

The Impact of Intellectual Property Rights on Economic Growth in the ECO Member Countries

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Abstract

In recent years, supporting intellectual property right has gained more significance. Intellectual property rights could be considered as legal rights resulting from intellectual activities in industrial, scientific, literary and artistic fields. Today, many countries are seeking practical information about using intellectual property to improve economic growth. Intellectual property rights have an important role in long term, economic growth of communities so international institutions such as Global Business Organization and Global Intellectual Property Organization have been advising their members based on providing and reinforcing this determinate in recent years. Also the gap in intellectual property regimes among developed and developing countries is considered as one of the reasons of differences in economic growth and development in these countries. Intellectual property right is important from the viewpoint of developing countries and in relation with its impact and outcomes on economic development, and stable human development. Considering the global changes and internationalization of production, distribution and consumption, it is necessary to observe all aspect of intellectual property rights. In this research, we intend to study the relationship between intellectual property rights and economic growth for 10 countries of ECO members during 2000-2009. Analysing the effect of intellectual property rights on economic growth is focused on the quantity index of intellectual property rights. The key finding of this study suggests the significant effect of intellectual property rights on economic growth of the ECO member countries.

Key words: Intellectual Property Rights, Economic Growth, ECO.

JEL Classification: E11, C52, C22, B52, O48, O43, P48.

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1. Introduction

Today supporting intellectual property right has made the international policy worried. Intellectual property owners encounter artistic imitation or art stealing not only in internal markets but also in external markets especially in less developed countries. Recently, global negotiations have been accomplished for higher level of supporting intellectual property and harmonizing standards. The followers of these actions believe potential economic advantages in some areas of more innovation flow in more business and foreign direct investment (Butler, 1990). Effective maintenance of intellectual property rights is a suitable tool to preserve the rights of economic activists about their innovation and invention. Guarantying intellectual property rights allows their owners to discuss with trade companies or individuals and investors about attracting capital without being afraid of copying their innovations and then they could offer the new product to the market. Furthermore, a researcher, as a right individual, needs performance guarantee to ensure about returning his/her intellectual investment. What has helped the developed countries to achieve their scientific and productive goals is presenting a certain and accurate definition of intellectual, spiritual, and material investment for real and legal individuals; because an exact definition of distinct and compiled economic relation among knowledge producers and its users under the supporting laws leads them to be encouraged in increasing the volume of investments.

Now these laws are not limited to developed countries. Also there are some agreements in this field in international level and this caused performing great and various projects in different countries. In fact, accepting the law of providing intellectual property rights by different countries has caused calmness and motivation for the researchers of different nations. Intellectual property rights are among the private rights that in one hand, its goal is respecting the producer's rights and in other hand, it is a kind of economic and social support. In other words, the aim of intellectual property rights is respecting the spiritual or moral rights and the material and financial rights of the author. Intellectual property which consists of industrial property and literary artistic property is so important that the countries, more than their internal laws, have signed various contracts in an internal level to support it, and have started to perform them.

The assumption of this article is based on this matter that economic advantages are affected by increasing the support of intellectual property. In other words, this article specially studies that

how supporting the royalty would affect the economic growth in a long time. The experimental and theatrical works have studied the importance of innovation and technology in economic growth, but only a few experimental works have studied the effect of institutions on making motivation and innovation and changing technology like the laws of intellectual property.

Analyzing the effectiveness of intellectual property rights needs to have the quantitative measurement of the authority and firmness of intellectual property rights in a country. This article studies the role of intellectual property rights on economic growth by presenting the quantitative index about Iran and nine other countries member in ECO over the period 2002-2009. Although the studies about economic growth emphasize the importance of knowledge (Mankiw, 1992; Park, 1995; Lichtenberg, 1992), none of these studies show the importance of allocating property rights to knowledge in economic growth process. On the other hand, experimental analyses of intellectual property rights (Ferrantino, 1993; Mansfield, 1994) have concentrated on the effect of intellectual property rights in direct external investment and innovation that these effects are also not related to the long term growth.

