Czech University of Life Sciences Prague Faculty of Economics and Management Department of Economics



BACHELOR THESIS China IPR Protection and World Trade Organization

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

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Business Administration

Thesis title

China IPR protection and World Trade Organization

Objectives of thesis

In the thesis role of China in the World Trade Organization is evaluated. For example, also signatory to other agreements, including the WTO agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) is evaluated since IPR protection remains a highly contentious issue between China and other countries. It is necessary to evaluate China's progress on IPR since joining the WTO, and what role do TRIPs play in this process. Areas such as patents, trademarks, and copyrights are evaluated.

Methodology

To achieve goals of the thesis, following methods are used. For the literature review methods of extraction, abstraction, concretization, induction and deduction are used. For analytical part, basic statistical methods as well as time series prognosis methods are used. Also, methods of numerical analysis are used for comparison.

The proposed extent of the thesis

35+

Keywords

China, WTO, intellectual property, foreign trade

Recommended information sources

An Environmental Impact Assessment of China's WTO Accession: An Analysis of Six Sectors Bown, C. and Pauwelyn, J. (2010). The law, economics and politics of retaliation in WTO dispute settlement. Cambridge, UK: Cambridge University Press.

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SATUTORY DECLARATION	
I, the undersigned, hereby declare that the thesis "China II Organization" is the result of my personal work and only references.	
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China IPR protection and World Trade Organization

Abstract:

The bachelor thesis represents World Trade Organization (WTO) and role of China in it. It includes the IPR protection, definition and types, where is expresses the advantages of the specific organization to the World economy. China is one of the successful countries with the fastest growing market in the World Trade Organization and the largest producer of consumer goods in the world.

The relative comparison of China to USA is measured. The correlation between GDP of China and violation of Property Rights (PR) in years from 2006 to 2015 is tested. The null hypothesis is tested. The Analysis of Regression is used.

Currently, Intellectual Property Rights (IPRs) has become one of the hottest, most significant challenges of trade agreements. Despite the extended demand that IPRs support study activities and inspire technology broadcast, the influence of IPRs on socio-economic evolution process of developing countries has apparently reflected in many fields, including health, agriculture and education. IPRs will not fluctuate to continue to have a significant effect on developing countries for many years to come.

Key words: WTO, IPR protection, World Economy, socio-economic evolution, GDP, Regression.

Ochrana práv duševního vlastnictví v Číně a Světová obchodní organizace

Abstrakt:

Bakalářská práce pojednává o Světové obchodní organizaci (WTO) a roli Číny v ní. Součástí práce je výklad ochrany práv duševního vlastnictví, její definici a jednotlivé typy. Rovněž jsou v práci zmíněny výhody této konkrétní organizace pro světovou ekonomiku. Díky svému nejrychleji se rozvíjejícímu trhu se Čína řadí mezi jedny z nejúspěšnějších zemí v rámci Světové obchodní organizace a je považována za největšího výrobce spotřebního zboží na světě.

Dále je v práci porovnán hrubý domácí produkt (HDP) Číny s hrubým domácím produktem USA. Pro nalezení vzájemné souvislosti vývoje HDP Číny a porušování práv k duševnímu vlastnictví byla vybrána data od roku 2006 do roku 2015. Regresní analýzy bylo využito k nalezení významného rozdílu mezi dvěma proměnnými veličinami.

V současné době se práva duševního vlastnictví stávají jednou z největších a nejžhavějších výzev v rámci obchodních dohod. Přes rozšířený nátlak, aby práva duševního vlastnictví byla

podporována studijními aktivitami a inspirovala nové technologie vysílání, vliv práv duševního vlastnictví na sociálně-ekonomický vývoj rozvojových zemí lze pozorovat v mnoha oblastech, především zdravotnictví, zemědělství a vzdělání. Tento vliv práv duševního vlastnictví dozajista nebude v nadcházejících letech kolísat a nadále bude významně ovlivňovat vývoj rozvojových zemí jako doposud.

Klíčová slova: WTO, ochrana práv k duševnímu vlastnictví, světová ekonomika, sociálně-ekonomický vývoj, HDP, regrese.

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List of Abbreviations

WTO World Trade Organization

IPR Intellectual Property Rights

TRIPS Trade-Related Aspects of Intellectual Property Rights

GATT General Agreement on Tariffs and Trade

FDI Foreign Direct Investment

ITO International Trade Organization

NIC New Industrialized Countries

R&D Research and Development

SWOT Analysis for strength, weaknesses, opportunities, threats

1. Introduction

World Trade Organization (WTO) is the only international organization that intends to standardize and liberalize international trade activities (WTO, 2014). From the initial International Trade Organization (ITO) to the General Agreement on Tariffs and Trade (GATT) and to the final WTO, this organization experiences 70 years development and has 160 members all over the world until 2014. It is noticed WTO gives some specific benefits to most of the countries, including those directly relate to trade and others indirectly affect culture and manners. ((A)WTO,2014)

However, some issues are also becomes more and more transparent after the accession. Increasing number of economists and social scientists are addressing the disadvantages WTO give to the world such as environmental problems and social inequality. This paper fundamentally examines all the aspects including benefits and challenges cited before. It can be basically separated into two parts. At first, it elaborately talks about three proportions of contents: what is WTO, how to join in the WTO and why do countries want to join in WTO. Concerning that developing countries occupy a crucial position, the second part initially gives a brief introduction of developing countries' specialized provisions. Narrowing down from the developing countries, this essay mainly focuses on one of the most important developing countries in the WTO-China. The historical process and motives of China's accession, the positive effect and unexpected obstacles are all carefully examined in the following contents. World Trade Organization, known as WTO, is the most significant and the only international organization that deals with the world trade between nations. The center of WTO is located in Geneva, Switzerland. It was officially created by Uruguay Round negotiations in 1995 and until June 2014, with the development of several decades, there are in total 640-secretariat staffs and 160 full members in WTO that represents over 98% of world trade ((B)WTO, 2014). The working scheme of WTO is not by formal vote but by consensus. Under the governance of the highest-level body the Ministerial Conference, current programs and future agenda will be discussed and negotiated until reaching the final consensus. Among all the functions WTO plays, the most fundamental one is to administer trading agreements and sweep the trading obstacles, making sure that all the policies relating to trade sustain a transparent and stable position in order to be viewed by individuals,

