to the high level of openness and monetary strategy applied in economies of V4 countries, it is possible to assume the important role of exchange rate and inflationary expectations channel what may weaken the transmission through the interest rate channel.

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REPRESENTATION OF STRUCTURED FORMS FOR THE SAME PATH

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Abstract:

The concept of labelled graph and the term of structured path were introduced in ([1]). Using the definition for the term of structured element and elementary structured element for a path in a labelled graph, the information contained in a labelled graph can be transposed into a representation of labelled tree type. In the present paper we try to explain the case of several structured form for the same path, are needed.

Keywords: structured element, elementary structured element, accepted set, structured form.

1. Introduction

An important concept in the field of Artificial Intelligence was named Knowledge Representation and Reasoning System (KRRS). Such a system is a collection of components cooperating between them and the whole system is able to reason in order to give the answer of an interrogation (Wagner, 1994). Among these components, the knowledge base and the answer function are considered as main components. Each knowledge base uses a knowledge representation method (Popîrlan, Ștefănescu, Ștefănescu, 2011). One of the most known methods for knowledge representation is the graph-based representation of knowledge.

In a graph-based representation an entity is given by a pair of nodes and a link between them. In this kind of knowledge representation, a node is an object characterized by a set of attributes and the link between two nodes is specified by the relation parent-child. An overview of these methods of knowledge representation can be found in (Way, 1991). The semantic is given by specifying the concrete meaning of this notational convention.

The basic concept used in this paper is that of labelled graph denoted by $G = (S, L_0, T_0, f_0)$. The elements of G are defined as: S is a finite set of node; L_0 is a set of elements named labels; T_0 is a set of binary relations on S and f_0: $L_0 \rightarrow T_0$ is a surjective function.

Conclusions

In general, in order to specify *k* structured forms for a path $d = ([x_1, ..., x_{n+1}], [a_1, ..., a_n])$ we consider the set B_+ containing the common information such that $((x_i, x_{i+1}), [1]) \in B_+$ for $i \in \{1, ..., n\}$, the element $((x_1, x_2), [n]) \in B_+$ and other information concerning common structured form of the partial paths in *d*. Then, for each $j \in \{1, ..., k\}$ we define the set C_j including the "specific" information for the j^{th} structured form of d. We obtain a complete description if and only if $X_j = B_+ \cup C_j$ is an accepted set for d, $j \in \{1, ..., k\}$.

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COUNTRY RISK MODELLING USING TIME-VARYING FUNDAMENTAL BETA APPROACH: A VISEGRAD GROUP COUNTRIES AND ROMANIA PERSPECTIVE

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Abstract:

Financial instability is a recurring, macroeconomic phenomenon which has been manifesting itself in form of the Great Recession since 2007. The paper pursues the question of how financial instability affects the risk of a country. We discuss the relation of the risk of a particular country to international investment activities and refer to unique risk faced by foreign investors when investing that country. In the study we intend to identify the relationship between country risk indicators, local and global, and so called fundamental beta coefficient from the capital asset pricing model. As we have found out, the global risk factors have greater influence on their betas than local factors. Betas are sensitive to the consequences of economic development like recent economic crisis. In almost all of observed cases the Betas reached their maximum in the period of 2008-2009. Furthermore a rapid increase of betas in Hungary and Romania correspondents to the time of official request for the financial assistance and can be used as case of Beta sensitivities.

Keywords: systematic risk, time-varying beta, risk factors, Visegrad group countries, Romania, Equity Markets

JEL Classification: C51, C52, G12, G32

1. Introduction

Since beginning of the 1990s, the world economy has been characterized by its intensifying globalization. As a consequence, the structure and size of the international capital flows has been changed rapidly. The rapid change has already highlighted the importance of global risk factors for the management of firms and organizations, as well as for the sustainable socio-economic development of countries. Country risk analysis has evolved as a major research topic within the fields of economics and finance during the past three decades.

The significance of the country risk analysis is also highlighted through last development in the global environment, where many developed and emerging countries have been hit hard by the crisis. Also Visegrad countries and Romania have been affected, but in deferent manner. We provide an evidence of the three Visegrad countries and Romania. These four countries have been selected and analysed using specific fundamental Beta approach.

All of them are the EU member state countries and currently are not a part of the Euro area countries - Czech Republic, Hungary, Poland, and Romania. Two of them were hit hard in the 2008-2009 by the global economic downturn, Hungary and Romania. In the case of Hungary, at the end of 2008, the Emergency Financing Mechanism of the International Monetary Fund was used to help provide financing because the country faced an exceptional situation that threatens its financial stability. Affecting with the global economic downturn, Romania received in February 2009 a loan by the IMF in the amount of 17.1 billion USD.

