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THE EFFECT OF CHANGE IN MAIN ECONOMIC FACTORS
IN CHINA AND OECD COUNTRIES

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CONTENTS

1. INTRODUCTION

The study analyses the main economic developing trends of the highly developed economies and China by several economic variances namely the GovDebtGDP (Average Central government debt, total in % of GDP 2000-2014), GDPEmployed (GDP per Employed from 2000, 2014/2000), GDPGrowth (Average GDP growth rate between 2000.-2015), BalaPayInGDP (Average of Balance of Payment in GDP in %, 2005-2015), LabourProd (Average Labour Productivity in 2000-2015), ConsPrice (Average of consumer price change, in 2000-2011 in %), TaxRevenue (Average Tax revenue in % of GDP 2000-2014), FDIinFlow (FDI Inward 2005-2015), FDIoutFlow (FDI Outward 2005-2015) and BalanPayment (Balance of payment 2005-2015) These economic variances have correlations and significances based on the economic differences and similarities among 30 selected countries most of them OECD countries and EU member states with China.

The majority of the EU member states are also member states of the OECD, as organization for the highest developed economies of the world economy. The 30 selected countries including China and 29 selected mostly OECD and EU member states, namely Australia, Austria, New-Zealand, Japan, USA, Canada, Korea (Republic of), Israel, UK, Germany, France, Italy, Mexico, Brazil, Norway, Switzerland, Turkey, Sweden, Finland, Denmark, Spain, Netherlands, Belgium, Poland, Czech Republic, Hungary, Greece, Portugal, Slovak Republic. These countries are form four continents, namely Europe, Asia, North- and South-America and Australia.

The reason of the topic in the Dissertation is that at present the most of the OECD (Organisation for Economic Co-operation and Development) countries including the most of the European Union (EU) and China have important role in the developing process of the world economy and also the economic cooperation among these selected 30 countries has considerable influences on the actual changes of the world economy. Their cooperation effects on the technological development, the economic growth of the world economy and their owned economies and also the setting up financial connections to strengthen the mutual foreign economic relations to continue financial stability and their investment in these

selected 30 countries and rest of the world economy even by system of FDI (Foreign Direct Investment). For the latest two decades China has strengthened its economic growth and its developing trends and its influences on the world economy. Also China has implemented very important and attractive economic results, which can be described and analysed by the economic variances presented in the Dissertation. Additionally to describing Chinese economic growth and conditions these economic variances also help to understand and know some specifies, similarities and differences of the selected countries' economies. Also there is a large economic competition between US and China for the first or second economic position in the world economy. These economic analyses connecting with ten economic variances used in the Dissertation can help us to understand how the economic position and conditions of China are changing to strengthen its world economic influences.

Therefore it is important to analyse the general economic conditions of the selected 30 countries including most the OECD member states and China. Also China has some more positive economic results, which are missing in other developed economies, for example China has less government debt in GDP, increasing GDPEmployed, increasing GDPGrowth, less increasing TaxRevenue and strengthening positive balance of payment (BalanPayment) against the other highly developed economies.

Earlier I analysed the economic growth and the GDP structure based on the different economic sector and branches in China concerning the FDI inflow into the China and the economic activities of China into the world economy and the South-East Asian and Pacific regions. My earlier scientific experiences and knowledge collected by me could become possible to be built into a dissertation.

In spite that China has not been member state of the OECD, the economic role of the China has considerably very much increased for the latest decades in the world economy, therefore Chine should be for analysing within the 30 selected economies for extending the international compare at the level of the possible world-wide side. The importance of the research is, because of the selected countries mostly developed one of the world economy, therefore their performance has determine the role for the developing trends of the world economy and for the rest of the world. The SPSS statistical analysing system demands that if I would like to analyse economic processes or trends by wide-side method system, the

researcher should use wider statistical data-base concerning the economic variances as the most important elements determining the economic process of economies, as I used in my scientific study. But each economic variance needs for three country, therefore ten variances demand 30 countries. If I do not use 30 selected countries, the SPSS statistical system cannot implement wide-side compare among selected economies based on the economic variances. There will not be logical conception in my analyses from approach of the SPSS system.

The reason of analysing Chinese economy is that China could have realised a fast economic growth for the last thirty years. Also it is important that in China, as the second largest economy of the world economy how the real DGP has realised its changes based on the different economic variances. Also every changes of this economic activity of China has deep effect on the world economy. China has very strong investment activities, which can be characterized by 38,0 percent as average share of GDP between 1980-2009. The investment as share of GDP in China has increased from the level of the investment's average share of GDP to 48 percent for short time. The trend of the investment share is very considerably large one and it has consequently been going on for longer time by decades in XX and XXI centuries. The considerable large investment can result very intensive economic and real GDP growth in China. The opposite to the investment share of GDP the export share of the GDP has been at the average level of 18,3 percent of GDP before 2009, but by the end of 2009 also this export trend was strong and increased to 25 percent of GDP. Naturally this export as share of GDP cannot be so high, because the domestic national market has been very-wide side, in spite that the saving has been at high level and the private consumption has been at low level in China for several decades in both of centuries (Török, 2015b; World Bank Group, 2015).

China had become since 1990, an energetic part of a rapidly growing and globalizing region of the world economy and this country is now the main driver of regional and global growth at the international level. The economic growth focuses on developing export oriented manufacturing branches, based on which other Asian countries became suppliers or subcontractors for providing different inputs, for example capital and technology (ASEAN+3, 2012; World Bank Group, 2015 and Drysdale – Huang, 1997 and Commission on Growth and Development 2008). *A growth rate similar to that of the past 25 years will allow China to overtake the United States as the world's largest economy during the 2020s,* putting North

America, the European Union (EU) and China in approximate economic equivalence (Morris 2010; Lin - Monga, 2010; Gilbertson-Reyes, 2009; Bretton Woods Project, 2011; China CDM Fund, 2011; World Economic Forum, 2009).

