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Economic Development: A Comparative Analysis of Kazakhstan and Australia

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This paper will represent the economic development of Kazakhstan and Australia, in such sectors like finance and economy. The paper will assess in macroeconomics, applied economics, international economics, econometrics and mathematical modeling in economy by using an international experience of Australia and Kazakhstan. The main idea of this paper is look how the big difference does this country has in their economy. This study will examine determination of the rate of the influence of environmental factors (financial, money and commodity market) on the stability of national economy growth. Development of the methodological method of the evaluation influences external factors. In particular, accent which is an important dimension in macroeconomics growth theory has been identified as a basis of source evaluations which has been overlooked in the economical growth literature. The main objective of this paper is to determination of the quantitative and qualitative parameters of the influence of external factors on the increasing of the economy of Kazakhstan. This study will determine the range of influence of the world market to the economical growth of Kazakhstan and Australia.

1. Introduction

This paper presents a research proposal for the Doctoral Thesis for the Doctors of Philosophy in Economics at Eurasian National University, Astana. The background and significance of the study, the research question, and a brief review of the literature are provided at third International Business conference in Melbourne. The proposal presents the research hypotheses and the view for the economy of Australia and Kazakhstan.

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2. Background and Significance of the Study

The accumulated potential in the economic literature is not allowed for the countries of post-Soviet space, including Republic of Kazakhstan to actually estimate the degree of the influence of changes in the environment to the rates on the steady growth in the economy. But for the last five years Kazakhsan achieved good marks from International financial organizations in financial and economical sectors. Especially in the social –economic development kazakhstan has syntez of world and domestic expierences in 1. **Signatures:** Universality and Originality, Liberalism and Paternalism; 2.**Structure:** Different Combination Models of Element " Washington and Post Washington Consensus" with Economic Liberalization and " Asian Models";3.**Dynamic:** The Mosaic Function of State in Economics (from Classical to Keynesian;4. Neoclassical and Postclassical views);5.**Locomotive of Economic Growth:** oil, gas, metals, ways, accommodations, Financial Organizations; 6.**Specificity:** Variety of Authorities Interactions with States and Business Forms and Methods (Labour Groups, Seminars, Advisory Councils, Congresses, Conferences).

In the model of developing financial sector Kazakhstan has synthesis of world and domestic expierences in 1.**Signature:** universality and originality.a) Integrator of National Savings and Investment (J.M. Keynes).b) Factor of Market Financing (Y.Schumpeter).c) Condition of Household Development (H. Minsky); d) Money accelerator (J.Ackerloff).e) Mechanism of Transmission and Allocation Resources Between Export Oriented and Internal Oriented Sectors of Economies
2.STRUCTURE: The Different Elements of Consisting Financial System. a) Banks - UK, Germany, USA, Japan. b) Insurance Organization – Continental and etc. c) Construction Saving – Germany. d) Accumulative Pension Funds – Chile.e) The Mortgage Company of Kazakhstan - Malaysia.f) National Fund of RK – Norway.g) Securitization – Italy. **3. Dynamics:** Mosaic of Function Liberalism and Dirigisme of State (from Classical to Keynesian, from neoclassical to post - classical). **4.The locomotive of economic growth**: Export of Financial Goods and Services, Technologies and Innovations, International Standards, Basel II, Directions of EU, Corporate Management. **5.Specificity:** The Differences of Methods and Forms Relationship Between Government and Business (working Groups, Debates, Advisory Council, Seminars, Conferences, Congresses).

If we talk about financial system of Australia, this country total has 4 large international banks and the developed securities market. Not fixed exchange rate. Very flexible interest rates from 4 up to percent allow average and small business the messages business. Also the Governments of Australia pay very high attention for the small cities, for example Whyalla, where population is about 22 thousand people to develop SME sector, because most of the payment to GDP comes from this sectors. But Australia like Kazakhstan for these days export rude mineral which is give very high rate to develop there GDP, instead of bringing technologies and develop there in a big plants.