The paper is organized as follows: The first section shortly describe the country risk term and the theoretical background and genesis of the time-varying fundamental Beta approach. In the second section we employ time-varying fundamental Beta technique using the time series and multiple linear regression analysis to analyse and model Beta in each country. In the third section we discuss achieved results in context of other researches and we make a summary of them.

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Conclusion

Between 2000 and 2007, the CEE countries were one of the fastest growing regions in the world. But in 2008-2009 almost all of them have been affected hard by the crisis. In our research, four CEE countries have been selected and analysed using specific fundamental beta approach - Czech Republic, Hungary, Poland, and Romania. Two of them were hit very hard in the 2009 by the global economic downturn, Hungary and Romania.

We have shown the global risk factors have greater influence on their Betas than local factors. We have also shown Betas are sensitive to the consequences of economic development like recent economic crisis. In almost all of observed cases the Betas reached their maximum in the period of 2008-2009. Furthermore increase of Betas in Hungary to 1,475 and Romania to 2,821corresponds to the time of official request for the financial assistance and can be used as case of Beta sensitivities.

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A COMPARATIVE ANALYSE ON AMERICAN, JAPANESE AND KOREAN MANAGEMENT FROM THE POINT OF VIEW OF INTERNATIONAL BUSINESS

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Abstract

After the rapid economic ascension on international level of South Korea or the "quiet morning's country" they questioned whether the Korean management system is unique and different from other management systems such as the Japanese and American one. The answer is both "yes" and "no."

Keywords: international business, management, economy, company, employee, traditional values.

JEL Classification: F23

1. Introduction

All management systems have a common feature: they make efforts to increase the performance of an organization in the most effective way. From this point of view the Korean management shares this characteristic with the other management systems. From this perspective, we can say that all management systems operate based on the universally valid principles of planning, organization, control, management and motivation. However, Korean management is unique in its traditional values and a business approach, and it endeavours to improve the performance of their organizations in the most efficient way but in the context of traditional Korean culture (Chang Chan, Chang Nahn Joo, 1994).

Also, Japanese and American management styles are unique because they operate according to their own cultures. The Japanese and American management were chosen for comparison just because these two systems have significantly influenced the Korean management.

Conclusion

However, after the Asian crisis, the influence of foreign capital in the Korean economy grew significantly. The presence of foreign capital had a decisive influence upon the development of the Korean economy (Lee, 2000). Several explanations were given for what was called the "Asian miracle" and as a result, it is difficult to structure all these solutions in a precise way.

Despite the multitude of explanations, we can say that the answer to the rapid industrialization of the East Asian countries is the unique way in which they adapted differently to western invasion, to Western model of development. Sundry factors are assumed to have influenced this unique way of development, but the most important seems to be the strong state involvement in the processes of industrialization and economic development, due to the nationalist desire to catch up and even exceed other nations in developed of the world.

In the process of developing different policies were applied by Asian countries and because of the fact that these countries had experimented rapid economic growth in the post-war period, their evaluation was universally positive. Positive evaluations of these countries pointed out that they have entailed a unique approach of management in the development process - the so-called "Asian Model".

This approach was the subject of much debate between 80s and 90s, and they even talked about the *school of Asian management* concept (Chang Chan, Chang Nahn Joo, 1994). However, there are joint components of these countries in the development process that had a decisive impact on economy. Among these there are the worker - management relations, especially long-term employment (lifetime employment) and the involvement of as many employees in decision-making in the company as well as other components that relate directly to the manufacturing process, such as quality control and inventory management at the last moment (just-in-time inventory management).

In addition to these traits there can be identified others related to the Asian style of management, such as the fact that Asian managers tend to be specialized in technical sciences and engineering, unlike those of Western firms (Hattori, 1997). There are many characteristics which describe this unique behaviour of Asian companies, but the most important are related to the corporate profitability and management from the perspective of time. Many treaties tackle the fact that Asiatic management allows managers to focus on long term objectives such as: the increase of stock shares and of value on market, while American firms manager focus on short term objectives: increasing profit. The reason for this difference seems to be the different structure of the two typologies of firms as well as the employees' different style of work.