companies and governments. If there exists some disputes due to the conflicting interests, WTO will accordingly start up its Dispute Settlement Mechanism, becoming to an efficient forum to interpret and to handle all the disputes without resorting to violence or even war rather to reach consensus through the international negotiations. Under its monitor, the transparency of trade policies will be largely improved ((C)Bearce, D.H., S.E. Finkel and A.S. Pérez-Liñán, 2010). Meanwhile, WTO becomes to the third significant international organization that affects the global economy (besides International Monetary Fund and the World Bank). This influential position makes WTO easily corporate with other international organizations and further does beneficial to the trade issues. The permanent structure WTO has been evolved from the International Trade organization (ITO). Leading by the United States and several other developed countries after the World War II, ITO functions as a system to emphasize the open and nondiscriminatory trading patterns in terms of improving the social economic conditions of all countries. However, ITO and its treaty have not ever gone into effect due to the disproval of some signatories. Rather, its failure gives birth to the important agreement called the General Agreement on Tariffs and Trade (GATT). GATT, the predecessor of WTO, officially took effect in 1948 and became to the principal regulations of international trade within the next 47 years ((D)Jane Korinek and Iza Lejárraga. 2012). The GATT is not in a static position but experiences a dynamic evolution. There are generally four bouts which significantly push the development of GATT. The first one is to help the recovery and integration of Europe after suffering from the World War II. Then, in Kennedy Round, USA wants to alleviate the discriminatory effects of European integration through tariff reduction from multinational trade negotiations. In 1973 Tokyo Round, GATT dealt with three major developments including the collapse of Bretton Woods, the oil price shock and the major trade role of Japan. The Forth one Uruguay Round revisited the position of developing countries and sought the ways to integrate them.

At the same time, permanent trading structure WTO is officially established in the last round. It incorporates many changes such as new trade agreements, stronger mechanism to solve dispute and regularly review of all the trading policies. Under this, WTO finally went to effect on January 1st, 1995. ((E) The GATS: AN analysis, 2013)

The pivotal status of GATT is embodied by the fact that some trade principals are still used today by WTO. The first principals are nondiscrimination treatment among countries and within

countries. The international principal, also called the most favored nation principal, points out that any advantage given by one contract party must be unconditionally enjoyed to all the other contract parties. The national treatment emphasizes that all the goods, no matter produced domestically or imported, must be treated equally. The second one addresses market access, specifically open and fair application of trade barriers. Tariff, for example, is one of the most common trade barriers, and at that time is bounded to a maximum level and cannot increase over a negotiated level. Now besides the tariff issues, WTO starts to handle nontariff barriers such as further negotiations with regards to intellectual trade property rights, health and environmental standards. This is the good reflection of the direction of world economy development. ((F) OECD/WTO, 2011).

2. Thesis Objectives and Methodology

2.1. Objectives

The thesis concentrated on to evaluate the China and its role in WTO. The establishment of World Trade Organization gives more opportunities to the growth of China and protecting its Intellectual Property Rights. I made a specific research of finding out TRIPS and other agreements like as GATT and so on. The literature part of the theme is based on highly contentious issues of China between other countries. In general, I look at China like it is a biggest economies worldwide. China's patents foundation and years when came into real. Domestic patenting, foreign patenting, an International Trade are included as evaluation of IPR protection of China.

2.2. Methodology

Due to researches of theoretical and analytical sides, the correlation of violation Property Rights is tested. The methods and discussions are expressed and given in lit of figures and tables. The practical review of the bachelor thesis is strongly related to testing Pearson r value, p value, significance. Numerical analysis used for comparison GDP of China relatively to the USA GDP...

3. Theoretical review

3.1. The aim of creation of WTO

The aim of the WTO - to ensure the functioning of the global trade system based on common rules so that markets remain open and that access to them could not be broken by introducing random and arbitrary restrictions on imports. At the same time, WTO members have the right to impose anti-dumping and countervailing measures to restrict access to its market. The introduction of such measures possible with the advent of the crisis situation in a particular industry or in connection with the violation of the principles of the WTO trading partners. Nevertheless, the business community in many countries are still not fully aware of the benefits of the WTO trading system. The main reason for this - the huge complexity of the system, that still hinder the business people to get benefits from it and understand its rules and regulations. As a little known, that the legal system is not only commercially beneficial to producers and trading companies, but also provides them with more rights((G) Caroline Lesser, 2007)

3.1.1. The basic principles of WTO

The main purpose of the GATT / WTO is to create on the basis of uniform legal rules of the trading system in which companies of the WTO member countries can trade with each other on the basis of fair and free competition. GATT rules at first glance may seem complicated and confusing, but in New Delhi it is based on three simple principles:

- 1. The principle of Most Favored Nation (MFN), which means the provision of foreign goods and foreign service providers to the same conditions in the domestic market of the State party, which provided foreign goods and foreign service suppliers from third countries participating. That is, we are talking about non-discrimination between the goods (works, services) from different participating countries;
- **2.** The principle of national treatment, which suggests that the participating countries should not apply less favorable regime for foreign goods and services, than that applied to similar domestic goods and services. At the same time in respect of services possible to make certain

exceptions, which will give national service providers more favorable conditions for the activities on the market;

3. The principle of transparency, which is crucial in the WTO legal system. Although formally it is fixed only in the General Agreement on Trade in Services (GAST), this principle permeates the entire system under the WTO Agreements. It means that in order to bring to the attention of the foreign suppliers of goods (works, services) all information relating to trade in the products (works, services) in the country, the country must publish documents containing legal norms that regulate the relationship data. In addition, each country undertakes to establish an information center, where other Member States may obtain information on the laws and regulations in force in the relevant sectors of the economy. The principle of transparency is an expression of the international legal principle of non-unpublished regulations, which are based on the legal systems of all civilized countries of the world. ((H) Aid for Trade case story OECD/WTO, 2011)