The ranking economies based on their economic performance and economic development shows that China has share by 15,1% of the world economy behind US by 24,9% in field of nominal GDP growth in 2017, when the prosperity of an economy is measured by several indicators used. Growth rate in changes of real GDP, GDP per capita government debt in GDP ratio, employment, productivity, R+D+I per GDP ratio, in spite that the actual wealth and income are inequality.

The main research focuses on the GDP growing trends based on the correlations mostly with central governmental debt calculated in the GDP for each country of the 30 selected one. The central governmental debt and the GDP growing rate are correlating with some other economic changes, which have strong effects for the whole economic situation including the GDP per each employed inhabitant of the selected countries. The whole general economic situation includes also labour productivity and the foreign direct investments influencing on the financial conditions of 30 selected economies. The labour productivity has important role to develop production and obtain the international competitiveness at the national and international markets. The FDI can strengthen the development of the advanced technology to extend the international competitiveness in developing countries.

There are several similar characters of selected 30 countries mentioned in the research in field of the GovDebtGDP, GDPGrowth, BalaPayInGDP, ConsPrice, TaxRevenue and the other economic variances can be much different in fields of GDPEmployed, LabourProd, FDIinFlow, FDIoutFlow and BalanPayment.

Because of the scientific research concerns deeply the performance of the world economy, therefore the study and research analyses are based on the international-wide-side statistical data bases coming mostly from ILO, ILOSTAT, UNCTAD, World Bank an EU dataset from the year of 2000 till the end of the year of 2015.

Hypothesis

The key assumptioins that there are correlation between the main economics indicators or economic variances as:

Growth rate measured by GDP growing government debt to GDP ratio, FDI inflow and outflow, productivity, consumepr rice level and balance of payment to GDP ratio.

Hypothesis-1

The main source of poor result of the world economy and in majority of OECD countries is the low or lowering level of productivity combined with high government debt to GDP ratio and these negative effects are interrelated and accelerated.

Hypothesis-2

In China and some other countries where the growth rate is high, the productivity increased fastly, partly because of FDI Flows spillover and the moderately less Government debt to GDP ratio. In these countries the increasing consumption of population also one of the drivers of economic grorwth.

Hypothesis-3

Contributions of different interrelated macroeconomic factors to economic growth are very complex and the final effects are different by countries, however there are some tipical groups.

Hypothesis-4

The missing balance of FDI inflow and outflow also can have negativ effect on economic growth through its effect on other macroeconomic indicators.

Hypothesis-5

The government debt (GovDebtGDB, BalanPayment) are negatively correlated with economic growth and this correlation becomes particularly strong when debt reaches a certan threshold.

The analyses for the economic processes and performance of the selected countries can make clearly discover the possible development capacity for these countries and improving directions of different parts and sectors of their performance based on the variances. For example the GDPEmployed and LabourProd should be developed mostly within corporation and company scheme for the future prosperity of countries. While the GovDebtGDP and BalaPayInGDP should be met demands of ensuring better economic and financial background for the economic interest of the firm-development based on the many-side firm-management. Therefore the harmonization should be created between the GDPGrowth at the national economic level and the LabourProd at the firm level. From this approach the balance of both of them can be the TaxRevenue, which should be moderate in order to make balance of the economic interest between the importance of economic growth and interest of the consumption. If the TaxRevenue is too large, the economic growth and the consumption will be less, if the TaxRevenue is too small, the consumption side will be too much against the economic growth and the advanced technological development, and therefore the international competition will be less.

The international side can make influences on the domestic economic growth mostly by FDI flow through financing the domestic investments and the finance through the GovDebtGDP, as share of the foreign financial resources for the GovDebtGDP, and also the BalanPayment partly based on the foreign trade balance.

GovDebtGDP (Average Central government debt, total in % of GDP), GDPEmployed (GDP per Employed), GDPGrowth (Average GDP growth rate) BalaPayInGDP (Average of Balance of Payment in GDP in %), LabourProd (Average Labour Productivity), ConsPrice (Average of consumer price change in %), TaxRevenue (Average Tax revenue in % of GDP), FDIinFlow (FDI Inward 2005-2015, 2015/2005, 2005= 100, Million US dollar, in percent), FDIoutFlow (FDI Outward 2005-2015, 2015/2005, 2005=100 Million US dollar, in percent), BalanPayment (Balance of payment 2005-2015, 2005= 100, in million in US $ in percent, 2005 = 100).

2. RESEARCH METHODS

The statistical analyses are needed to describe the correlations and significance among the variances meaning the economic conditions in detailed for each country. In order to determine the similarities and differences based on the compering system among 30 selected countries, the best way to use the internationally accepted statistical method, namely the SPSS in detailed in Special Program for Social Sciences (Sajtos-Mitev, 2007).

The statistical analyses are set up the SPSS (Special Program for Social Sciences), which scientific methods were worked by Sajtos - Mitev (2007). Based on this research method the analyses need for describing the results by Factor Analysis, Descriptive Statistics, Regression Method, Graphs and Hierarchical Cluster Analysis with setting Dendrogram based on the Ward's Method. Naturally all of the researching methods can make possibility to compare the EU-28 based on the different economic conditions with variances used in the research process.