Asian companies have a tendency to increase employees' loyalty as members of their community dedicate their life to the firm, thus allowing management to make forecasts and schedule on long term. On the other hand, Western companies treats employees as resources that can be replaced at any time, thus discouraging long-term loyalty to the firm and forcing managers to establish and achieve short term goals. These characteristics were considered the basis of the process of Asian countries economic renaissance.

Without being a general conclusion, Korean management is rooted in the Asian type, being not necessarily implemented in schools and courses, but originating in the Asian culture of Confucianism, of the hierarchy and respect for the elderly and the wise (Song, Meek, 1998).

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*** Country data: South Korea-The Origins and Development of Chaebol

EXCHANGE RATE PASS-THROUGH TO DOMESTIC PRICES UNDER DIFFERENT EXCHANGE RATE REGIMES

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Abstract:

Responsiveness of exchange rates to external price shocks as well as their ability to serve as a traditional vehicle for a transmission of these shocks to domestic prices is affected by exchange rate arrangement adopted by monetary authorities. As a result, exchange rate volatility determines the overall dynamics of pass-through effects and associated absorption capability of exchange rate. Ability of exchange rates to transmit external (price) shocks to the national economy represents one of the most discussed areas relating to the current stage of the monetary integration in the European single market. The problem is even more crucial when examining crisis related redistributive effects.

In the paper we analyze exchange rate pass-through to domestic prices in the European transition economies. We estimate VAR model to investigate (1) responsiveness of exchange rate to the exogenous price shock to examine the dynamics (volatility) in the exchange rate leading path followed by the unexpected oil price shock and (2) effects of the unexpected exchange rate shift to domestic price indexes to examine its distribution along the internal pricing chain. To provide more rigorous insight into the problem of exchange rate pass-through to the domestic prices in countries with different exchange rate arrangements we estimate models for two subsequent periods 2000-2007 and 2000-2012. Our results suggest that there are different patterns of exchange rate pass-through to domestic prices according to the baseline period as well as the exchange rate regime diversity.

Keywords: exchange rate pass-through, inflation, Cholesky decomposition, impulse-response function

JEL Classification: C32, E31, F41

1. Introduction

Ability of the exchange rate to transfer external shocks to the national economy remains one of the most discussed areas relating to the current stage of the monetary integration process in the European single market. New European Union (EU) member countries that accepted the obligation to adopt euro have to consider many positive and negative aspects of the euro adoption especially in the view of time they need for the implementation of all necessary actions to be ready to give up their monetary sovereignty. We do not want to speculate about the approximate date of the future European Monetary Union (EMU) enlargement especially due to increased uncertainty of the economy agents in the time of the global financial and economic crisis that also worsen the macroeconomic stability in the EMU candidate countries as well as their ability to meet the Maastricht convergence criteria. On the other hand it is still convenient to analyze the wide spectrum of effects related to giving up the relative flexibility of the national exchange rates after the euro adoption. While the exchange rates of majority of the EMU candidate countries are strongly affected by the euro exchange rate development on the international markets there is still room for them to float partially reflecting changes in the domestic economic development.

Among many of impulses that the exchange rate transmits from the external environment to the national economy we highlight the price effects of changes in the foreign import prices on the domestic price indexes. The degree of exchange rate pass-through to the domestic prices emphasizes its role as the external price shocks absorber especially in the situation when the exchange rate development is less vulnerable to changes in the foreign nominal variables.

In the paper we analyse exchange rate pass-through to domestic prices in the European transition economies. Approach we employed consists of two stages. In the first stage we investigate the responsiveness of exchange rate to the exogenous price shock to examine the dynamics (volatility) in the exchange rate leading path followed by the unexpected oil price shock. By doing so we investigate a capability of exchange rate to transmit or absorb the external inflation pressure to domestic prices. In the second stage we investigate effects of the unexpected exchange rate shift to domestic price indexes to examine its distribution along the internal pricing chain. Our results contribute to understand the key features of the exchange rate transmission of the external price shifts based inflation pressures across different domestic price measures. We estimate vector autoregression (VAR) model. True shocks are identified by the Cholesky decomposition of innovations. From employed VAR model we estimate (1) responses of exchange rates in each individual country to the positive one standard deviation oil price shock and (2) responses of different domestic price indexes to the positive one standard deviation exchange rate shock. To provide more rigorous insight into the problem of exchange rate pass-through to the domestic prices in countries with different exchange rate arrangements we estimate models for each particular country employing data for two subsequent periods 2000-2007 (pre-crisis period) and 2000-2012 (extended period). This approach should be helpful to examine specific features of external inflation pressures transmission to the domestic prices according to the differences in the exchange rate commitments of monetary authorities. We suggest that comparison of results for models with different time period is crucial to understand spurious effects of the economic crisis in both exchange rate responsiveness to the external price shocks as well as pass-through effects to different domestic price measures.