Gould and Gruben (1996) and Park and Ginart (1997) study the relation between economic growth and intellectual property rights but their research is different from present research in two aspects: firstly their measuring is from intellectual property rights based on Rapp & Rozek criteria while this article has used evaluated indexes by Heritage institution and freezer organization. Secondly, this article emphasizes the quality of intellectual property rights affecting economic growth in long term. Finally we add some of the related studies consider the relationship between intellectual property rights and economic public growth (Torstensson, 1994; Svensson, 1994; Sachs and Warner, 1995). These vast studies generally have defined property rights and have not mentioned to the role of intellectual property rights while this article concentrating on the support of intellectual property has turned to investigate the role of these rights in economic growth and development in a special way.

The result of this paper includes discussion in Section 2, economic development and intellectual property in Section 3, related literature in Section 4 and the model and estimation in Section 5. The final section concludes the main results.

2. Conceptual Discussion

Intellectual property is the rights resulting from the creating and creator of intellectual activities in scientific, industrial, literal and artistic fields which are made via knowledge, art or innovation.

In fact, intellectual property right is a legal instrument and an institution supporting the creation of a thought (like inventors, innovators, artists, men of letters, and designers). The meaning of intellectual property right has been expanded and today it includes not only royalty, compiling fees, brand and industrial designing but also business affairs, business right for planting, geographical indexes and rights related to designing concrete plans. Among these subjects, royalty, brand and compiling fees have historically the most important role in industrializing Europe and North America (Ross, 2003). Royalty is important for inventors because it gives them this right to prevent using, selling, or importing their inventions for the certain period of time under the law of intellectual property right relating to business. Compiling fee legally supports authors for their literal and artistic works and gives them exclusive right to sell the product in any way like recording the voice, printing and film. On the other hand, brands are marketing instruments which are used to support the difference of products or services of a country or a firm from the ones of another firm or country.

Desired models also are considered as a kind of royalty which support detailed inventions and innovations wisely. Here although an innovation is needed, the conditions of taking its royalty usually have less difficulty about royalty, and also the period of its supporting is shorter. The logic which exists behind desired models is that it supports the inventors and innovators who does not exactly have all conditions of supporting royalty but their work is useful for community. Desirability models usually support the function aspects of a product in mechanical fields, not external changes of the product (like industrial designing). Of course, there is no global gathering about what includes desirability model and lack of harmony in this field in global level means that most countries use such products by different names like wise right, small right, desirability certificate, creativity certificate, and desirability innovation.

Geographic signs identify a good that its origin is from which land, area, and location of the countries members' world trade organization (WTO). When a quality or other characteristics of a good is basically related to geographic origin, geographic signs give the owner this right

to impede the third person to use the supported sign. The other matter is about coactive signs when a group agree to use a sign in common to define the origin of the product. Of course, there is a significant difference that shows because the sign of collective group is set by national law so every country uses certain conditions to support collective sign and although it is against the public benefit, it might prevent supporting it. This sign implies that the confirmed organization or individual succeeds to revive quality certificate by using this sign and certificate. The aim of this matter is to keep the quality of a product. Here also the countries are free to have their supporting conditions (Ross, 2003). Business code is another form of supporting in which valuable information like producing methods or business program support the information to be disclosed in a bad way. When the business codes are learnt legally, they would become public goods.

Due to this question that why exclusive right should be given to intellectual properties it is believed that when an inventor, innovator, writer or painter has exclusive right to impede its reproduction and selling by others, the community would profit. This conclusion is based on two assumptions: firstly, it is assumed that such right encourages the owners and motivates them so inventors are encouraged to invent, writers are encouraged to write and other artists are encouraged to create their works. Secondly, little by little more inventions and innovations enter public goods and the more people encounter more innovations economically and culturally, the quality of their lives would improve more, meanwhile this increases competitiveness and creativity in community. Another explaining is related to rights. Here, it is reasoned that intellectual property is basically a subject related to justice but not a public policy. The laws are related to intellectual property right to define, identify, and perform property rights but they are not the source of these rights. Because benefiting property right is about a human right and natural right of a creative work. According to this opinion, illegal use of others inventions or intellectual works is not appropriate and causes divestment of others freedom to benefit their works.