The special variances as economic conditions are including the GovDebtGDP, as Average Central government debt, total in % of GDP between 2000-2014, GDPEmployed, namely GDP per Employed from 2000 till 2014, GDPGrowth, as average GDP growth rate between 2000-2015 (WDI, 2016), BalaPayInGDP, as Average of Balance of Payment in GDP in %, 2005-2015, LabourProd, as Average Labour Productivity in 2000-2015 in Million Dollar (ILOSTAT, 2016), ConsPrice, Average of consumer price change, in 2000-2011, TaxRevenue namely Average Tax revenue in % of GDP between 2000-2014 (WDI, 2016), FDIinFlow, namely FDI Inward for the period of 2005-2015, FDIoutFlow, namely Outward between 2005-2015, BalanPayment, namely the Balance of payment 2005-2015 (UNCTAD, 2016). Therefore the statistical analyses are based on the 10 variances within four components for 30 selected countries. The statistical analyses include correlation matrix, factor analyses, and cluster analyses for dendrogram using ward linkage. Also the statistical analyses include descriptive statistics and processing summaries to discover measure of the correlations and significance among different variances concerning the economic conditions and performance of the 30 selected economies in this researching work.

The study focuses on the analysing the economic conditions of the selected 30 countries from four continents and correlations and significance among different economic situations as

variances mostly based on the performance of the countries accompanying with their central government debt and the GDP growth for the period of 2000-2015. The used SPSS statistical analysing system classified the 10 different variances into four components for applying score system, which are as follows:

Component-1: (Minus) GovDebtGDP, GDPEmployed, GDPGrowth
Component-2: BalaPayInGDP, LabourProd, (Minus) ConsPrice
Component-3: (Minus) TaxRevenue, FDIinFlow, FDIoutFlow
Component-4: BalanPayment

The SPSS statistical system selects ten economic variances into 4 components based on the characters of each variances. Within each component the variances are similar to each other, therefore the statistical analysing system could automatically select them to one-one component. The Component-1's economic variances are existing at principle line "X" and the other variances of other components are at principle line "Y". The statistical analyse uses only secondary statistical research, because the key-questions could not solve the wide side data based analyse, such this was needed for the wide-side data analysing.

China has a favourable economic positions, because the country has reached the increasing GDP growing (GDPGrowth) rate by 9,6% and increasing GDP per employed (GDPEmployed) by 109% since 2000 by the end of 2015, and low share of the central government debt in GDP (GovDebtGDP) in China has been 11,5% annual averagely for period of 2000-2014. The second position was for Slovak Republic and Turkey by 3,9% increasing GDP of two countries, then Poland and Israel by 3,6%, Korea Republic of by 3,55%, Australia by 2,97%. Also Israel from these countries has reached the negative trend of the GovDebtGDP, therefore the balance of the GovDebtGDP shows more debt for this country from year to year.

In cases of some countries it can be declared that the *GDPGrowth rate was at highly or higher level in countries, in these countries the GovDebtGDP was less share*, for example in China, Belgium, Mexico, Czech Republic, Switzerland, Norway, Korea Republic of, Poland, Australia, New-Zealand, Canada, Sweden and Turkey.

The increasing level of complexity and intricate nature of research in this decade is attracting the attention of many management researchers who are of the opinion that newer and up to date methodologies should be employed (Jogulu-Pansiri, 2011). The methodology of a research work is often a collection of the paradigm, philosophies and methods adopted to execute the aim and objectives of the research as effectively as possible (Oprean, 2002; Morris, 2010). Within this context Gormon and Clayton (2005) argue that management research projects may either be qualitative or quantitative with each requiring different paradigm and philosophical background. Other researchers who have advocated for a third approach called the mixed method are Gorard and Taylor (2004; see more in Simonds - Gorard, 2010; Roman et al, 2007; see more in Széles et al, 2010).

SHRM came to existence and developed in organizations. Further, it is important to note that Lengnick-Hall et al. (2009; and Lefter et al, 2007a) presented an evolutionary and chronological perspective on the development of SHRM. Davoudi, et al. (2012; Drysdale–Huang, 1997) identified the following seven themes, which influenced the development of the field of SHRM:

Explaining contingency perspective and fit; Shifting from a focus on managing people to creating strategic contributions; Elaborating HR system components and structure; Expanding the scope of SHRM; Achieving HR implementation and execution; Measuring outcomes of SHRM; Evaluating methodological issues.

Fully Integrated Type: For this type, the HR specialist is intimately involved in the overall strategic process in both formal and informal interactions - a real reflection of SHRM in practice (Nandwani, 2013). Thus, SHRM is concerned with ensuring a strategic integration between business strategies and HRM. Wright - McMahan's (1992) definition of SHRM illustrates that the main focus of the field should be on integrating HR with firm strategies.

Roman et al, (2007, p 24) the following extremely simple yet equally effective recommendations must apply (Bostan, 2010, p. 79):
.- Financial control must not demand inadequate information and situations, which would require an allocation of time and create psychological strain, to the detriment of regular activity;

.- Financial control must consider the fact that economic phenomena and processes tend to be repeated to a certain degree, therefore at a given stage the same dysfunctions will be observed in most entities, which enables control agencies to identify them more rapidly and therefore to improve the efficiency of their own activity.

In this context, the author quoted above (Cocoara, 1999) makes the following recommendations, which are as follows:

▪ When any deficiencies are discovered, they will be recorded either directly in the objective that is analysed in the control brief or in the personal record;

▪ In order to clarify those issues which require discussions, the parties concerned will be invited, after a brief period, to save time, as this creates an opportunity to tackle several issues during the same appointment;

▪ To ensure that changes can be made during the period of control, in the first days the analysis will focus on accounts such as: "accounts payable", "accounts receivable", "suppliers of current assets", "advance payments to suppliers", "cash advances", "suspense accounts", "expense accounts".

The methodological system of financial control

The control establishes if the economic and financial activity is being organized and carried out according to the established norms, principles or rules. In order to know and improve the economic-financial activity a methodological system is needed that contributes to the reflecting of reality, legality and efficiency (Lefter *et al*., 2007b, p. 30).