Following the introduction, in Section 2 we provide brief overview of exchange rate pass-through effect. The topic is then discussed from the prospective of the fixed versus flexible exchange rate dilemma to highlight its specific features under fixed and flexible exchange rate arrangements. In Section 3 we provide an overview of the exchange rate regime evolution in the European transition economies during the period of last two decades. In Section 4 we summarize the current empirical evidence about exchange rate pass-through. While the empirical evidence about exchange rate pass-through seems to be reach, comparison of relevant studies provides results for individual countries or group of countries that we can conventionally divide in three groups - advanced, advancing and emerging markets. However, recent studies provide mixed results according to the exchange rate regimes as a crucial initial assumption or are not even taken into the account. In Section 5 we provide a brief overview of the VAR model (recursive Cholesky decomposition is applied to identify structural shocks) that we employ to examine exchange rate pass-through to domestic prices in two stages. In Section 6 we discuss main results.

Conclusion

In the paper we have analyzed exchange rate pass-through to domestic prices in the European transition economies. We have employed a multivariate VAR model for each individual country to investigate possible implications of different exchange rate arrangements on estimated results and thus to contribute to the fixed versus flexible exchange rates dilemma from the prospective of the transmission of the external inflation pressures to the domestic price inflation associated with the exchange rate conditional variability. To meet the objective we have analysed (1) a capability of exchange rate to transmit or absorb the external inflation pressure originated in the oil price shock to domestic prices followed by examination of (2) effects of the unexpected exchange rate shift to domestic price indexes to examine its distribution along the internal pricing chain. We suggest that our results contribute to understand the key features of the exchange rate transmission of the external price shifts based inflation pressures across different domestic price measures.

Our results confirmed expected lower vulnerability of exchange rates in countries with nominal exchange rate anchoring (“peggers”) to the external price shocks (this effect was even strengthened during the crisis period). Reduced exchange rate responsiveness to the external price shocks increased the transmission of the price effect to the domestic prices. This idea was supported by investigated lower dynamics of the exchange rates pass-through effect to import prices and producer prices (though not to consumer prices) in countries with pegged exchange rate regimes in comparison with “floaters” (results for the crisis period mostly highlighted empirical results from the pre-crisis period). Intensity of the price effect along the internal pricing chain revealed its reduction from import prices to producer prices though results for consumer prices were mixed. As a result, exchange rates in countries with reduced exchange rate flexibility operated more as the external price shock transmitters.

On the other hand, higher and durable responsiveness of exchange rates to the oil price shock in countries with flexible exchange rate arrangements (this effect was even strengthened during the crisis period) reduced the transmission of the price effect to the domestic prices and thus contributes to offset the expected inflation pressures originated in the negative external price shock. This idea was supported by investigated higher dynamics of the exchange rates pass-through effect to import prices, producer prices as well as consumer prices in countries with flexible exchange rate regimes in comparison with "peggers" (results for the crisis period mostly highlighted empirical results from the pre-crisis period). Intensity of the price effect along the internal pricing chain revealed its reduction from import prices to producer prices though results for consumer prices revealed its increase. As a result, exchange rates in countries with exchange rate flexibility operated more as the external price shock absorber.

Low exchange rate exposure to the external shocks under rigid (flexible) exchange rate arrangements contributes to domestic price (in)stability by reducing (accelerating) inflationary or disinflationary effects on domestic prices provided that the external source of the exchange rate volatility has non-price related origin (i.e. external supply or demand shocks). However, when exchange rate volatility is caused by external price shocks (i.e. oil price shock) then the low (high) degree of exchange rate pass-through to import prices/producer prices/consumer prices contributes to the transmission (absorption) of external price shock to import prices/producer prices/consumer prices following the price shock distribution along the internal pricing chain.

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DEVELOPMENT OF COMPUTER APPLICATION FOR RISKS ANALYSIS IN CRISIS SITUATIONS

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Abstract:

Leading an organization in a crisis time is a risky and extremely requiring action, not only for the leaders, but also for the employees. The leader needs an independent clarity and self-confidence that can be insured only by the risk management.