In the early 1990s, intellectual property right was one of challenging economic -politic subjects in international relations and includes discussions related to public health, food safety, education, business, politics, industry, traditional knowledge to biological variation, internet, entertainments, media, press and other communication tools. During one or two decades

ago, intellectual property right has been changed to a key field along with financial and industrial policies and external develop helps in which developing countries are under pressure to identify their benefits define the policies of public department. Considered that knowledge-oriented economy gains more importance day by day and knowledge industries become significant in production and business, supporting the ideas and innovations is a preference in competitive strategy. Intellectual property right matter from the viewpoint of developing countries and in relation to the works and their outcomes in economic development, poverty erasing, and firm human development is important. Considering the global changes and internationalizing production, distribution, and consumption, it is necessary to consider all aspects of intellectual property right.

3. Economic Development and Intellectual Property

The aim of studying intellectual property right from the viewpoint of developing countries is in relation to economic development, property erasing and firm human development. Here the aim is not giving a text but also is supporting beneficial discussions among political and beneficiary individuals. By clarifying key political subjects, reviewing main subjects and considering the present witnesses and presenting more suitable information sources, it is emphasized on the subjects which are important for developing countries like Iran and the country members in ECO.

Studying the aims related to national and international laws indicates that there is a common perception that in a vast level, the policies related to intellectual property can help the community to be enriched in the following ways:

A. Helping the more extensive improvement of present, new, and useful goods, technical service and information which are obtained by making motivation and encouragement.

B. The highest possible economic level is based on production, distribution progress and developing the dimension of such goods, services and information.

There is more important discussion, that is, what kind of policies of intellectual property helps developing these aims in the best way. Certain objectives and discussions related to intellectual property policy are very various because the governments try to balance different objectives. Most laws related to intellectual property and policies have common fundamental concept and it is assumed that presenting legal

right for whom that invest sources in innovation causes knowledge development, moralities and new stock for society.

Intellectual property rights usually give exclusive credit to the investors so that they can use their innovation for the certain period of time and change them to business benefits. After the certain period of time, these legal rights would be finished and become a public good which everybody can use. Considering the preference of governments, they give different emphasis on ever one of these aims (reward and improving innovation). They support industries investment and global competitive benefit and reward the owners of external technology and cause the improvement of publishing knowledge, provide encouragements to make future innovations and the countries which have investing activities would have technology and encourage information flow and cause more technical capacity-making. Thus the beneficiaries present a range of different aims and benefits which they believe should be provided by intellectual property policies. For example, for the owners of intellectual property, the initial objective may be indemnifying the investors' expenses but this matter might keep and perpetuate the market authority and dominating market from the owners of these rights. One of the main challenges of intellectual property politicians is balancing between the benefits of inventors and investors in one hand and other users of intellectual property such as researchers and consumers in the other hand.

In relation to the developing aspects of the subject, it should be said that intellectual property is not a new matter. These rights have existed in developed countries and also in many developing countries. Nevertheless one of the significant characteristics of intellectual property policy is its relative disconnection from common public discussions in most public politic fields. One of the reasons is complex nature of legal intellectual property policies and coding its legal essence (Ross, 2003).

It is obvious that it has changed a lot during recent years. Intellectual property has found global aspects and it is because of the subject which cannot be ignored for some reasons.

Indeed there have been significant changes in international and legal system because intellectual property right has automatically attracted more attention to the policy related to intellectual property right. Likely, the most important change is entering their agreements in relation to the aspects related to intellectual property rights in business.