From a methodological point of view, the control is a knowledge process that needs several moments: knowing the established situation, knowing the real situation, knowing the deviations by comparing the real situation with the established one, conclusions, proposals and measures (Craciun, 2002). Being a process structured on the basis of the enumerated moments, the control methodology needs:

▪ formulating the control's objectives;

▪ defining the objectives depending on the forms of financial control (preventive, operative, subsequent control);

- the organs or the areas that are legally competent to carry out the control upon the established objectives;

- the information sources needed for control (primary documents, technical-operative records, and accounting records);

- using the control proceedings and techniques that contribute to knowing the controlled activity.

The main techniques of control are (Lefter *et al*., 2007, pp. 32-34):

a) The chronological control is carried out as the documents are drawn out, booked and filed. The documents are examined every day, in a raw, in the order in which they are kept, without any previous grouping or systematization.

b) The chronologic control in reverse order is carried out from the end towards the beginning of the control period. One begins with the control of the most recent operations and documents and the control is conducted from the present to the past. It is used when it is \ necessary to establish the moment in which the deviation happened or to follow the development process of the operations that are connected with the deviation.

c) The systematic control requires grouping the documents depending on problems (bank, cash register, supply, etc.) and then requires their control in chronological order.

Lefter *et al*., (2007, p. 35) mentioned that the method of the economic-financial analysis is a research method based on splitting up or separating an object or a phenomenon into component parts. By means of the techniques typical for this method, each element is being separately examined, the cause/effect causes are established, and are determined the trends and fluctuations of various indicators (Oprean, 2002). The analysis completes the control with some aspects that cannot be pointed out by other control methods. It contributes to focusing the control on the essential problematical aspects.

Moreover, the different controlling activities of centralized/decentralized tasks are summarized as the followings (Zéman *et al*., 2013, p. 15; Zéman et al, 2014c):

- Centralized tasks: developing business policy, profitability and risk analysis, profit requirement calculation, expenditure plan calculation, systematic evaluation of target theme implementation, development of integrated plan-fact controlling system, developing business policy alternatives, developing managerial information system.

- Decentralized tasks: developing decision oriented mentality, decentralized expenditure plan, implementing certain planning and controlling tasks, regulation of information process.

- *Types of competitive factors*

- Factors such as quality and quantity of the services, price competition, availability, promotions and public relations play an important role.

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Is there an adequate situation for technological environment?

Basically the banks' current situation are defined by communication systems and information technology. The more innovation are introduced, the more old products disappear. (Zéman *et al.*, 2013, p. 15).

3. RESULTS AND DISCUSSION

.1 All of the economic variances are correlating among themselves but by different levels to create the special direction for development of performance belonging to the countries in researching works. The study would like to proof strengthens and weaknesses, the favourable and non-favourable correlations and significance among these countries from economic approaches. The economic growth, the GDP growth of countries are usually effected by the central government debt, GDP per employed, labour productivity, domestic consumer price level, tax revenues of the central governmental budget and positive or negative balance of payment generally or calculated in GDP per each country from this 30 country-group. Naturally beyond the inside economic and social background of the performance of the countries the international economic or world economic conditions strongly effect on the national performance development. Mostly these international effects can clearly be followed by flow of FDI (foreign Direct Investment) inflow into the countries and outflow from the countries. The tax revenue calculated in GDP can make influences on the measure of FDI inflow and outflow processes.

.2 The correlation matrix provides the measure of the correlations and the significance among the variances concerning different economic process or different parts and sectors of the performance belonging to the countries. The strongest correlation is value of 0,799 or in percent 79,9% between GDPEmployed (GDP per Employed from 2000, 2014/2000, 2000= 100, based 2011 PPP = Purchase Power Parity, WDI, 2016), and GDPGrowth (Average GDP growth rate between 2000.-2015, in %, WDI, 2016), which is a direct correlation one. This means that if the GDPEmployed increases the GDPGrowth also increases in the same period. When the GDP per employed increases the whole value of the GDP should increase, therefore the correlation should be the strongest between themselves, this correlation is strongest from all of the correlations among the variances. Therefore this correlation mostly determines the economic growth and the development trends of the 30 selected countries. If the value of the correlation is closed to value of 1,000 or 100%, generally more than 0,500 or 50%, the correlation can be titled as strong.

.3 The *significance* is strong among the GovDebtGDP, GDPGrowth, FDIoutFlow, ConsPrice and GDPEmployed. The significance is the strongest between the GovDebtGDP and GDPGrowth, which was proofed by the correlation analyses. The significance is the second strongest between the GovDebtGDP and FDIoutFlow, because if the GovDebtGDP is at

highly level, this can stimulate to increase the level of the taxes as burden even on the foreign companies responsible for the FDI, and in this case these companies increase their FDIoutFlow from countries, where the tax-conditions are not favourable for them. From this approach naturally they decreased their FDI activities by increasing the FDIoutFlow.

.4 The significance is strong between the LabourProd and ConsPrice, if the price level of products and services increases, which means that the *value of produced products and services increases per employed at the fixed level of employment level*, by the other words the LabourProd increase. Naturally the contradiction conditions are true, when if the price level of products and services decreases, which means that the *value of produced products and services decreases per employed at the fixed level of employment level*, by the other words the LabourProd decrease. The significance is strong between the ConsPrice and GDPGrowth, which means that if the ConsPrice increases, this means that the value of the products and services accepted by consumers in market price on the market increases, therefore increasing market price level of all of products and services contribute to increasing the GDP of the given national economy.