3. Review of Literature

The proposed study is derived from the discussing with many professors in Kazakhstan and Australia. The theoretical foundations for the study include: representative in Keynes theory (19 century) in researching economical process are Harrod (1948) and Domaroy (1946), S.Kuznec (1966) is the founder quantity approach in researching an economical growth, D.Nort (1973) shown that legalization and legislation registration of property rights was the central factor of the economical growth, E.Dennison (1985) was extended his research in Solow model (1956), R.Lucas (1998) signed that that growth in productivity is close linked with investment in the human capital, also this research developed P.Romer (1986) , P. Samuelson (1965) and others.

3.1 The Growth Theory in Macroeconomics and International Economy.

Models are simplified representations of the real world. A good model accurately explains the behaviors that are most important to us and omits details that are relatively unimportant. In economics, the complex behaviour of millions of individuals, firms and markets is represented by one, two, and a dozen, a few hundred or a few thousand mathematical relations in the form of graphs or equations or computer programs. The intellectual problem in model buildings is that humans can understand the interactions between, at most, only a handful of relations. So usable macroeconomic theory relies on a toolbox of models, each consisting of two or three equations.

One of the main elements of relationship between economic growth and macroeconomics, it is chose the level of generation. Today next generation has enormously higher incomes compare to previews generation. People in industrialized nations are fall wealthier than people living less developed countries. In fact, Australians, North Americans, Asians and many Europeans had higher do today. What will determine our standard of living in the future? These are growth accounting and growth theory answers these questions. Growth accounting explains what part of growth in total output is due to growth in different factor production (capital, labor and so on). Growth theory helps us to understand how economic decisions control the accumulation of factors of production; for example, how the rate of saving today affects the stock of capital in the future.

In neoclassical growth theory dominated economic thought for three decades, because it does a good job of explaining a great deal of what we observe in the world and because it is mathematically elegant. Nonetheless, by the mid-1980s dissatisfaction with the theory had arisen on both theoretical and empirical grounds. Makiw (1995) provides an accessible overview of issues of growth. Weil (2005) and Jones (1998) are other useful text addressing the issues surrounding economic growth. The best state-of-the-art examination of both the theory of, and the empirical evidence on, growth is the graduate level text by Barro and Sala-i-Martin (1995). Temple (1999) presents a thoughtful examination of the empirical evidence on economic growth, and Sala-i-Martin links empirical evidence and the intellectual development of new growth theory in a very readable article. Aghion and Howitt (1998) provide another important contribution in the area endogenous growth

analysis. Neoclassical growth theory predicts that, in the absence of continued technological improvements, per capita growth must cease. This comes from the underlying assumption of diminishing returns to capital.

In international economy the dominant model of comparative advantage in modern economics there is a Heckscher-Ohlin model, it is a theory of long-term general equilibrium in which the two factors are both mobile between sectors and the cause of trade is different countries having different relative factor endowments. This model gives us some interesting insights into the effects of trade on factor use and factor rewards, not least that the three movements of goods between countries may bring about the equalization of real payments to factors of production, even though those factors are by assumption unable to move between countries in search of higher real rewards.

One of the main factors that have influences in international economy is a growth economy. Growth in an open economy will have two major economic effects: on the level of welfare for the economy as a whole, and on the distribution of income between factors of production. There is an important difference between small and large countries in the effect that growth will have on welfare. For a small country, growth is necessarily welfare-increasing: growth, through shifting the production-possibility curve outwards, allows a country trading at constant prices to reach higher community indifference curve. For a large country however, growth need not to be welfare-increasing. An expansion in a large country's trade volume will turn the terms of trade against it, and that will reduce the welfare gain. Indeed, in the extreme case the country's welfare may be reduced. On the other hand, growth that reduces a large country's trade volume will turn the terms of trade in its favour, and this will increase the welfare gain.