This work has as object the creation of a risk management system, at a project level, though it can realize an efficient administration of risks, thus the decision structures adapt themselves and respond in crisis regarding the critical infrastructural dysfunctions.

Keywords: informatics structures**,** informatics system interrogations, informatics basis, risks factors, residual risk, inherent risk, RAMV (Risk Adjusted Monetary Value).

JEL Classification: M15

1. Introduction

Leading an organization in a crisis time is a risky and extremely requiring action, not only for the leaders, but also for the employees. In order to maintain the fragile balance between necessary and possible, between what he is asking and what he is offering to his people, the leader needs an independent clarity and self-confidence that can be insured only is the risk management.

Given that the present decisions are taken considering the future events, the benefits can be enormous: to anticipating the market conditions to competitive advantage, from understanding the internal and external background of the enterprise activity to anticipating the crisis situations or avoiding the frauds.

The costs of a risk management system implementation in a company depend on the administration methods of unpredictable events. Depending on the organization profile, we can talk about risks on a project or product level, about risks that require different approaches and a different training.

The subject of this work is: the risks on a project level, as the projects are the means by which an organization fulfils its strategic plan or exercise its mission. A large number of organizations and institutes spend a lot of time and resources to develop and improve standards and methodologies for project risk management. Among these, the most common are:

- AS/NZS 4360:2004, The Australian and New Zealand Standard on risk management, developed by Broadleaf Capital International PTY LTD[1];
- IRM Standard, jointly developed by The Institute of Risk Management (IRM) [10], The Association of Insurance and Risk Managers (AIRMIC) and by ALARM The National Forum for Risk Management in the Public Sector (widespread in the United Kingdom)–adopted by the Federation of European Risk Management Associates (FERMA);
- PMBOK Guide developed Project Management Institute (widespread in the U.S.A);
- PRAM (Project Risk Analysis and Management) Guide developed by Association for Project Management[2] (widespread in United Kingdom).

[1] *http://www.ucop.edu/riskmgt/erm/documents/asnzs4360_2004_tut_notes.pdf*.
[2] http://www.apm.org.uk/

The risk management on a project level is not only an exercise of risk identification, but also: the planning of the minimizing measures for the risk apparition and impact probability, including those measures in the project plan (as activities and costs) for those cases when the prevention measures are failing, nominating the ones in charge with the monitoring of every single risk, the permanent monitoring, risk recalculation and escalation in case a risk is activating.

Conclusions

The risk analysis, with the informatics tools, has as object the identification of all the factors that can threaten the functional or non-functional constraints obedience. A correct risk identification and management can avoid causing effects in the late development phases and assures a predictable controlled evolution of the project.

The project risks are identified and analysed, a Risk Management Plan is prepared, by illustrating how those risks will be reduced or avoided. If the risks are inevitable and their impact is significant, special plans will be developed for them.

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TRANSMISSION OF INFLATION AND ECONOMIC GROWTH IN THE EURO AREA IN THE RESPECT TO A SINGLE MONETARY RULE

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Abstract:

The objective of the research is to investigate inflation and economic transmission among the Visegrad countries (Czech Republic, Hungary, Poland and Slovakia) and the euro area. Narrow external trade and integration relations suppose significant level of transmission within the observed countries. Level of (a) symmetry among inflation and economic growth shocks can be crucial for a single monetary rule application. Importance of this issue is not relevant only for Slovakia, the euro area member since 2009, but for the Czech Republic, Hungary and Poland, too, as the future euro area member. Estimation of inflation and economic growth transmission is based on the vector error correction model. Variance decomposition enables us to observe these interdependences among particular countries throughout several horizons. Dominance of the euro area is more obvious in the case of economic growth. Therefore, from the perspective of the Visegrad countries, a potential single monetary rule should put more weight on economic growth than inflation. However, due to an endogenous argument, level of these interdependences should increase gradually in time. The paper was elaborated within the project VEGA 1/0973/11.

Keywords: inflation transmission, economic growth transmission, the euro area, the Visegrad countries, monetary rules.

JEL Classification: F15, F42, E52.

1. Introduction

Monetary rules versus discretionary monetary strategies are often discussed in connection with the time inconsistency problem of monetary policy. The time inconsistency issue is essentially based on the contributions by Kydland and Prescott (1977) and Barro and Gordon (1983). Their conclusions stress macroeconomic advantages of monetary rules comparing with discretionary approach. According to their findings monetary rules help to reduce inflation without economic output decrease.