3.2. China and its role in WTO

China formally joined the World Trade Organization (WTO) 15 years ago. At that time, many countries have not yet realized that these three letters will change China and China will change the world. During this time, China ranked first in the world in terms of exports, on the second place in terms of imports, it has become the second largest economy in the world and ranks second in the world by volume of used foreign investments. Over the past 10 years, the socio-economic development of China has achieved great success, reform and opening up policy has entered a new phase.. Reached growth and development of China also influenced and benefited the rest of the world. We sincerely and faithfully follow the rules of the WTO, China has always sought within the organization to promote the sustainable development of international trade and economic relations. Despite the financial crisis and the current global economic downturn, China has increasingly become an important engine in promoting global economic growth. According to statistics, the share of the Chinese economy in the world GDP rose from less than 4 per cent at the time of China's accession to the WTO in 2001 to 9.3 percent in 2010. ((I) The World Bank, 2016) Special role played by the series of measures taken by China to deal with the financial crisis, which led to the expansion of domestic demand and effectively contributed to global economic recovery.

At the same time, quality and cheap products made in China have allowed buyers and consumers from around the world to save a lot of money. However, despite all the efforts made by China, and its contribution to the development of the world economy, some countries still blame the trade imbalance on China. In fact, looking huge trade surplus of China is a consequence of the existing methods of statistical calculations. In the current context of globalization of the World economy and strong fragmentation of production chains and components for a single product can be produced in different countries, collected in one country, then sold to a third country. Existing rules on the origin of the product is not able to fully describe the entire production process, they represent a place of production of the country in which the product was collected and sent for export. According to customs statistics, the volume of Chinese exports in 2010 amounted to 1 trillion 577.9 billion dollars, including US \$ 740.3 billion accounted for exports of processed products, accounting for about 50 percent of total exports. Export enterprises with foreign capital and 55 percent of total exports in 2010. These figures indicate that among the goods intended for export from China account for a large proportion of the goods produced in China, but includes all the statistical data in China's trade turnover. ((J) Data, OECD, 2010) As a result of this phenomenon occurred when the statistics relate to the goods in China, but in practice, the profit obtained elsewhere. WTO chief Pascal Lamy believes that in an era of globalization and the development of the system of separation of production, the goods can no longer be simply stick a label production any particular country, as they are the result of world production. China has realized the necessity of avoiding excessive an export-model of economic development, the need to stimulate domestic demand, the settlement structure of the economy, promote the development of new industries. In the context of stable exports need to expand imports, to increase investments abroad. It is worth noting that 10 years after China's accession to the WTO, China has on average imported goods of \$ 750 billion per year, which is equivalent to the creation of more than 14 million jobs for its trading partners. Chinese enterprises engaged in investment activities abroad, hired about 800 thousand local workers, each year enterprises pay local taxes in excess of US \$ 10 billion. In addition, according to forecasts in the next 5 years, the volume of Chinese imports will exceed 8 trillion US dollars. By 2015, the volume of retail sales of consumer goods in China should reach 31 trillion yuan, which will provide businesses around the world even more opportunities for business. At the same time, China plans to further decrease the "threshold" for the imported goods. Chinese President Hu Jintao during the 6th summit of "Big Twenty" said that in order to

further promote the development of the least developed countries. In the framework of South-South cooperation the Chinese side is ready to provide tariff preferences in the form of a zero tax on 97 per cent of trade positions of the least developed countries, which China established diplomatic relations.((K) WTO, 2015)

3.3. TRIPS

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) - An international agreement, part of the package of documents on the creation of the World Trade Organization. The Agreement establishes the minimum standards for the recognition and protection of intellectual property owned. This agreement made during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994. The TRIPS Agreement makes it possible to use highly efficient mechanisms of dispute resolution available in the WTO in relation to intellectual property. These mechanisms include the possibility of applying sanctions by reprisals. If, for example, in one country, committed a violation of the rights of the author of the other country, the latter, having a controversial issue through the WTO procedures for conflict resolution, may increase the duty on imports of certain goods from the offending country on its territory. WTO member countries, desiring to reduce distortions and impediments to international trade and taking into account the need to promote effective protection of intellectual property rights and ensure that the implementation of intellectual property rights measures and procedures do not themselves become barriers to legitimate trade; Recognizing this purpose the need for new rules and discipline concerning. ((L) Mark F. Schultz and Douglas C. Lippoldt, 2014)

- (A) the applicability of the basic principles of GATT 1994 and having to do with treaties or conventions on intellectual property;
- (B) promoting adequate standards and principles relating to existing intellectual property rights, trade-related, and their scope;
- (C) ensuring efficient and appropriate means to bring in action intellectual property rights relating to trade, taking into account differences in national legal systems;

- (D) ensuring effective and expeditious procedures for a multilateral solution to the problem of prevention and settlement of disputes between governments;
- (E) transitional arrangements aiming at the fullest participation in the results of the negotiations;
- ((M) PROMOTING IPR POLICY AND ENFORCEMENT IN CHINA, 2005)

Recognizing the need for a multilateral framework for the principles, rules and disciplines relating to counterfeit goods of international trade;

Recognizing that intellectual property rights are private rights;

Recognizing the basic objectives of national systems that underlie the state policy on protection of intellectual property, including developmental and technological objectives;

Recognizing also the special needs of the least developed WTO members in respect of maximum flexibility in the domestic implementation of laws and regulations in order to assist them in the creation of a sound and viable technological base;

Emphasizing the importance of reducing tensions by reaching more commitments to resolve disputes on trade-related intellectual property issues through multilateral procedures. Desiring to establish a mutually supportive relationship between the WTO and the World Intellectual Property Organization (here in after referred to in this Agreement as "WIPO") as well as with the other having to do with international organizations ((N) Caroline Paunov, 2011)