For developing countries, changes in property

right policy are usually based on reinforcing the support of property rights owners, have caused more interest toward the unity of development policies and its objective with the policies related to intellectual property. About the effect of intellectual property policies on developing countries such as the ones members in ECO, there are some differences of opinions. On one hand, the adherents of supporting intellectual property in its performance claim that they are unavoidable for developing countries. They believe that reinforcing intellectual property laws help developing countries to make a motivating structure and create a fundamental frame necessary for providing knowledge and publishing and conveying technology and the flow of private investment. In the conditions that all pressures is to keep international competitiveness is existing the view free riding; so that in free riding, other external companies profit of a company is technical and technological investment economically and they potentially the competitive power. In this situation, the policies related to intellectual property right is considered as a way to keep taking the possession of private rant from investment on innovation in relation to international business and investment (Drahas, 2002). But objecting to these explanations to reinforce intellectual property right is based on this matter that such rights will affect the developing countries badly in both long term and short term that include increasing the prices of main medicines beyond the poor s ability, limiting education sources in the schools and universities of developing countries, making stealing or distributing smuggled goods and illegal profiting of traditional knowledge legal, and focusing the self-confidence of weak farmers.

Some critics claim the supporting and protection of intellectual property may reinforce the concentration of the big actors power in economic field and emphasize the necessity of more powerful competitive policies and want to control anti-competitive policies and behaviors. It is estimated that if the laws supporting intellectual property rights are performed completely, the annual source of transferring money to the technology making countries would become in the form of permission right and privilege right for exclusive right of medicine inventions, chip designs, etc.

The potential advantages of such direct external investment may be obtained in a long time that predicting its scale is difficult specially under the variety of politic subjects and economic conditions which affect the decisions

of direct external investment, also there is a risk that intellectual property right can impede and not improve the business flow by limiting the access to market and opportunity for external competitors but the more fundamental matter that makes the critics of this assumption to be questioned is that intellectual property right encourages business investment and innovation on new technology in countries, it means they try to create technology instead of using others technology. In most cases, those who are suspicious about intellectual property right regime are not agreed or disagreed about the support base of these properties but they tend to do a more minute analysis that what goal intellectual property right policies follow basically and whose benefits and under what condition they supply.

In brief, intellectual property right law regime is appearing in the world for developing countries toward serious limiting of the present policy making atmosphere in developing countries which want to design and perform their intellectual property right policies so that they can support their development. Now it is not so clear that in what extent the introduction of intellectual property right and its supporting in a standard way and from the view of economic development is beneficial for developing countries. Now these policies are more beneficial for developed countries and their technical leaders not their technical followers that are undeveloped countries.

Political economy texts always raise this question whether the politic development is the basic of the economic development or vice versa. We should notice that no certain answer has been presented for this question yet and there are two approaches in relation to it. The first one emphasizes on fundamental bed making and starting with democracy and implementing other controls on the government as a mechanism to provide property rights. Despite such political institutions, the investment is expected to be in physical and human invest and therefore economic growth would be achieved. The second one emphasizes on the necessity of economic development to start the process and certainly knows it as the necessity of stable democracy and other institutions. Both approaches have expanded logic bases. The importance of institutionalizing and limiting the government is emphasized by new institutionalizing economy. Recently, the economic growth literature has relied on the effect of good institutions on economic growth. The second approach refers to Lipset (1959) and he himself attributes it to Aristotle. Lipset believes that only in wealth

communities where poverty is relative law, citizens can a Warley contribute in political affairs. He also says that the educated people solve the problems with discussion and choice instead of severe quarrel. Gelser points in this direction that high human invest leads to good policies and more stability policy. The consequence of the main external human invest is not technologic but politic, in the manner that courts and legislation communities have been replaced with guns and these improvements cause more support of property rights and economic growth.

Today the importance of institutions has nearly been accepted like guaranteeing the virtual property rights on economic operation. But what is important here is entering institutions in economic analyses and recognizing the way of their affecting because the effectiveness of most institutions on growth is direct and from different way that identifying these ways and the relations of the institutions with each other is a more important subject than the institutions themselves.