5. Total Variance Explained based on the Extraction Method: Principal Component Analysis, shows that the all of the ten variances are explained by four components by 71,949% about by 72% based on the correlations and significance among all of the variances based on the Extraction Method: Principal Component Analysis. This Table-4-6 also explains the correlations of the variances, but in this case it is not enough to explain the importance of each variance from all of them, but this Table-4-6 adds all of the variances to determine their importance in percent and every each one. Only variances of the first components were explained of by 27,693%, but the other rest of the variances were explained the remaining percent as 44,256%. The Table-4-7, namely Rotated Component Matrix shows values of the variances and these are clustered into four components, of which variances of the first component are at the principle line "X", while the other variances of the other three components are at the principle line "Y" in score system of these statistical analyses. Also these figures show the places of the 30 selected countries in the four sessions of the score. The clustering variances into four components are realised based on the Extraction Method: Principal Component Analysis and the Rotation Method: Varimax with Kaiser Normalization.

.6 In the *Figure-4-1 in the first quarter* of the score is above principle line "X" turn to right side from the "Origo" and the countries, which are as follows: China, Switzerland, Norway, Sweden, Netherlands and Belgium, 6 countries. In general in these countries the GovDebtGDP decreases, which trend is opposite to increasing growing rate of GDPEmployed and GDPGrowth. Also the ConsPrice decreases and the LabourProd and BalaPayInGDP increase. This is a natural contradiction, because if the government debt in percent of GDP is increasing, this can occur, when the performance of countries falls based on the GDP decrease and GDP per employed decrease. If the GDP and GDP per employed increase, these can lead to increase the possibility for decreasing the central government debt even it is calculated in GDP. The production increase leads to increase the level of salaries and personal income taxes and the willingness of consumers to purchase more products by increasing value added taxes for governmental budget and therefore to decrease the central government debt accounted in percent of GDP.

.7 These developed economies are mostly from former EU member states. These examples also strengthened that the highly level of GovDebtGDP effects the low level increase of GDPEmployed and the GDPGrowth. For China and the domestic consumers there have been favourable economic conditions, namely the really low level increasing ConsPrice (consumer price) for the same period. This low level price increase is favourable in order:
.- to keep back the considerable inflation rate;
.- to strengthen the purchase power parity of domestic consumers;
.- generally to remain the lower level of salaries by keeping the low level of the consumer prices;
.- by keeping low levels of salaries and consumer prices the human resources can be relatively cheaper in the international compare;
.- therefore the comparative advantages can be extending on the world market, by which the export oriented policy and strategy of the country can be easierly realised;
.- therefore to extend the domestic market in China;
.- the ConsPrice (consumer price) increase by mostly 3% can also stimulate the producers to increase their production, but generally higher price level obstacles consumers to extend their purchases, therefor the domestic can be narrow in the near future.

.8 In cases of some countries it can be declared that the GDPGrowth rate was at highly or higher level in countries, in these countries the GovDebtGDP was less share, for example in China, Belgium, Mexico, Czech Republic, Switzerland, Norway and Korea Republic of, Poland, Australia, New-Zealand, Canada, Sweden and Turkey. Naturally in those countries, where the GDPEmployed increase has been at highly or higher level since 2000 until 2014 (2000 = 100%), the GovDebtGDP was moderately less, for example in cases of China, Slovak Republic, Poland, Czech Republic, Korea Republic of and Sweden.

In this analysis for this thesis, I declare that the countries have central governmental debt in GDP under 50% and the GDP per employed from 20% as increasing rate from 2000 to 2014, and the GDP growth rate is more than about 2,0% from 2000 to 2015.

.9 The GovDebtGDP and the ConsPrice increase make very unfavourable economic background for the producers and the consumers, because the ConsPrice increase decreases the purchase power parity and makes domestic market be narrow for the producers. Also the GovDebtGDP increase results less central governmental support for producers to transit their technological development from the using fossil energy to using renewable energy use by applying advanced technology saving energy use, therefore decreasing the production cost and increasing their competitiveness on the domestic and world markets. Also the GovDebtGDP increase makes devaluation of the central governmental supports either for producers or companies or for the consumers, therefore the efficiency of the central support will also be decreasing. The LabourProd decrease results less price income for companies and less tax income for the governmental budget, which can lead to increase the negative BalaPayInGDP, which negative balance can be covered by more central government budget calculated in GDP (GovDebtGDP). The increase of the taxes can also increase the level of the ConsPrice, which decrease the purchase power parity of the consumers by narrowing the domestic markets. These two variances as GovDebtGDP and ConsPrice are important index number showing the basic economic and financial difficulties of any country.

.10 In the *Figure-4-2 in the first session* of the score is above principle line "X" turn to right side from the "Origo" and the countries, which are as follows: China, Switzerland, Poland, Czech Republic and Netherlands, 5 countries. *In the first session* the first three variances at the principle line "X" are the same as in the Figure-1, namely in these countries the GovDebtGDP decreases, which trend is opposite to increasing growing rate of GDPEmployed

and GDPGrowth. But the other three variances from 7 to 9 variances are different namely (Minus) TaxRevenue, FDIinFlow and FDIoutFlow at the principle line "Y". In the countries of the first session the TaxRevenue decreases or less increases, therefore this variance is "minus" over line "X" at the line "Y", but the other two variances are increasing or less decreasing share of the GDP. In China the TaxRevenue has been at the very low level, as percent of GDP by 9,9%, lower level than most of countries within 30 selected country-group in its share of the GDP for the period of 2000 and 2014. In cases of the international compares the low level of China in field of TaxRevenue share of the GDP was lower than the average share of the TaxRevenue in GDP in cases of OECD countries by 15,2%, in case of the world level by 14,3% and in cases of the 30 selected countries by 18,7%. Because the share of the TaxRevenue of Mexico and Japan was 9,9% of GDP as same as 9,9% in GDP of China, therefore only Switzerland had had less share of TaxRevenue in GDP than China's one in the GDP for the period of 2000-2014 within 30 selected country group. This means that China and the Chinese Government stimulated the private sector at the best level to increase their economic activity and their investments for the economic growth by increasing jobs and innovative technological development more than other majority countries. Naturally it is important to declare that the US has little more TaxRevenue share in GDP by 10,4%, namely more by 0,5% than China's one. Therefore US also stimulated the private sector to increase their economic activity and investments based on the increasing jobs.