3.4. Definition and types of Intellectual Property and concept of IPR

The origin of the expression "Intellectual Property" is usually associated with French law, the end of the XVIII century, and, in particular, with the theory of natural law, which acquired its most developed in the works of the French philosophers - Enlightenment (Voltaire, Diderot, Helvetius, Holbach, Rousseau). According to this theory the right of the creator of any creative results, let it be a literary work or invention is its inherent natural right, arises from the very nature of creative activity and exist independently of the recognition of the rights of the public authority. The preamble to the French patent law on January 7 in 1791 noted it "Any new idea, the proclamation and implementation of which may be useful for the society belongs to those who created it, and it

would be the restriction of human rights is not considered a new industrial invention as the property of its creator". The term "property" in the usual sense of the word, understand the social relations that have historically relative assignment or allocation of things, material things, which are the objects of property. The most important feature of property is that the owner can use his property as he wishes, and nobody else can lawfully use his property without his permission. Legislative resolution of such economic relations creates "ownership", which is guaranteed by the authority of the state. ((O) IP definitions and types, 2013)

In general understanding of "Intellectual Property" - is the right to the results of intellectual activity of the person in the scientific, artistic, production and other fields. Which is the subject of civil law relations in terms of the right of everyone to own, use and dispose of the results of his intellectual and creative activity, which, being immaterial good, retained for its creators and can be used by other persons only in agreement with them, except in the cases mentioned in the law. In this process of intellectual activity as such (except for organizational and other prerequisites of creative labor) law does not regulate. Only after the completion of the creative development of new results in the field of science, technology, literature and art, are effective rule of law, ensuring the public recognition of the corresponding object, establish its legal status, as well as the protection of rights and legitimate interests of its creator. Any invention (utility model, industrial design, etc.) - this is the solution of the disclosure of the essence of the new art object, which becomes a commodity only when it has a use value. Intellectual property has a dual nature. The right arising from the creator of the achieved results of intellectual and creative activity, like the right to property, which is the person who has created a material thing. The right to creative activity results ensure its owner a unique opportunity to dispose of this result on his own. Including the elimination of third parties from interfering in the exclusive sphere of Tenure can be transmitted to others (or grant permission to use it), and on a number of grounds belong to the property rights and in fact, like the right to property. In parallel with the economic appropriation of intellectual labor results there is a relationship of spiritual appropriation, which is produced by the legal expression of the right of authorship. Author owns a collection of personal non-property (moral) rights, which can not be alienated by its owner as a result of their very nature. Also if the economic relationship is determined by assigning "Who is allowed to use this work for commercial or industrial way? "That in the relationship of the spiritual assignment contains the answer to the

question" Who is the creator of this work? ". Property and personal rights are intertwined, that is, form an indissoluble unity. This relationship is evident in the fact that as a result of the use of intellectual property rights appear material objects, that is, property and ownership of it. ((P) Upcounsel, IPR 2016) In 1967, the Stockholm Convention has been signed, founded the World Intellectual Property Organization (WIPO), in accordance with which intellectual property rights are:

- Literary, artistic and scientific works;
- Performances of performing artists, sound recordings, radio and television programs;
- Inventions in all fields of human activity;
- Scientific discoveries;
- Industrial designs;
- Trademarks, service marks, trade names and commercial designations;
- Protection against unfair competition;

The above components of - copyright and related rights, and industrial property does not exhaust the entire content of "intellectual property" of the concept. In addition to traditional objects that are protected by copyright and related rights, and industrial property rights, the legal protection to be a lot of results of intellectual activities, such as plant varieties, topography of integrated circuits, trade secrets (secrets, such as know-how) and like. ((Q)Kristie Lorette, 2016). They are referred to as non-traditional objects of intellectual property, as they are usually the results of human creativity. Any property needs protection. Smart is no exception. However, methods of protection of the rights of intellectual property specific. If material property object is enough to place a "lock" or to put to him the guard, then the protection of intellectual property, such means are not suitable. The main method of protection in this case is the issue of the author or other subject of intellectual property rights of protective documents: a patent or certificate. The essence of the protection of intellectual property rights is that the author (creator) of intellectual property or other person recognized by law, receives from the state exclusive rights to intellectual property created for a certain period of time. These rights are regulated by special protection document. The author, who was guarding the document, such as a patent, feels confident because his rights are protected by law. Now he may disclose the invention for a wide range of people for "the use of this facility lawfully." If the author did not have a protective document, it will likely not be disclosed, the present invention, no one could use it and the subject matter would have remained unknown. In addition, the consolidation of enjoying the protection document assigning personal (non-property) and property rights promotes the use of Intellectual Property. It seems the only way to benefit the author as a result of the use of Intellectual Property on their own to gain an advantage over competitors or by allowing third parties to use the intellectual property of the royalties.((R) WIPO, 2004)

3.4.1. Objects of the International Legal protection of IP: the main features and characteristics

In the article 2 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) rights, "The nature and scope of obligations," notes that "for the purposes of this Agreement, the term" intellectual property "means all intellectual property rights, which fall under Sections 1-7 of Part II". Thus, to the objects of intellectual property in the TRIPS Agreement include:

- Copyright and related rights;
- Trademarks:
- Geographical values;
- Industrial designs;
- Patents;
- Layout designs (topographies) of integrated circuits;
- Undisclosed information.

Consider the characteristics and features of the use of intellectual property rights on the selected objects. ((S) WIPO, 2014)

Immediately it should be noted that TRIPS does not define any copyright or related rights. It is generally accepted that copyright is a legal term that refers to the rights granted to authors of literary and artistic works. Among the works covered by copyright include novels, poems, plays, reference works, newspapers and computer programs; Database; movies, musical and choreographic works; such works of art as paintings, drawings, photographs and sculpture; works of architecture, painting and advertising, maps and drawings. The Agreement specified that WTO members must adhere to the Articles 1-21 of the Berne Convention (1971) and its Annexes on the implementation of standards for the protection of copyright and related rights. Extremely important

is that copyright protection extends to expressions and not to the idea, procedure, practice or mathematical concepts as such. Copyright and related rights is essential to human creativity, by giving creators incentives in the form of public recognition and fair economic rewards. Protection of Intellectual Property rights system provides authors guarantee dissemination of their works without the risk of unauthorized production of copies or piracy, which in turn helps increase access of the world population to cultural values, knowledge, and guarantees them the highest quality of copyright. Over the past decade, the use of the limits of copyright significantly expanded as a consequence of the global information of society and led to the introduction of new methods of dissemination of a variety of works by means of global communication, such as satellite communications and CDs. ((T) Techinsights, 2016)