The effect of growth on the distribution of income between labor and capital are reasonably clear when growth comes from increases in the endowments of factors, rather less so when growth is the result of technical progress. Growth in the endowment of capital in a small open economy increases the real wage rate, but decreases the real return to capital. Conversely, growth in the labor force in the absence of growth in the capital stock will reduce the real wage rate and increase the real return to capital. Balanced growth (equal proportionate increases in both endowments) will leave the real rewards to factors of production unchanged. It should be clear from these results that if both the capital stock and the labour supply increase, but capital (labour) increases faster than stock and the labour (capital) then the real wage will rise (fall) and the real return to capital will fall (rise).

Also if we overlooking the tradition of endogenous growth in many of the growth models of the 60's: apart from Arrow's (1962) learning-by-doing model where learning emanated from thr dynamic externalities of cumulated gross investment and Uzawa's (1965) model of investment in human capital generating technical change, there are the Kaldor-Mirrless model (1962) where investment is the vehicle of technical progress and Shell's (1967) model of inventive activity. Nor is the blurring of distinction between capital accumulation and technical progress a new feature: it was the salient point of the Johansen-Solow type vintage capital models as well as the many growth models of Kaldor. The idea of aggregate dynamic economies of scale in the form of goods sector using those inputs, expanding the productivity in

the final goods sector using those inputs, which Romer borrows from Ether (1982) – which actually goes back to Young (1928) – has in same sense been already formalized in vintage – capital models where each new vintage of better machines expanded the range of higher – productivity inputs used in final goods production. The major contributions of the new growth theory lie in combining all these with a tractable imperfect – competition framework which provides some (Schumpeterion, (1960-70)) private motivation for investment in research and development.

3.2 Given Examples How Economic Growth Models Are Work

In these models should be shown the kind of characteristics work in economic growth like developed and developing countries. Especially what type of external and internal factor influences to stability of economic growth these countries? As we know growth in open economy will have two major economic effects: on the level of welfare for the economy as a whole, and on the distribution of income between factors of production. But there is an important difference between small and large countries in the effect that growth will have on welfare. For a small country, growth is necessarily welfare-increasing: growth, through shifting the production-possibility curve outwards, allows a country trading at constant prices to reach higher community indifference curve. For a large county however, growth need not be welfare-increasing. Such considerations may have influenced those economists who advocate that-developed countries should plan their development so that growth is concentrated in the import-competing sectors.

4. Research Objectives

As a part of globalization process in the world, Kazakhstan became one of the new members in this process. Because globalization involves an increasing importance of trade in goods and services between nations; an increasing flow of funds for investment purposes between nations which usually results in increased technology transfers between nations; an increasing flow of private savings or finance across national boundaries; an increasing flow of labor across national boundaries; a tendency towards the business cycles of the economies most involved in globalization to harmonize, i.e. recessions tend to occur simultaneously in many nations while booms tend to occur at much the same time. So some observes refer to the international business cycle today, these levels come from growth in global markets, global resource flows, transnational corporations, global consumption patterns and intergovernmental agreements. That is why the main idea of this research will be linked with examples from other economies around the world. When all countries can produce more goods and services we call this process economic growth. Economic growth reflects two broad influences: the forces which can contribute to producing economic growth and the factors which can promote a superior economic growth performance. These are factors: (i) the quality of labor and entrepreneurs, (ii) capital accumulation: investment, (iii) improved efficiency in the use of existing factors of resources, (iv) technological progress, (v) institutional features favoring economic growth, (vi) export industries.

5. The Analysis of Economic Growth Models

This analysis presented main factors of economical development in Kazakhstan for the last years, as a part of data analysis. One of the main phenomena which characterized modern economy in this case is government programming, which includes traditional methods of regulation fiscal and monetary policies, developing investment program and development manufactures in government sector of economy, long and short period development for economic forecasting in this analysis. Using experiences of constructing an economical and mathematical methods and computation for them undoubtedly has been very interesting in certain condition of the developing economy period in examined countries. Today in different countries forms that are uses different kinds of programming, has specific features that has connected firstly with differences economical systems, with differences aim by constructing system of models. Specifically most of these countries operate with data and construct their models by general equilibrium models, solving them in GAMS software. In Kazakhstani cases most of the scientists started to use dynamical models like general equilibrium model in their cases, but many of the universities use old classical methods like regression methods, model of growth Solow in econometrics. These types of methods are based on the theory of neoclassical Keynes and classical methods in quantity theory of money which is adapted to the modern conditions.