.11 Based on the examples of the countries of the fourth session of the score in Figure-4-2, mostly four countries, namely UK, France, Denmark and New Zealand can be emphasized as countries having strong highly developed agricultural sector with advanced manufactured food industries. In spite Greece is also agricultural country, but with less advanced food manufactured economy comparably with other four one. When the highly level of TaxRevenue could remain the GovDebtGDP at quietly internationally accepted low level of the debt, but this tax level considerably effected the decreasing level of the FDIinFlow. Where the TaxRevenue was at very highly level, therefore the FDIinFlow decreased considerable accompanying with increasing level of FDIoutFlow, therefore the foreign corporations decrease their investment activity in these countries. While the decreasing level of the FDIinFlow could accompany with decreasing FDIoutFlow, therefore the FDI can mostly or partly remain in countries. The FDIinFlow and the FDIoutFlow can be effected by either

highly level of the TaxRevenue or GovDebtGDP. Naturally this last both of them are also strongly correlating between themselves.

This can mean that in some of cases the foreign corporations could stay more in any country or their withdrawal was not so intensive opposite to other country, or the FDIoutFlow did not decreased, but even moderately increased because of the highly level of TaxRevenue. The higher unemployment with less FDIoutFlow can result higher level of the GDPEmployed in one country than in other one, while this GDPEmployed can be even higher if only the higher unemployment level is. The relatively lower level of the TaxRevenue and less decreasing rate of the FDIoutFlow can be, which result higher GDPEmployed and GDPGrowth rate. In the given country the GDPGrowth rate can be more than in other country, even if in this given country the GDPEmployed less than GDPEmployed rate in other countries (New Zealand). The higher GDPEmployed can result a lower GDPGrowth rate (Greece, UK) in one country than the other one depending on the FDIinFlow and FDIoutFlow.

.12 In Figure-4-3 generally the highly level of the increasing rate of the BalanPayment does not mean that the BalaPayInGDP will be at highly level or just only considerable. For example in Hungary the BalanPayment has been increasing rate by 140% since 2005 till 2015, while the BalaPayInGDP has been 0,7% (share of the BalanPayment in GDP) for the period of 2005-2015. In case of Belgium the situation was similarly, because the Belgium had had increasing rate by 97% in BalanPayment since 2005, while the BalaPayInGDP had been 0,6% for the same period, therefore the increasing rate of the BalanPayment was not so quietly considerable comparably to the share of the BalanPayment in the GDP (BalaPayInGDP). In those countries, where the increasing rate of the BalanPayment was less than in Hungary and Belgium, for example in the other three countries, the BalanPayment could get more share of GDP, namely in Korea (Republic of) increasing rate of BalanPayment has been 73% since 2005, but the BalPayInGDP was 4,6%, in Netherlands its 65,3% increasing rate and its share in GDP was 8,5%, while in Turkey 53% increasing rate of the BalanPayment, but its share in GDP was 5,6%, which last one was 5 times more than the Hungary's BalanPayInGDP for the same period.

.13 The basic favourable economic conditions were for China, namely the low level of the GovDebtGDP and the GDPEmployed, which created successful bases for the GDPGrowth for China, and in spite of the low level of the TaxRevenue China could have realised a

continuously good level of the BalanPyamnt and BalaPayInGDP in the international compare. Naturally China has to improve the LabourProd, because this has a little backwardness for the highest developed economies of the world economy. The FDIinFlow increase by 88% can be titled as favourable for China to obtain the highest developed technology and advanced manufacturing process within the international technological transfer to China by the cooperation with international transnational corporations. This technological transfer can ensure for China to increase the developed level of the LabourProd and GDPEmployed and therefore the international competitiveness of the country. In case of China it is very clearly seen that the correlation and significance are very strong between GDPEmployed and GDPGrowth, also among GovDebtGDP, GDPGrowth, and ConsPrice, and also LabourProd and ConsumPrice. These strong correlations provide proof and the future possible developing trends for China that how the GovDebt, TaxRevenue and ConsuPrice should be at the low level and GDPEmployed, LabourProd, GDPGrowth and FDIinFlow with positive BalaPayInGDP at increasing highly level are important for the future economic successful and international competitiveness on the world market. Naturally if the BalaPayInGDP is quietly at highly level, therefore the BalanPayment can be accepted for the interest of the international economic competitiveness. Also if the FDIinFlow into China has strongly trends, in contradiction the FDIoutFlow can be weaker, which means that the foreign technology is extending in wide side China.

.14 This SPSS analysing statistical system includes the clustering analysis, which shows that how the analysing system classifies different countries into different clusters based on their economic specific elements, namely by variances. In the cluster analysis as the Figure-5 based on the Dendrogram using Ward Linkage for Cluster Analyses for the order of OECD countries and China, clearly demonstrates the classification of the 30 selected countries in case of five clusters, which are as follows:

Country-group-1: Finland, France, Austria, Italy, Greece, Australia, New-Zealand, UK

Country-group-2: Germany, Netherlands, Switzerland, Denmark, Sweden, Belgium, Norway, Spain

Country-group-3: Canada, USA, Israel, Portugal, Japan

Country-group-4: Brazil, Mexico, Turkey, Czech Republic, Poland, Korea Republic of, Hungary, Slovak Republic

Country-group-5: China

The first, the second and the third country-groups mostly include the highly developed economies either in the world economy or in the 30 selected economies. The fourth country-group includes countries, which are less developed than the one of the first three country-groups. The fifth country-group is equal with only China. Because of China has had emerging considerable results in its economic development for the last two decades in the international compare and even in cases of the 30 selected economies in this analyse. Chins became its own one country as one cluster in this cluster analysis, which could come because China could have achieved attractive economic growth for the last two decades.