Also, the appearance of possible distribution of products via the Internet has created a new problem in the field of copyright. Today, WTO members agreed that the computer program in the output or objective code protected like literary works under the Berne Convention (1971). In addition, this also applies to the compilation of data or other information in electronic or other form. However, this protection does not extend to the actual data or information, and does not apply to any copyright that already exists on the data or information. To ensure the flexibility of the national trade policy of the country is allowed to apply certain limitations, exclusions and warnings concerning the rights of performers, phonogram producers and broadcasters under the Rome Convention. Limitations and exceptions may also apply with respect to the exclusive rights, however, if it will not interfere with the normal exploitation of the work and not cause excessive harm to the legitimate interests of the right holder. ((U) WIPO, 2004)

The appearance of the operations on purchase and sale of patents and licenses led to the creation of patent law, the right to exclusive use. The main principles of the functioning of the patent system is:

- Right to the invention, it is possible ownership or disposition of the invention during the term of the patent;
- Patent protection means that the inventor or the patent holder has the right to prohibit anyone else to use the invention and may also bring to justice perpetrators of their patent rights;

- Inventions made by inventors who are working at the company for hire, called "official" and inventions belong to the company, hence the difference between the concepts of "inventor" and "patentee";
- Novelty (invention, technical solution is recognized only when it is known throughout the country in the world), inventive step (invention must exceed the level of normal engineering solutions), the possibility of practical application (commercial value);
- The territorial limitations of patent rights the patent only in the country that produces it; anyone abroad can use the invention by making the opening for the second time (in parallel), and to prevent this you need to patent the invention in the country, which could potentially be repeated invention or are interested in using it. However, recently concluded a series of international agreements that make it possible to obtain patents that operate in several countries at once, and in the EU created the European patent system of the country, which includes submission of the application for a patent in one country, and the patents package, which operate in all countries EU members.((V) Callick, 2016)

Thus, the patent is a document issued by the inventor or the organization and certifies the monopoly right to use his invention owner. The TRIPS Agreement states that the invention may be registered (with the patent), if it meets the following requirements: is new, involves an inventive step, it is industrially useful. Patent protection means that the invention can not be made, used, distributed or sold on a commercial scale without the consent of the patent holder. At the end of the term of the patent protection ends, and an invention enters the public domain, that is, the owner no longer has exclusive rights to the invention, which becomes available to commercial exploitation by others.

4. Analytical review and solutions

4.1. The Problems of China's development strategy and NIC

Improving the institutional framework for strategy China's national innovation system to assess the possible steps for improving the institutional the foundations of China's NIS is necessary to determine the baseline, served a reference point or a basis for the formation of the system structure. Comparing initial institutional conditions in Russia and China, Polterovich V. identifies the following for China: the original farm type the division of labor, a huge potential labor force, due to which we began the industrialization process, the availability of external sources financing (mainly "Huaqiao"), the minimum state costs, as well as significant resource limited. ((W) Chang Xinghua,2012)

In my opinion, here should also be added to the above mentioned conditions: a quick exit of foreign Transnational corporations on the Chinese market who brought the essential contribution to development internal market and the culture of consumption and imports of foreign technologies and their rapid adaptation in production or in the service sector. Elementary conditions in China is also characterized by high technological backwardness, cultural characteristics and the factor of human capital. The important institutional constraint was that in the 1970-1980 years regional administration in China played an important role in production management at total decentralization of inter-regional cooperation was undoubtedly more advanced, that is considered by many people and made possible the gradual the reform of China's economy. As mentioned earlier, the Chinese institutional change satisfy the general requirements required of each of the stages. Beijing and state institutions, which are directly developed reforms and implement them in real. In addition to borrowing the best practices, mainly leading Asian economies to build their own consistent set of reforms that allowed for the resource. Cultural and political constraints and communication institutions, provides for a system balances in the redistribution of income and costs in general. It is worth noting that at the initial stage of transition from socialist economy to market principles, China is a number of other post socialist countries faced a common circle challenge but rather a way of transformation. It is also worth noting that before this time the history

of the world economy did not know such a precedent transformations, so great was the risk of unforeseen at the time consequences for the country as part of the macroeconomic policy. The following institutional constraints should be allocated to the faced at the initial stage of post socialist countries. ((X) Cai Yuezhou, 2012)

Beginning of realization of the transformation of transition to market principles development: inflexible prices and exchange rates; planned production; unfit for the market standards of corporate governance; the absence of private ownership of capital and land; the lack of available financial instruments and market development capital; state control over foreign trade and others.

All of the above factors significantly limit the institutional not only the development of NIS, but also the entire national economy. As the overall economic reform and the establishment of the Newly Industrial Countries in particular, the important role of the process held "dual liberalization» (dual track liberalization). It is important to take into account the point that as you grow production capacity targets are increased sufficiently slow or even decline, so that over time, the share of the planned release becomes insignificant, and targets can be cancelled with no any negative consequences for systems. Dual liberalization it lets to the restructuring of the production tasks and capacities were formed by the interaction of the market system is, in general, China's economy. It escaped the production slowdown and rapid inflation. Noteworthy that the slow pace of institutional transformations do not have a negative impact way to the growth of industrial production and exports. The growth of industry and exports led to an increase in revenues of the state, who could now afford to spend more on R&D, basic and applied research, as well as to an increase in revenues enterprises and companies of all forms of ownership. Which have also increased income and could afford the increase in R&D spending.((Y) Global R&D forecast, 2016)

NIC is China's 5th stage of its development, which characterized by the dominance of business structures in the center of the system. This stage was preceded by another 4 during time periods that were implemented institutional and legislative measures in respect of NIC to maximize the efficiency of its functioning. It is worth noting, that all the basic institutional and legislative measures in the NIC were China adopted until 1998, which are formed in many ways China's development strategy of NIC until 2020 To understand the possible ways of further development of China and the NIS improving China's NIS institutional framework has been used one of universal models for analysis. SWOT-analysis gives unique structural description of the system

state, on the basis of which strategic management decisions can be developed (Table 1). In Table 11 highlights the following internal and external factors that have positive and negative impact on the NIC, which were distributed in 4 group. Associate received factors to highlight possible strategies and subsequent analysis. The key success factors and competitive assets (taking advantage of the system (strengths) - S for development market opportunities - O, ie, S-O) include:

- -the possibility of a smooth transition to a new economic model,
- -the emergence of new high-tech sectors of the economy,
- -modernization of the economy as a whole;
- -the development of domestic high-tech market;

Table 1. Primary SWOT - China Analysis:

	Positive tendencies	Negative tendencies	
Internal side Strength - Potential of the domestic high-tech market -State and innovation policy support at all levels -modernization economy and transition economy a new model - Substitution of imports of foreign technology (with high rates) own technologies, thanks increase R & D spending - Market model innovation from concept to commercialization and product display or services to the		Weaknesses - Insufficient support for private and small and big business overregulation market -The need to increase efficiency interaction between actors in the organizational Newly Industrial countries(NIC) China structure; - Regional differences in the development of NIC; - The continued outflow highly skilled professionals for abroad; - Lack of protection of intellectual	
External side Opportunities - NIC and internal security high-tech market from excessive the impact of foreign multinational corporations; - The growing interest in a faster pac investment in NIC so hand foreign multinational corporations ar companies; - The emergence of new technologie		property; Threats -gain protectionism in the field of R&D - Strengthening the pace of decline in global growth economy and a new wave of recession; - Reducing the inflow and outflow of FDI in high-tech sphere	

- Output of Chinese market and
small/big companies in the new
foreign markets;

- World economy transformation: enhancing the role of the most dynamic developing countries and countries in transition economy.
- Inflow of foreign FDI in sectors of the economy, in need of modernization;
- An increase in the outflow of Chinese FDI high-tech sectors abroad

- Competition from other NIC countries.

Source: Own representation

The crucial parts of China.

- 1. Rapid growth, offensive. It allows when changing the model to carry out the expansion of innovative activity and improve the quality of high-tech products and services within the country and abroad.
- 2. Diversification of the high-tech sphere. Internal and external factors forced the transformation of the organizational and NIC regional structures. It is necessary to highlight the need to open greater access to private investment in the Chinese high-tech area, where there is no risk of economic security.
- 3. Regional expansion of high-tech sectors in China and world market. It will reduce the regional differentiation of the economic problem China's development and enhance the competitiveness of its own for NIC subsequent access to international markets. To date, Beijing, Shanghai, Hong Kong (Hong Kong), Shenzhen, Guangzhou 5 city the largest agglomerations of China which are actively connected to the transnational urban system, and who have become "buffer" centers between the NIC countries and the world market.
- 4. Minimizing the growth of production and export costs high-tech products. Rising prices for raw materials and industrial output in China is forcing most companies in the country to optimize the work to minimize costs for profitability control.

- 5. Improving the organizational structure of the NIC. As the transition to a new model of organizational structure of the NIC in including major chain links must be optimized purpose to improve the efficiency of interaction.
- 6. Technological Leadership. Continuation of the policy of support for basic research and applied R&D. Improvement of innovation implementation model to reduce the time period of commercialization of an innovative product or services. Extendable up strategies to improve institutional NIC bases through the SWOT-analysis can not be taken as a panacea and It should of course be thoroughly reviewed and confirmed. But together, these strategic directions for improving the hypothesis allow grasp the overall trend of future changes in the present NIC strategy of China.((Z) Paweł Bożyk, 2006)

In addition to these problems and NIC threats, it is necessary to mention unresolved institutional problems of the whole of China's economy. The problem improve the efficiency of the largest state owned enterprises in China: initiated privatization is far from complete, and the provision of more autonomy of state-owned enterprises due to the possibility of issuing shares is not give the expected effect. On the other hand, there is an opinion that the government deliberately does not force privatization of large enterprises and companies, the fearing of losing control over the entire economy. Selection of areas for strategy stands in front of the Chinese government, but also other major countries and players in the global high-tech market, which still has an opportunity to improve their own and NIC the possibility of making an innovative leap, it is important to understand the most likely scenario in this area.

4.2. Different scenarios of the national innovation system China in the perspective up to 2020

The global financial crisis is still affecting the development not only of developed countries involved in the crisis itself, mainly the United States, but also in developing countries. At present the global economy faces a choice of development models, one of the main ways seems the transformation of the real sector with the accumulated financial potential into real investment. It is about committing Innovation breakthrough on the basis of accumulated scientific and technological world building, the need to move on the national economy innovative way within the framework of the 6th technological mode. China's Role in This process is growing faster pace.

However, if China's influence in the global innovation system is not indicating the impact and the interdependence of China and the world economy shows strong growth. The economic spurt, which made China the last 35 years, it demonstrates the success of export-oriented usage models economy, which led to China for the success of other Asian countries, at The growth of the Chinese economy has the highest annual the pace of growth in the world in the twentieth century (Figure 1). Only from 1978 to 2009, GDP per capita in China, the world's largest country by population, increased by 16 times from 226 USD up to \$ 3679 per capita. The basis of this model, as already mentioned, the main driver were FDI and exports, while the share of domestic demand throughout all stages of economic reforms decreased: in 2000-2009. It was variously estimated from 14% 254 33% 255 of GDP. (1. National Innovation of China, 2012)

Below we can see the average annual growth in per capita GDP growth over a 30-year period of economic growth among the Asian countries in the twentieth century. China, who has a greater number of GDP per capita compare to other Asian countries.

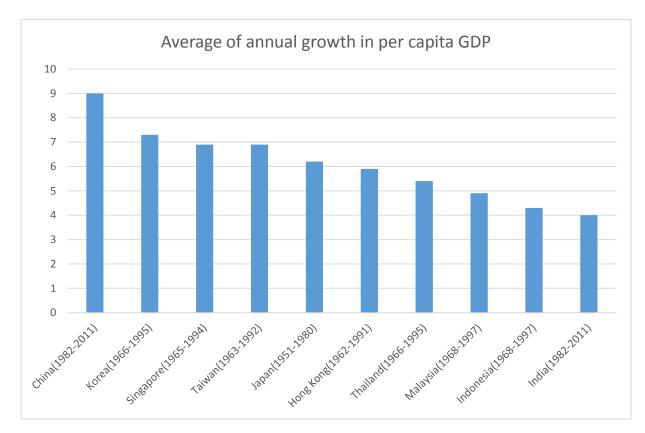


Figure 1. Average annual growth in per capita GDP.