This research method will be consider in the case of Kazakhstan from analysis of economical endogenous growth model of Solow-Swan with Cobb-Douglas production function and Romer, Paul with production function of capital and labor market for this purposes mathematical model will be finish to the calculated formulas.

6. Economic Development Issues

This research touched upon economical and endogenous growth model of Solow-Swan with Cobb-Douglas production function and Romer, Paul with production function of capital and labor market which will were consider scientific technological changes in economy.

The Solow-Swan model is based on model of Cobb – Douglass production function taking into account for maximization average per capita discounting consumption. Also it was constructed trajectory which has balancing solution of economical dynamic model taking into account endogenous scientific technological progress. The key aspect of the Solow-Swan model is the neoclassical form of the production function, a specification that assumes constant returns to scale, diminishing returns to each input, and some positive and smooth elasticity of substitution between the inputs. This production function is combined with a constant-saving-rate rule to generate an extremely simple general-equilibrium model of the economy.

In this model the economy we imagine that economy is closed: households cannot buy foreign goods or assets and cannot sell home goods or assets abroad. With assumption that there are no government purchases of goods and services, we now in closed economy with no public spending, all output is devoted to consumption or gross investment. For example in open economy with government spending, the formula will be $Y(t) - r*D(t) = C(t) + I(t) + G(t) + NX(t)$ where D(t) is international debt, r is

the international real interest rate, G(t) is public spending, and NX(t) is net exports. In this case we assume that there is no public spending, so that G(t)=0, and that the economy is closed, so that D(t)=NX(t)=0. So Y(t)=C(t)+I(t). By subtracting C(t) from both sides and realizing that output equals income, we get that, in this simple economy, the amount saved, S(t)=Y(t)-C(t). Let s(*) be the fraction of output that is saved – that is, the saving rate – so that 1-s(*) is the fraction of output that is consumed. The simplest function, the one assumed by Solow (1956) and Swan (1956) in their classic articles, is a constant, is a constant, $0 \le s^* = s \le 1$. We use this constant-saving-rate specification in this chapter, because it brings out a large number of results in a clear way. Given that saving must equal investment, S(t)=I(t), it follows that the saving rate equals the investment rate.

Assuming that capital is a homogenous good that depreciates at the constant rate $\delta > 0$; that is, as each point in time, a constant fraction of the capital stock wears out and, hence, can no longer be used for production. Before evaporating, however, all units of capital are assumed to be equally productive, regardless of t, when they are originally produced.

The net increase in the stock of physical capital at a point in time equals gross investment less depreciation:

$K^*(t) = I(t) - \delta * K(t) = s * F[K(t), L(t), T(t)] - Delta * K(t)$

Where a dot over a variable, such as $K^*(t)$, denotes differentiation with respect to time,

$K^*(t) = \frac{dK(t)}{d(t)}$. If we divide both sides of this equation by L, we get

$$\frac{K^*(t)}{L} = s * f(K) - \delta * K$$

The right-hand side contains per capita variables only, but the left-hand side does not.

$K^* = s * f(k) - (n + \delta) * K$ is the fundamental differential equation of the Solow-Swan model.

7. Data Collection

The data were taking from Statistical Agency of Kazakhstan and National Statistical Bureau of Australia. The process of collecting data was linked in two steps. First is to find them and the second is analyses and put it them to the equations.

8. Anticipating Results

The main aim of this research is to determine the local and global factor's to the economy of Kazakhstan and try to understand from the results, which type of sectors in economy of different countries will be better from Australia to use as an examples.

9. Research Outcomes

In conclusion the main results and research conclusion are formulated. The research extend the body of knowledge in the area of source characteristics by analyzing

which dependence of econometric formulas is strong and which data is the best activities in research area.

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