4. CONCLUSIONS AND SUGGESTIONS

4.1 Conclusions for the analysing the economic conditions of the 30 selected countries

In the dissertation the study wanted to analyses that how the correlations were and possibly would be at present among some economic conditions of 30 Asian and European different

countries. Most of them are OECD countries and EU member states accompanying with China as considerably developing countries with more developed rends than the world economy and most of the highly developed economies' one.

The study of the dissertation focuses on the analysing and describing the economic role of the China showing the highest level of economic developing trend in all of the world economy. China and the selected countries, of which mostly developed one of the world economy have potential possibility to increase the developed level of the world economy. China has a favourable economic positions, because the country has reached the increasing GDP growing (GDPGrowth) rate by 9,6% and increasing GDP per employed (GDPEmployed) by 109% since 2000 by the end of 2015, and low share of the central government debt in GDP (GovDebtGDP) in China has been 11,5% annual averagely for period of 2000-2014. The main issue of these selected countries, mostly OECD highly developed economies is to develop the labour productivity, which is the essence for the economics and from which the GDP growing rate and the GDP employed.

In those countries, where the government debt in GDP was considerably at highly level (GovDebtGDP), in these countries the GDP growing rate (GDPGrowth) could not develop enough in order to decrease the negative balance of payment in GDP (BalaPayInGDP). Also the balance of the FDIinFlow and FDIoutFlow is very much negative because of the more growing rate in field of the FDIoutFlow. This shows that the FDIoutFlow has consequently been increasing to decrease the role of FDI in the innovative development process in this 30 selected countries and in the most of the OECD countries.

Solution for the economic difficulties of the 30 selected economies of the research is that the GovDebtGDP should be decreased by decreasing the domestic consumption and transfer the capital and financial resources to increase the advanced technology, therefore the GDPGrowth can be going on in direction to increase.

4.2 New Scientific Results

For cases of the 30 selected countries the study focuses on the GDPEmployed and the GDPGrowth rate concerning the GovDebtGDP. Also the LabourProd has strong correlation with TaxRevenue (tax income) for the governmental budget, and the changes of the BalaPayInGDP, which has been influenced by central government debt calculated in GDP (GovDebtGDP). The highly level of TaxRevenue could remain the GovDebtGDP at quietly internationally accepted low level of the debt, but this tax level considerably effected the decreasing level of the FDIinFlow. Where the TaxRevenue was at very highly level, therefore the FDIinFlow decreased considerable accompanying with increasing level of FDIoutFlow, therefore the foreign corporations decrease their investment activity in these countries. While the decreasing level of the FDIinFlow could accompany with decreasing FDIoutFlow, therefore the FDI can mostly or partly remain in countries. The FDIinFlow and the FDIoutFlow can be effected by either highly level of the TaxRevenue or GovDebtGDP. Naturally this last both of them are also strongly correlating between themselves.

The GDP per employed increase can result the economic growth rate and the GDP growth rate, because this GDP per employed increase can set up the increasing of the labour productivity mostly in cases of companies. The decreasing government debt (state debt) and positive balance of the payment also stimulate the GDP growth rate by strengthening the national currencies and purchase power parity of consumers and population in direction to increase the domestic market and stimulate supply as production. The increasing or decreasing TaxRevenue does not make direct influences on the GDPEmployed and LabourProd. Because the increasing LabourProd can make influences on the increasing GDPEmployed, but if the TaxRevenue increases, therefore the number of employed in governmental administration or staff members can increase, which lead to the less GDPEmployed, in spite that LabourProd increases.

.1- The poor result of the world economy was mostly coming from decreasing level of the LabourProd (labour productivity) in majority of the OECD economies. In essence the low level or lower level of the LabourProd has resulted the low level of the GDPEmployed and the GDPGrowth rate and led to increasing measure of the GovDebtGDP for the period of 2000 and to about middle of the second decade of the 21st century. The LabourProd decrease results less price income for companies and less *TaxRevenue* (tax income) for the governmental budget, which can lead to increase the negative balance of payment to GDP ratio (BalaPayInGDP), which negative balance can be covered by more central government debt calculated in GDP (GovDebtGDP).

.2- Toward possible increase of the GDPEmployed can be realised by increasing consumption of the population, but which is limited by toward increasing consuming credit, which shows the mostly highly level of the GovDebtGDP. Because of this highly level of the GovDebtGDP the finance from more credits for the more population consumption can be difficult. Therefore the decreasing trend or less increasing trend of the GDPEmployed would remain. In those countries, where the GDPEmployed increase has been realised at highly or higher level since 2000 until 2014, the GovDebtGDP was moderately less.

In China the increasing GDP growing (GDPGrowth) rate by 9,6% led to low share of the central government debt in GDP (GovDebtGDP), which has been decreasing to level of 11,5% annual averagely and increasing GDP per employed (GDPEmployed) by 109% since 2000 by the end of 2015. Therefore Chine has the top increasing in these fields within 30 selected countries.