(Source: 1. Maddison A. The World Economy: Historical Statistics, OECD, Paris. 2003)

Due to the lack of methodological approaches, economic models and NIC attempts to predict, to predict NIS scenarios China contact some general predictions of economic development were taken to China 2020 as a basis. The first forecast, drawn up according to the Institute International Economics Peterson, is based on three main variables: growth in investment, consumption and net exports.

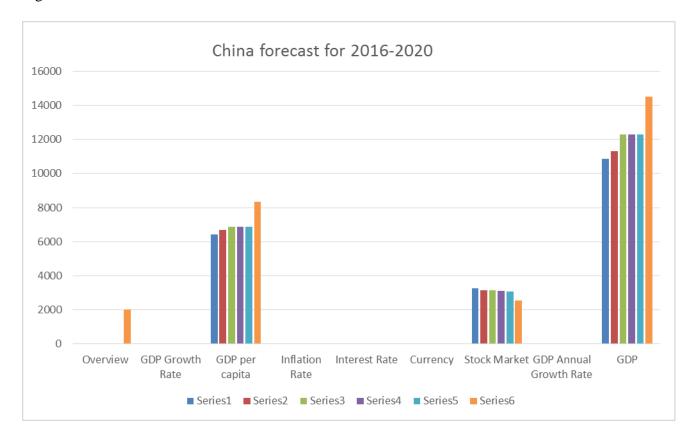


Figure 2. Forecast for China in 2016-2020.

(Source: 2. Nicholas R. Lardy, The Outlook for China's Economy. November 2012. P.16)

These three scenarios can be divided into favorable unfavorable and moderate. In case of unfavorable scenario, the growth of investment and consumption growth is slowing at an average GDP growth at 5%. With a favorable scenario of China's economy, there is a gradual decline in investment growth, while at the same times table growth of consumption and its share in GDP. Moderate same scenario is based a slowdown of investment and slower growth of consumption than in favorable scenario.

Asian division Morgan Stanley in its report forecast that after 2020, China will return to the economic growth rate by an average of 8% a year, and one of the main drivers of this growth will be domestic demand. volume domestic consumer market in China in 2020 will be approximately 60-70% of the current level of consumption in the US and 12% worldwide. The main factors 3rd, confirming the need to change course and start the transformation include:

- 1. Reduction of labor force growth, according to demographic trends;
- 2. Low levels of savings and accumulated capital;
- 3. Urbanization and technological development;

This forecast is also based on a comparative analysis of economic Development of Japan, Korea and China.

After 2020 NIC China should become a pillar of a new economic model that is able to minimize most of the current socio- China's economic problems, which currently can not yet be resolved within the existing economic paradigm. Although the new model aims to expand in the country of consumption, which will increase the involvement the economically active population in the economic growth, but it is unlikely to solve the employment problem in China. However, the appearance of new social problem - excess labor, which is released on as industrial automation growth. In general, the course taken by Beijing is not in any force majeure scenarios heralded a new economic policy of the country in the medium term where variable is the only period of its implementation. As one of the new poles of global growth, China marks the new challenges for all countries without exception in the world. Developed countries now need to change and rebuild foreign policy. Developing countries with mutual interests, China has a chance to review the economic policy and foreign economic cooperation with the countries of the leaders of the world economy and the end of XX beginning of the XXI century.

4.3. Analysis of Correlation between: GDP and Violation of Property Rights

In this section, I provide analysis of Correlation between GDP and Violation of Property Rights. First of all, I looked for a data from World Bank organization and found the evidences for the last 10 years for GDP of China and I used the same activity to the finding IPR records.

China GDP per year 2006-2015 12000 10866.44 10351.11 10000 9490.6 8461.62 8000 7492.43 6039.66 6000 5059.42 4558.43 4000 3523.09 2729.78 2000 0 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015

Figure 3. China GDP per year from 2006 to 2015.

Source: Trading Economics, 2016

As we already know, what is the Property Rights, let me describe a GDP. Gross Domestic Product (GDP) is one of the important indicators, which uses to measure the health of the economy. Every country has own GDP results in its economy. It usually provides the total dollar value of the products and services produced through specific time period. GDP is uttered as collation to the

previous quarter or year. For example, if the quarter to quarter GDP is up 5%, that means the economy has grown by 5% over the last quarter.

Dimension GDP is entangled (so why better if economists do that), but at its most primary, the calculation can be done in two ways: one is by adding up what everyone earned in a year which is income approach, next by adding up what everyone spent which is expenditure method. Logically, both dimensions should arrive to the same total.

The income method, which is referred to as GDP, is calculated with adding up total indemnity to employees, gross profits for incorporated and non incorporated companies and taxes less any subsidies. The expenditure approach is the more common method. It is calculated by adding total consumption, investment, government spending and net exports.

As we see the economic production and growth, what GDP provides it has a large impact on nearly everyone within that economy. For example, when the economy is good, you will see low unemployment and wage increases as businesses demand labor to meet the growing economy. A significant change in GDP, whether up or down, usually has a significant effect on the stock market. So a bad economy usually means lower profits for companies, which in turn means lower stock rates. Investors really worry about negative GDP growth, which is one of the features economists use to determine whether an economy is in a recession. (*Source: Investopedia.com*)

Table 2. GDP data of China and USA from 2006 to 2015.

	Country				Country		
Country	C.	Year	GDP	Country2	c.3	Year4	GDP5
China	CHN	2006	2729.78	USA	US	2006	13855.9
China	CHN	2007	3523.09	USA	US	2007	14473.63
China	CHN	2008	4558.43	USA	US	2008	14718.73
China	CHN	2009	5059.42	USA	US	2009	14418.73
China	CHN	2010	6039.66	USA	US	2010	14964.4
China	CHN	2011	7492.43	USA	US	2011	15517.93
China	CHN	2012	8461.62	USA	US	2012	16155.25
China	CHN	2013	9490.6	USA	US	2013	16663.15
China	CHN	2014	10351.11	USA	US	2014	17348.08
China	CHN	2015	10866.44	USA	US	2015	17947

Source: Trading economics, 2016

After testing relative GDP compare with US GDP, I had results, below.