Lack of guaranteeing intellectual property rights from investment channel would affect economic growth and according to this prediction, the effect is negative. For example Lack of guaranteeing intellectual property rights would possibly increase the time preferences price especially for investors who do not like risking. In reaction to this alternative price, long term investment and possibly with high interest would be replaced by short term investment plans with low interest. Barro (1999) talks about the economic effects of some institutions like virtual property rights and judicial system: "As people follow personal interest and benefit, they invest only in the case that the logic probability of benefitting their effort would exist. So if the property rights are not provided well – for example because of high crime, there is a high possibility of illegal publishing of the works-people will endeavor less and will not invest".

People seek their personal benefits and the system of free marketing leave people free to choose the best way for their personal benefits in a way that according to the basis of property right, their rights would be defended. Therefore, people will have enough motivations to follow their goals. The clear quality of the prices is that the motivation of the people would be formed with system necessities. In specific goods, for example, if demand for goods increases because of a certain reason, surely the price will increase and then the motivation of producing will increase. Therefore, the producer will increase his production, and finally the system will

demand producing new goods for additional demand rate, without this matter that any individual did something against his motive and desire. On the other hand price factor not only is a motive to do more suitable work for the information about demand for more producing but also causes the product to be produced in the most efficient way. So it is expected that this system could produce goods with the lowest price and during least time and deliver to its consumers, without needing a strong organizing or spending high costs, or forcing anyone to do something against his willing.

Of course we should mention that all the above characteristics are true for a competitive market. Certainly, when property rights are not guaranteed, the price system will not function efficiently and the given signs for price will not lead to production anymore. Guaranteeing property rights creates a vast and efficient news net of individual interactions that finally leads to optimal specification of economic sources and individual desirability like what has happened in developed countries where guaranteeing property rights have caused competition and optimal allocation of sources by prices system.

Guaranteeing property rights, such as virtual property rights, has several important consequences in market by making competition. First, promoting qualified people, it means that what is determiner is competitive conditions is the qualification of individuals and the quality of goods not the relation to exclusive government and power. In other words, competition destroys the monopolist. Although in market system, the non-competitive systems may be formed which cause the omission of weaker competitors, there are not its negative effect on the concentrated economy in which there is no guarantee for property rights. Second, another important consequence of competition is the bankrupting of low-income agencies. We can consider bankruptcy as a master stroke of market system. In other words, inefficiency would be oppressed severely in market. In competition, goods with lower quality and higher price are sentenced not to be produced anymore. On the other side, competitiveness from the viewpoint of OECD means the ability of a nation in producing goods and services in international markets and simultaneously keeping and promoting the level of quality of citizens per capital in a long time (Behkish, 2001).

Optimal allocation of sources and increasing profit would increase the countries competitiveness power and according to the economists opinion, increasing the competitiveness level via increasing profit is

better and more effective that competitiveness resulting in cheap primary sources. In fact the companies and countries which have become competitive by the low price of primary materials would encounter difficulty in low-costs methods or more developed technology (Behkish, 2001). Guaranteeing intellectual property right causes entrepreneurs and investors to provide an essential bed to form innovative motivations. Innovation in producing new goods intending personal benefit is a work which is done by private sector. Also private sector, in competition in market, will try to do its producing with the lowest cost that these operations automatically cause continuous growth in production, increasing effectiveness and economic growth under the little of entrepreneurship.

4. Related Literature

Gould and Gruben (1996) examined the role of intellectual property rights on economic growth. In this research, the index of Rapp and Rozek has been used. The result of the study done in 95 countries during 1960-1988 showed that keeping the intellectual property rights more has a positive effect on economic growth. Also in this study the relationship between keeping intellectual property rights and growth in open and close economies was examined. The findings showed that the effect of keeping intellectual property rights more is slightly more in more open economies.