However, the role of monetary rules can be questionable in terms of economic crisis and monetary integration. Consequently, a unique monetary policy e.g. under the form of a unique monetary rule can be problematic. The aim of the paper is to consider implementation of a single monetary rule from the perspective of the Visegrad countries (V4), i.e. future euro area member states (the Czech Republic, Hungary and Poland) and actual euro area member (Slovakia). The Visegrad region consists of countries with quite similar economic background and integration process. The countries have experienced transition process since 1989 and they joined the European Union in 2004. Slovakia adopted euro in 2009 as the first country from the Visegrad group. Other three countries should be its followers in the coming years. On the one hand, recent economic evolution has been similar in these countries. On the other hand, their particularities, e.g. at the level of external openness, production structure diversification, etc. can lead us to different results. Is there interdependence among output and inflation evolution in the mentioned countries and the European Monetary Union? Would be a unique monetary rule or central bank reaction function based on inflation and output indicators convenient for the Visegrad countries as future or actual members of the European Monetary Union?

The aim of the paper is to evaluate cointegration of inflation and output in the Visegrad countries and the euro area. These two indicators are crucial in the most of monetary rules as well as in the Taylor rule - one of the best known rules (Taylor, 1993).

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However, the role of monetary rules has been contested by certain economists (Belke, Klose, 2011) due to economic crisis. Others (Taylor, 2009) claim that negative impacts of economic crisis would be weaker under monetary rules application.

The implementation of monetary rules in the European Monetary Union is even more questionable as several authors (Bucur, Ancuba, 2012) have doubts about the euro area optimality because of inflation and output shocks asymmetry. Others (Liapis, 2012) suggest fiscal integration in the euro area to avoid future financial and debt crises. Consequently, this research takes into account period of economic crisis and monetary integration, too.

Conclusions

In conclusion, HICP transmission process between the euro area and the V4 countries on the other hand is much weaker than HICP transmission within the V4 countries. As for GDP, the opposite seems to be true. Mutual interdependence of HICP evolution in the V4 countries can stem from similar disinflation and transition process in 1990s as well as almost equivalent purchasing power. Significant impact of the euro area economic growth on the V4 growth is caused by the V4 dependence on the euro area trade, demand and investments. Nevertheless, Slovakia represents an exception due to its recent integration to the European Monetary Union.

Application of a single monetary rule seems to be ambiguous. While economic growth shocks are relatively symmetrically transmitted from the euro area to the V4 countries, inflation shocks are transmitted mostly only within the V4. This interdependence is obvious also during current financial and economic crisis. Therefore, in respect to the observed countries, a common monetary rule should put more weight rather on GDP or output gap than on inflation gap. Yet, in line with endogenous argument this situation should change in the future. We can expect that inflation shocks will evolve more symmetrically also due to increasing purchasing power in the V4 countries.

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DECISION-MAKING PROCESS AND CONSENSUS FORMATION

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Abstract

The aim of the paper is to draw up a model of consensus formation on problem solving in a group in relation to the decision-making process. The model will help to enhance our understanding of group behaviour. First, the main elements and relations of the system are identified and described and a mathematical model is created using mathematical equations. Second, impact of the changes of independent variables on dependent variables is tested and compared to our experience. Some conclusions resulting from the proposed model and its testing are also interpreted.

Keywords: model, problem solving, work group, consensus, decision-making.

JEL Classification: M12, M54, J53

1. Introduction

Human resources are the key factor in searching for increased productivity of the organization (Stverkova *et al.* 2012). It is also well known that the evolution of the “classic management model” towards ever greater specialization of labor, centralized decision-making and labor fragmentation resulting in a thicket of collaborative relationships has created growing problems in addition to rising profits. For this reason, management models aimed at boosting the integrated efforts of all employees in the organization toward eliminating these issues are fervently sought. In small and microenterprises, the cognitive phase of the management cycle is exclusively within the purview of the person at the top of the organizational hierarchy – the owner, entrepreneur, director, CEO or authorized representative. The same is true of managerial decision-making, often including the intervention phase, where the task is to implement the decisions adopted (Adair 2013). By contrast, in larger organizations, a greater number of persons normally participate in the activities and procedures which make up the managerial cycle. It is only a slight simplification to denote this process as group- or team-based decision-making.

Conclusion

By way of conclusion, the individual transfers analysed and used to describe the nature of the introduced model are included in Table 1.