Table 3. Relative GDP results after China and USA comparison.

USD	Year	%
0.197012103	2006	20%
0.243414403	2007	7 24%
0.309702671	2008	31%
0.350892208	2009	35%
0.403601882	2010	40%
0.482824062	2011	L 48%
0.523769053	2012	52%
0.569556176	2013	57%
0.596671793	2014	1 60%
0.605473895	2015	61%

Source: Own calculations

As you can see the last 10 years 2006-2015 GDP of China are worked successfully and grew up quickly from 20% to up to 61%. This is the comparison between two countries with the strongest economy: China and USA.

Table 4. Data for Correlation between GDP and IPR

GDP	IPR	Years
2729.78	16,205	2006
3523.09	20,781	2007
4558.43	27,876	2008
5059.42	36,000	2009
6039.66	48,051	2010
7492.43	66,000	2011
8461.62	83,850	2012
9490.6	88,583	2013
10351.11	95,522	2014
10866.44	98,735	2015

Source: Trading Economics, 2016

As I calculated the correlation of coefficient between two variables as GDP one variable and the 2nd is Violation of Property Rights. We can see the results, between the Violation of Property Rights and Gross Domestic Products is 0.99. Which is Pearson's r= 0.99 it gives probably percentage 99%. I can tell here is a very strong positivity between IPR and GDP.

Table.5. Correlation results.

Column1	GDP	IPR
GDP	1	0.993291
IPR	0.993291	1

Source: Own Calculations.

Further, I calculated the regression of two variables, where I took the results of significance. I took alpha= 0.05 as a significance level, we often use it in our studies.

Table 6. Regression statistics. Summary output.

Regression Statistics	Column1
Multiple R	0.993290523
R Square	0.986626064
Adjusted R Square	0.984954322
Standard Error	355.3414054
Observations	10

ANOVA						
	Column1		Column2	Column3	Column4	Column5
	df		SS	MS	F	Signif. F
					590.17841	8.79492E
Regression		1	74520362.01	74520362	9	-09
				126267.51		
Residual		8	1010140.115	4		
Total		9	75530502.12			

Formula	Coefficients	Stand. Error	t Stat	P-value	Lower 95%	Upper 95%
			6.9053062	0.0001238	1110.26372	2223.59467
Intercept	1666.9292	241.3983003	9	6	1	9
	0.08924178				0.08077074	
IPR	2	0.003673471	24.293588	8.7949E-09	3	0.09771282

Source: Own calculations.

The results shows us that Multiple R is also the same Pearson's r = 0.99 positive correlation. If you look at Column 5 in Annova test, you can see how much is our p value p=8.7949. It is exact amount p-value and we already know our alpha is 0.05. In our case p>alpha p value is greater than alpha. As I am testing null hypothesis. Let's remind ourselves what is null hypothesis? Null hypothesis says that there is No difference between 2 variables. We can reject it if our p value is less than alpha or we can accept it if our p value is greater than alpha. It my calculations, it is clearly showed that the null hypothesis is accepted 8,7949>0.05. There is No relationship between GDP and violation of Property Rights. It is Not statistically significant. If I test the alternative hypothesis than it is opposite of null hypothesis. The alternative hypothesis says there is difference between variables or more clear to say there is relationship between two variables.

4.4. Conclusion

Institute of Intellectual Property, which arose recently in the domestic legal system, in the world has been used for over two hundred years. During this time it has shown to be viable, and today there are few who have any doubts about the legitimacy of its existence as such. Despite the use of the word "property" in the name, this institution does not fit into the classical triad "setting - use - disposal," although intellectual property - the so-called intellectual product - and acts in public circulation as a special kind of commodity. Historically, the essential feature and the main problem in every sense of the word became its territorial nature of intellectual property rights. This creative activity can not be limited territorial scope, so that there was such a special sphere of international cooperation of the states, the international cultural cooperation, and the principle of freedom of creativity came in the last principles. Precondition for effective international cultural co-operation is seen real protection of the rights of authors of scientific, literary and artistic works. The decisive role of international protection and the protection of intellectual property rights owned by multilateral international agreements - conventions, an overview of which has been made above. The Berne Convention as compared to the World characterized by a large volume of subjective rights and substantive at all; World Convention is a compromise and is considered by many researchers to be more "flexible". Both documents contain conflict, administrative and in part substantive rules, but the question of immediate international protection of copyright vested in the national legislation of member countries. The main problem of the international protection of intellectual property, which, in our opinion, has not yet found a proper resolution in the internal domestic legislation - is the lack of effective and stringent public legal mechanisms to prevent and combat crimes in the sphere of intellectual property. In this paper we attempt to develop some of the most common recommendations, taking into account the successful experience of some foreign countries, but the problem requires a separate study.

In addition, I would say about testing of correlation is helped to see exist the difference between GDP and IPR protection. In my case, they are both independent sphere, which is do not have relationship to exist independently. It helps to study and compare the Chinese market with the other countries home market. The fast growth of market stock, I think it is the greatest contribution to the World economy by China.

Main factors of Intellectual Property Rights problems have been represented in my thesis: - ownership of intellectual property; -rights to use intellectual property; -procedural issues; -special considerations involving copyright. By different nature and culture of institutions and industry, the script and corresponding contract language expresses that university and specific companies measurements on the task group will represent mediators with available options for dealing with these problems and with a structure for the general review of intellectual property rights within research contracts.

Corresponding to the level of modern achievements of social and technological progress and missing in them to this day determine the author or other subjects of copyright. Which is available Conventional security and the World Convention, moreover provisions on moral rights of authors. With the increasing integration processes most pronounced in Europe, naturally expect the unification of the legal protection of copyright and related rights. Consequently, increase the content of the substantive rules in these conventions, acceding to new members or even the appearance of the new multilateral international agreements on the protection of copyright and related rights, which actually would be World Wide.

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