Branstetter, et al. (2005) have studied that whether reinforcing intellectual property rights would increase transferring international technology or not. They conclude that more providing intellectual property rights increases inventions and innovations in world economy and raises the economic growth. The results of this study show that existing powerful intellectual property rights will increase technology transferring among countries and will have extra benefit for them.

Chen and Puttitanun (2005) have studied innovation and intellectual property rights in 64 developing countries. It was show in this study that increasing innovation policies in a developing country increases intellectual property rights simultaneously; it means, the country which have less ability in managing innovation expansion show less motivation to keep intellectual property right. Therefore, we can conclude that the rate of the intellectual property rights of a country depends on its development level.

Eicher and Garsia-Penalosa (2008) studied the necessities for economic growth that how

individual motivations affect the economic growth to keep intellectual property rights. The result of this study showed that more protection of intellectual property rights increases returning to innovation, and when the innovation motivations are supported, it can affect the economic growth. Also supporting the provision of intellectual property rights increases the motivation of private sector to invest in research sector producing new product increases the income of innovation and leads the private sector toward some effort for more researches. Hence, demand for efficient and skilful labour force would be increased.

Furukawa (2007) examined the effect of supporting intellectual property rights on economic growth in an economy package. Many countries have reinforced intellectual property rights by making exclusive right for inventors. The result showed that an increase of supporting intellectual property rights would increase the length of selling exclusivity, the economic motivation relate to the innovation and then the economic growth would be quicken. But the main problem is that too severe and too weak support would harm the obtained innovation and growth so a balanced amount is needed for growth.

Hori and Iwaisako (2007) studied the effect of keeping intellectual property rights growth in a growth model. The result of the study showed that keeping the intellectual property rights more would decrease the probability of imitation and increase the motivation for motivation. By more keeping also decreases gradually the number of competitive firms because the research and development projects may be time consuming and need huge costs to be completed. In this regard, the result showed that keeping intellectual property rights more has multiple effects of growth. Firstly, it increases the prelisted benefit of research and development of a firm which is a positive effect. Secondly, it gradually decreases the number of competitive firms in which research and development are more active that is a negative effect. Thus the general effect of intellectual property rights is more determined on growth by the relative rate of these effects. Finally the incomplete support reinforces more growth toward the complete support and the growth would be maximized by an average level of support.

5. The Model and Empirical Results

We try to use an appropriate and empirical model in which the basis of explanatory variables has been observed and also the descriptive quality of the model has not been decreased. The following

model was chosen in this direction. In this model, some of variables like work force has been ignored because of assuming the growth price stable. Some other reasons in the relation to omit these variables can be found in the article (Carlsson & Lundstorm, 2002). In this section, the equation specified by Carlsson and Lundstorm (2002) has been used as the basic model. The economic growth model is as follows:

$$g_{it} = \alpha_0 + \alpha_1 g_{it-1} + \sum_{i=1}^n \beta_j A_{jit} + \varepsilon_{it} \quad (1)$$

The variables in this model are defined as:

g_{it} : Growth of country "i" in year "t"

g_{it-1} : Growth of country "i" in year (t-1)

A: other determinants of economic growth.

In addition, Carlson and Lundstorm examined the effect of economic freedom on growth in 74 countries during 1975-1995 in an article titled "Economic freedom and growth: analyzing the works":

$$g_{it} = \alpha_0 + \alpha_1 INV_{it} + \sum_{j=1}^7 \beta_j EF_{jit} + \varepsilon_{it} \quad (2)$$

In this model g_{it} is the growth of country "i" in year "t", INV_{it} the role of investment in country "i" in year "t", EF the value of economic freedom index and EF_{jit} is "j" component of economic freedom index in country "i" in year "t". It is mentioned that the used economic freedom index in this article includes: 1. government size, 2. market structure, 3. freedom in using credits, 4. financial policy and price stability, 5. freedom in business with foreigners, 6. freedom in exchange in capital market and 7. legal structure and protecting property rights (Carlsson & Lundstorm, 2002). In this model, only the effect of guaranteeing intellectual property rights index and the whole sample would be examined instead of studying every economic freedom sub-indexes.