.3- The relatively lower level of the TaxRevenue and less decreasing rate of the FDIoutFlow can be, which result higher GDPEmployed and GDPGrowth rate. The GDPGrowth rate can be more than in other country, even if in this given country the GDPEmployed less than GDPEmployed rate in other countries (New Zealand). The higher GDPEmployed can result a lower GDPGrowth rate (Greece, UK) in one country than the other one depending on the FDIinFlow and FDIoutFlow. The significance is strong between the TaxRevenue and GDPEmployed, because increase of the TaxRevenue increases withdraws of incomes of firms and corporations, therefore the GDPEmployed decreased. This shows the strong significance between both of them. Also it is proofed that, because the significance is strong among the GDPEmployed, LabourProd and GDPGrowth, this means if the TaxRevenue effects on

changing one from these three variances, naturally the TaxRevenue has also the same effect on the other two variances.

China has a favourable economic positions, because the country has reached the increasing GDP growing (GDPGrowth) rate and increasing GDP per employed (GDPEmployed) for the same period of 2000 and 2015. In China the TaxRevenue has been at the very low level, in percent of GDP, therefore China increased the FDIinFlow into country by 88,5%, more than by 63,8% of OECD countries and 10,43% of the 30 selected countries for the same period. China had the second position in field of the FDIinFlow after US, but China had had more FDIinFlow than its FDIoutFlow for the last three years, which positive balance was 8,3% for FDIinFlow than FDIoutFlow. In China the increasing rate of the moderate level of the BalanPayment has been increasing by 15% since 2005, and the GDPEmployed of China was even higher increase, while the BalaPayInGDP was quietly satisfactory low level.

.4- In general the FDIinFlow is very weak in the 30 selected countries, which has been proofed by the low level of the average growing rate of the FDIinFlow by 10,43% and by considerable decreasing level of the FDIoutFlow by 32% for the period of 2005-2015. This means that the balance of the FDIinFlow and FDIoutFlow is very much negative because of the more growing rate in field of the FDIoutFlow. This increasing negative process can be explained by increasing TaxRevenue by 18,7%, but the highly developed economies have more about 20 and 32% as considerable burden on the private sector in the developed economies, and strongly increasing the GovDebtGDP by 60,88%, the less increasing the GDPEmploy by 18,06%, the GDPGrowth by 2,27%, the positive BalanPayment by 1,24%. Finally all of these negative trends make lower level increasing of the FDIinFlow rate by 10,43%.

.5- Where central governmental debt in GDP under 50% and the GDP per employed 20% as increasing rate from 2000 to 2014, and the GDP growth rate is more than 2,0% from 2000 to 2015 in cases of 30 selected countries, therefore the correlation is strong among the balance of payment in GDP, the labour productivity and consumer price. The GovDebtGDP and the ConsPrice increase make very unfavourable economic background for the producers and the consumers, because the ConsPrice increase decreases the purchase power parity and makes domestic market be narrow for the producers. Also the central governmental supports decresased because of increasing GovDebtGDP.

5. SUMMARY

The study analyses the correlations among some economic conditions of 30 selected countries most of them OECD countries and EU member states with China. The majority of the EU member states are also member states of the OECD, as organization for the highest developed economies of the world economy. The economic role of the China has considerably very much increased for the latest decades in the world economy. The main research focuses on the GDP growing trends based on the correlations mostly with central governmental debt calculated in the GDP for each country. The importance of the research, because of the selected countries mostly developed one of the world economy, therefore their performance has determine the role for the developing trends of the world economy and for the rest of the world.

The statistical analyses are needed to describe the correlations and significance among the variances meaning the economic conditions in detailed for each country. In order to determine the similarities and differences based on the compering system among 30 selected countries, the best way to use the internationally accepted statistical method, namely the SPSS in detailed in Special Program for Social Sciences. The statistical analyses include correlation matrix, factor analyses, and cluster analyses for dendrogram using ward linkage.

China has a favourable economic positions, because the country has reached the increasing GDP growing (GDPGrowth) rate by 9,6% and increasing GDP per employed (GDPEmployed) by 109% since 2000 by the end of 2015, and low share of the central government debt in GDP (GovDebtGDP) in China has been 11,5% annual averagely for period of 2000-2014. The second position was for Slovak Republic and Turkey by 3,9% increasing GDP of two countries, then Poland and Israel by 3,6%, Korea Republic of by 3,55%, Australia by 2,97%. Also Israel from these countries has reached the negative trend of the GovDebtGDP, therefore the balance of the GovDebtGDP shows more debt for this country from year to year.

In cases of some countries it can be declared that the *GDPGrowth rate was at highly or higher level in countries, in these countries the GovDebtGDP was less share,* for example in China, Belgium, Mexico, Czech Republic, Switzerland, Norway and Korea Republic of, Poland, Australia, New-Zealand, Canada, Sweden and Turkey.

Naturally in those countries, where the GDPEmployed increase has been at highly or higher level since 2000 until 2014 (2000 = 100%), the GovDebtGDP was moderately less. The LabourProd decrease results less price income for companies and less tax income for the governmental budget, which can lead to increase the negative BalaPayInGDP, which negative balance can be covered by more central government budget calculated in GDP (GovDebtGDP).

In general the FDIinFlow is very weak in the 30 selected countries, which has been proofed by the low level of the average growing rate of the FDIinFlow by 10,43% and by considerable decreasing level of the FDIoutFlow by 32% for the period of 2005-2015, where the 2005 = 100%. This means that the balance of the FDIinFlow and FDIoutFlow is very much negative because of the more growing rate in field of the FDIoutFlow. This shows that the FDIoutFlow has consequently been increasing to decrease the role of FDI in the innovative development process in this 30 selected countries and in the most of the OECD countries.

Solution for the economic difficulties of the 30 selected economies of the research is that the GovDebtGDP should be decreased by decreasing the domestic consumption and transfer the capital and financial resources to increase the advanced technology, therefore the GDPGrowth can be going on in direction to increase.

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Total: 95 credit   **Gan Quan**

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