This provides a clearly laid-out overview of how a particular element (variable) must be activated so that the decision-making process taking place in practice and being analysed may be evaluated as a rational process and so that it becomes possible (on the basis of empirical knowledge obtained from the analysis) to use comparison and determine where in the organization’s decision-making processes corrections must take place to allow processes to attain the requisite quality.

Table 1 - Transfers describing the nature of the “consensus formation in group-based problem solving in the decision-making process” system

Resulting transfer	Partial transfers creating the resulting transfer
$F_1 = \frac{\partial f}{\partial T_k(t)} < 0$	$\frac{\partial f}{\partial T_z(t)} < 0; \frac{\partial T_z}{\partial T_k(t)} > 0$
$F_2 = \frac{\partial T_k(t)}{\partial D(t)} > 0$	$\frac{\partial T_j}{\partial D(t)} > 0; \left(\frac{\partial M_k}{\partial T_j(t)} > 0 \wedge \frac{\partial T_k}{\partial M_k(t)} > 0\right) \vee \left(\frac{\partial M_k}{\partial T_j(t)} < 0 \wedge \frac{\partial T_k}{\partial M_k(t)} < 0\right)$

$F_3 = \frac{\partial T_k(t)}{\partial S_s(t)} > 0$	$\left(\frac{\partial M_k}{\partial T_j(t)} > 0 \wedge \frac{\partial T_k}{\partial M_k(t)} > 0\right) \vee \left(\frac{\partial M_k}{\partial T_j(t)} < 0 \wedge \frac{\partial T_k}{\partial M_k(t)} < 0\right)$; $\left(\frac{\partial T_j}{\partial S_v(t)} > 0 \wedge \frac{\partial S_v}{\partial S_s(t)} > 0\right) \vee \left(\frac{\partial T_j}{\partial S_v(t)} < 0 \wedge \frac{\partial S_v}{\partial S_s(t)} < 0\right)$
$F_4 = \frac{T_k(t)}{V_R(t)} > 0$	
$F_5 = \frac{dS_{sp}}{dT_{jp}}$	$\frac{\partial h}{\partial T_j(t)} < 0$; $\frac{\partial h}{\partial S_s(t)} < 0$
$F_6 = \frac{dS_{sp}}{dV_{Rp}}$	$\frac{\partial h}{\partial V_R(t)} > 0$; $\frac{\partial h}{\partial S_s(t)} < 0$

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OPERATIONAL RISK IN CONTEXT OF SLOVAK BANKING SECTOR

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Abstract:

The article deals with the analysis of operational risk in commercial banking in Slovakia. The importance of operational risk has increased due to Basel II including capital requirements for operational risk in new concept of capital adequacy. The aim of this paper is to quantify the relationship between operational risk and selected variables in terms of commercial banks in Slovakia. First part analyses the Slovak banking sector in terms of capital adequacy and capital requirement for operational risk. In analytical part we examine with help of regression models the relationship between operational risk and selected variables, to find out what are the key factors affecting operating losses in commercial banks.

Keywords: operational risk, banks, Basel II, Slovak Republic, statistics.

JEL Classification: E50

1. Introduction

Developments in the field of operational risk are really quick, but banks usually lack reliable long-time series of data on operational losses, that could help them in strategy development (Vejačka and Vincová, 2009). Currently, there are several databases monitoring certain banking sector areas (ORX, RiskBusiness), but the problem is that data provided are not fully comparable with each other. As McAleer *et al.* (2009) demonstrated, procedures for choosing a model to measure market risks have changed after the impact of financial crisis in years 2008 - 2009. Authors focused on optimal model selection for measuring market risk in banks, considering a combination of conservative and aggressive risk management strategies and recovered impact of Basel II on banks' risk management. Using Standard and Poor's 500 index authors modelled impact of Basel II on risk management during financial crisis. The situation is similar for models for estimating operational risk that are currently available. Lot of banks is using only basic indicator approach or standardized method and advanced models are still being evolved. At the present, there is still no proven largely used that could and would be incorporated into the first pillar of Basel II. In next section we analyze Slovak banking sector from point of view of capital adequacy and own resources with attention to operational risk. Relationship between gross income and variable expressing the size of the bank is identified and a detailed analysis of a particular commercial bank operating in the country is carried out.

Conclusion

Most banks located in Slovakia uses BIA or TSA methods for operational risk measurement. Basel II assumes in these two methods linear relationship between operational losses and bank size. Gross income acts as a variable expressing the size of operational risk. Therefore aim of the article was to find out what is dependency ratio between gross income and monitored variables.