The model which estimates the rate of guaranteeing intellectual property rights on economic growth is Carlsson and Lundstorm (2002). In addition, only the effect of guaranteeing intellectual property rights on economic growth is examined, and hence this model is specified as follows:

$$lgdp_{it} = \alpha_0 + \alpha_1 dgdip_{it-1} + \alpha_2 ldip_{it} + \alpha_3 lcp_{it} + \varepsilon_{it} \quad (3)$$

where the variables of this model are denoted as: economic growth of countries in year "t", $lgdp_{it}$ economic growth in countries in year (t-1), $dgdip_{it-1}$ investment rate in countries in year "t",

lcp_{it} countries' guaranteeing intellectual property rights rate in year t, $ldip_{it}$. The specified model is estimated for Iran and countries members in ECO.

In this study, panel data method is used because it provides a very appropriate environment to expand estimation methods and theoretical results, and researchers would be able to use time series and sectional data to study some matters which studying does not exist in just either sectional or time series environments. Panel data method is a method to integrate sectional and time series data (Baltagi, 2005).

This study tries to examine the hypothesis that guaranteeing virtual property rights has a positive effect on growth. In most studies and researches done in property rights field, two alternative indexes have been used representing property rights. The indexes of Heritage organization and freezer institution each consists several sub-division including intellectual property rights. The used index in this study is the index of freezer institution. It should be mentioned that classifying this index is between zeros to ten. Zero shows the lowest rate of guaranteeing intellectual property rights and ten shows the highest.

This research studies the effect of guaranteeing intellectual property rights on countries' growth by the model.

Table (1) reports the empirical results of the ECO growth model specified by Equation (3).

Table 1: Estimation Result for Economic Growth of the ECO Member Countries

The independent variables	Coefficient	Z Statistics	R ²
dgdip	.0001785	.0000249	
ldip	.5384364	.1570156	0.8191
lcp	.2086463	.0539068	
c	1.545579	1.236827	
Method	Panel data - Random effects		

Source: Authors

Table (1) reports that significant and positive effect of guaranteeing intellectual property rights on economic growth. Also the effect of previous-term growth on this term growth is positive and highly significant. In other word, the growth of each term is also a function of one period lag of growth. Also the effect of investment on economic growth is positive.

The obtained results show that the rate of guaranteeing intellectual property rights has a positive and effect on economic growth level in significant in ECO members. It means that the

countries which have higher rate of guaranteeing intellectual property rights have more economic growth in the next period and vice versa. Therefore, it can be concluded that being heedless to guarantee property rights in vast level will lead to decrease economic growth in future terms. Considering the reported results, the assumption of the present study based on the subject that supporting intellectual property rights lead to economic growth can not be rejected, for the countries in the ECO region.

6. Conclusion

This paper has explored the impact of supporting intellectual property rights provision on economic growth. The gap in virtual property systems between developed and a developing country is as one of the reasons of difference in growth level and economic development between the whole world countries. Many of the developing countries have fallen behind from international economic growth because of weak point in intellectual property rights system. While the developed countries have reached sustained and inclusive growth based, which is on preserving their intellectual property rights since Second World War. In this study, the relation between intellectual property rights and economic growth was explored for 10 country members in ECO during 2000-2009. The key founding of this study has pointed out the significant effect of intellectual property rights on economic growth. The result reveals the fact that promoting the guaranty of intellectual property rights causes improvement in economic growth in ECO countries.

It also can be concluded from the obtained results that guaranteeing property rights is one of the components of economic freedom index; so economic freedom has a significant and positive effect on economic growth of the ECO members.

The implication is that the lack of guaranteeing intellectual property rights is a border to materialize economic growth, clear definition and exact guarantee of intellectual property rights is a producing condition not a sufficient condition to materialize economic growth. Therefore, to suffice the condition to materialize economic growth in the result of guaranteeing property rights in general and guaranteeing intellectual property rights in specific, the political borders should be removed and an optimal solution should be found to materialize this affair in long run in institutional environment frame.

References

1. Barro, R.J. (1999), "Determinants of

- Democracy," *Journal of Political Economy*, 107(6), 158- 183.
2. Behkish, M.M. (2001), *Iran's Economy in the Context of Globalization*, Published by Ney Publications, Tehran (in Persian).
3. Branstetter, L., F. Raymond and F.C. Fritz (2005), *Do Stronger Intellectual Property Rights Increase International Technology Transfer?*, Empirical Evidence From U.S. Firm-Level Data. Working paper 11516, <http://www.nber.org/papers/w11516>.
4. Butler, A. (1990), "The Trade – Relation Aspect of Intellectual Property Rights: What Is at Stake?," *Federal Reserve Bank of St. Louis Reviw*, 72(6), 36-46.
5. Carlsson, F., S. Lundström (2002), *Economic Freedom and Growth: Decomposing the Effects*, Working Paper in Economics, No. 33. January 2001. Department of Economics. Göteborg University.
6. Chen, Y. and T. Puttitanun (2005), "Intellectual Property Rights and Innovation in Developing Countries," *Journal of Development Economics*, 78, 474-498.
7. Drahas, P. (2002), *Developing Countries and International Intellectual Property Standard Setting*, Commission on Intellectual property Rights, Study Paper 8, London: Commission on Intellectual Property Rights.
8. Eicher, T. and C. García-Peñalosa (2008), "Endogenous Strength of Intellectual Property Rights: Implications for Economic Development and Growth," *European Economic Review*, 52, 237–258.
9. Ferrantino, M.J. (1993), "The Effect of Intellectual Property Rights on International Trade and Investment," *Review of World Economics Weltwirtschaftliches Archive*, 129(2), 300-331.
10. Furukawa, Y. (2007), "The Protection of Intellectual Property Rights and Endogenous Growth: Is Stronger Always Better?," *Journal of Economic Dynamics and Control*, 31(11), 3644-3670.
11. Gould, D.M. and W.C. Gruben, (1996), "The Role of Intellectual Property Rights in Economic Growth," *Journal of Development Economics*, 48, 323-350.
12. Horii, R. and T. Iwaisako (2007), "Economic Growth with Imperfect Protection of Intellectual Property Rights," *Journal of Economics*, 90, 45-85.
13. Ross, L. (2003), "Law, Endowments and Property Right," *Journal of Economic Perspectives*, 19(3), 61- 88.
14. Lichtenberg, F. (1992), *R&D Investment and International Productivity Differences*, in H. Siebert, ed., *Economic Growth in the World*

- Economy, J.C.B. Mohr, Turbingen, 89-110.
15. Lipset, S.M. (1959), "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," *American Political Science Review*, 53, 69-105.
 16. Mankiw, N.G., D. Romer and D. Weil (1992), "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, 107(2), 407-438.
 17. Mansfield, E. (1994), Intellectual Property Protection, Foreign Direct Investment and Technology Transfer, International Finance Corporation Discussion Paper, 19.
 18. Park, G.W. and J.C. Ginarte (1997), Intellectual Property Right and Economic Growth, *Contemporary Economic Policy*, Jul 1997, 15, 3, ABI/INFORM GLOBAL.
 19. Park, G. W (1995), "International Spillovers of R&D and OECD Economic Growth," *Economic Inquiry*, 33(4), 571-591.
 20. Sachs, J.D. and A. M. Warner (1995), "Economic Reform and the Process of Global Integration," *Brooking Papers on Economic Activity*, 1, 1-95.
 21. Svensson, J. (1994), Investment, Property Rights and Political Instability: Theory and Evidence, Institute for International Economic Studies, University of Stockholm, Seminar Paper No. 547.
 22. Torstensson, J. (1994), "Property Rights and Economic Growth: An Empirical Study," *Kyklos*, 47(2), 231-247.