Based on performed analysis we come to conclusion that a change in personnel costs increase (PC) of 1 unit causes increase of gross income (GI) of 1.331 units. The biggest impact on change of gross income has increase of IT cost), which will cause gross income (GI) increase change of 1.405

units and net profit (NP) increase change by 1. Therefore it is necessary for operational risk management to pay attention to these factors.

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MACROECONOMIC ANALYSIS OF LABOR MARKET PERFORMANCE: THE CASE OF THE SLOVAK REPUBLIC

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Abstract:

The paper deals with development of economic and labor market performance in the Slovak Republic. Consequences of the economic crisis on the labor market, respectively on unemployment are also discussed in the paper. During the crisis, real gross domestic product decreased in the Slovak Republic. Massive drop of gross domestic product led to increase in the unemployment rate. We also compared Slovak economy with another EU New Member States.

The main question is if this process was also seen at regional level. The unemployment rate differed significantly among the Slovak NUTS 3 regions during the period between 2005 and 2012. According to previous studies high unemployment is caused by drop in economic performance or by some structural problems in the region. During economic growth the unemployment rate was decreasing and during economic downturn it was increasing. We used monthly seasonally adjusted data during the observed period between the years 2005 and 2012. In total, we had 96 observations. We also applied the Hodrick-Prescott filter for estimating the natural rate of unemployment. This method is often used for estimating the potential output and is possible to use in the case of unemployment. Our empirical results show that in most regions the real unemployment rate was lower than the natural rate of unemployment during the pre-crisis period. In other words, it means that the Slovak labor market was in positive unemployment gap. However, this gap was not the same in all regions.

Keywords: Hodrick-Prescott filter, natural rate of unemployment, NUTS 3, regional disparities, Slovakia.

JEL Classification: E01, E24.

1. Introduction

One of the key macroeconomic indicators is the unemployment rate which shows labor market performance. The traditional understanding means that if this indicator is increasing, labor market performance is worsening and vice versa. In addition, laborlabor market development is closely associated with the economic cycle and we can say that economic performance influences the situation on the labor market. A deterioration of labor market performance could be also associated with a widespread expansion of the informal economy (Gomes and da Silva, 2009). Moreover, sufficient labor market performance is subject to a corresponding economic performance. The past economic crisis has hit the European Union Member States´ labor markets especially hard. Unemployment has been a recurrent problem in most European Union Member States including the Slovak Republic for the last decades and it has become a major concern among not only policymakers but also the society as a whole.

The aim of this paper is to compare labor market development in the Slovak NUTS 3 regions in the period between the years 2005 and 2012. We also compare development of the registered unemployment rate in comparison with the natural rate of unemployment. For this purpose, we applied the Hodrick-Prescott filter as the method how to estimate the natural rate of unemployment. The paper is structured as follows: the introductory section deals with methodological-theoretical aspects of the natural rate of unemployment and its relationship with the real unemployment rate and economic performance. In the second part, we described the method (the Hodrick-Prescott filter) used in the paper and in the third, empirical, section, we compared labor market development among the Slovak NUTS 3 regions and the last part concludes.

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Conclusions

The aim of this paper was to examine development of labor market performance, especially in the regions during the period 2005–2012. We compared development of the registered unemployment rate and the estimated natural rate of unemployment. We applied the Hodrick-Prescott filter (HP filter) for estimation the natural rate of unemployment. This method is quite frequently used to filter the trend and the cyclical time series. Research in this study is based on regional monthly data between the years 2005 and 2012 (registered unemployment rate) which were published by Ministry of Labor, Social Affairs and Family of the Slovak Republic. As is evident from the analysis the Slovak labor market was in a relatively strong positive unemployment gap before the crisis of the real economy.

We argue that the decline of labor market performance during the crisis was the first step to return to a state of long-term equilibrium. This argumentation may seem at least controversial, but if we look at the situation before the outbreak of the economic crisis, then we can see that the Slovak economy was in a relatively strong expansion. This resulted in usage the production factors (especially labor) with the too much intensity in the Slovak Republic, and it was untenable in the long-run view. We found out the difference between the estimated natural rate of unemployment and the unemployment differed among the regions. We found that the positive unemployment gap was lower in the problematic regions like the Bánskobystrický, Košický and Prešovský region.

These findings suggest that these regions still have to face some structural problems and the labor market is not as flexible as in the rest of regions. In addition, we also found that the natural rate of unemployment has shifted permanently higher in comparison with the pre-crisis period.

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