



PATENTS FOR INVENTION AND
FOREIGN DIRECT INVESTMENT:
TRENDS AND CHALLENGES OF
INTELLECTUAL AND
INDUSTRIAL PROPERTY IN
ARGENTINA
BY PABLO A. IANNELLO



ORGANIZATIONS

COLABORA



Patents for Invention and Foreign Direct Investment: Trends and challenges of intellectual and industrial property in Argentina.¹

By Pablo A. Iannello²

I. Introduction

One of the characteristics that have presented the last decades has been the growing interaction between investment flows, trade and increase in the levels of intellectual property protection. A possible explanation for this phenomenon could be the articulation between free trade agreements and intellectual property treaties. On the other hand, there is an important literature in the economic area, starting from Shumpetter that argues that there is some kind of correlation between the patterns of innovation and the patterns of economic growth.³

One of the questions that still reveals the studies of the international economy, industrial organization and intellectual property is: What is the relationship between greater protection of intellectual property, flows of foreign investment, and the rate of innovation a country? I believe that there is no categorical answer that shows a unicausal correlation between these questions. Any study of this kind faces numerous angles. Some of these difficulties are faced by econometricians who have the difficult task of being able to parameterize the relations between intellectual property and foreign investment. But there is another large set of questions that are conceptual in nature. They involve discussions about: What kind of innovation is subject to Intellectual Property Rights (IPR)? How far should these rights be? Should they be segmented by industrial sector? What kind of IPR policy is necessary to attract foreign investment while promoting higher innovation rates? On the other hand, there are strategic behaviors of the firms in relation to whether the degree of IPR protection is greater than optimal, which requires a constant ex post review of them by the courts.

In this article, we will review some of these tendencies, which mark relations between foreign direct investment (foreign direct investments, from now on FDI), and intellectual property; specifying cases or opportunities for improvement

¹ A special thanks to the Fundación Libertad. In particular to Alejandro Bongiovanni and Garret Edwards, who invited me to make this collaboration and contributed valuable points of view in the elaboration of the article. Any error or omission is the sole responsibility of the author.

² Pablo Iannello is Director of the Department of Ec. And Cs. Social Sciences of ESEADE, Prof. of Advanced Topics of Intellectual Property UTDT, Valuation of Intangibles UdeSa, International Protection of Intellectual Property University of Dayton, Prof. of International Economic Law ESEADE, Professor of Theory of Law and Economic Analysis of UADE Law.

³ KINGSTON, William. *Innovation, Creativity and Law*. Springer Science & Business Media, 2012, pp. 87 y ss

and success stories. Basically, it is shown that strong limitations on patent law negatively affect both local and foreign investment.

The article is structured as follows: In the next section a brief review of the literature relating IPD and FDI is made. Then the cases of success and opportunity for improvement to be developed at work are briefly mentioned. Next, a concise description of the patent landscape in Argentina is made, explaining the determinants of the decline in the patenting rate and its possible relationship with the FDI rate, with special emphasis on some opportunities for improvement at both the micro and macro levels. In the last section, the case of success of the software industry is raised and how IPRs play a secondary role in them.

II. The literature on the correlation between foreign direct investment, patents and innovation

The conventional idea is that higher levels of direct foreign investment require higher levels of IPR protection. The statement is correct, but it seems simplified⁴. One of the pioneering articles in relating the activity of innovation with investment flows was that of Dunning, who established correlations between property, location and internalization of the benefits generating the so-called "OLI paradigm". This view considers necessary the existence of property rights for foreign firms to compete with local firms.⁵

From an empirical point of view, Ferratino's research found no significant statistical correlation between FDI flows and levels of IPR.⁶ On the other hand Mansfield has evidenced both theoretically and empirically the relationship between innovation and intellectual property rights. Mansfield's article is particularly interesting because it deals with the link between innovation and intellectual property, but with special emphasis on the fact that the impact of IPRs, in their positive correlation with innovation, is not independent of the protection provided by the legal system in its set.⁷

In line with Mansfield's conclusions, Oxley proposes an analysis related to the institutional culture of a country and its affection for the protection of property rights, trying to determine the administration costs that a foreign company faces when

⁴ BIRD, Robert; BIRD, Robert; JAIN, Subhash C. (ed.). *The Global challenge of intellectual property rights*. Edward Elgar Publishing, 2009 pp 155 y ss

⁵ DUNNING, John H.; LUNDAN, Sarianna M. *Multinational enterprises and the global economy*. Edward Elgar Publishing, 2008; DUNNING, John H. Multinational enterprises and the globalization of innovatory capacity. *Research policy*, 1994, vol. 23, no 1, p. 67-88.

⁶ FERRANTINO, Michael J. The effect of intellectual property rights on international trade and investment. *Weltwirtschaftliches Archiv*, 1993, vol. 129, no 2, p. 300-331.

⁷ LAI, Edwin L.-C. International intellectual property rights protection and the rate of product innovation. *Journal of Development economics*, 1998, vol. 55, no 1, p. 133-153; ACEMOGLU, Daron; AKCIGIT, Ufuk. Intellectual property rights policy, competition and innovation. *Journal of the European Economic Association*, 2012, vol. 10, no 1, p. 1-42.

deciding where to invest; taking into account that there are different cultures about respect for property rights.⁸

Regarding the types of industry and the actions of multinational companies, Nicholson distinguishes policies in FDI or licensing depending on whether the levels of IPR protection are high or low; Finding correlation for the first activity against low levels of protection and licensing in cases of high protection.⁹

There is empirical evidence that IPRs serve to enhance foreign direct investment if they also meet a basic requirement: The country requires must have the capacity to imitate the products that foreign firms produce locally. If local firms did not have the capacity to imitate IPR protection, it would not be necessary.¹⁰

On the other hand, it is necessary that the FDI recipient country protected via IPD possess a sufficiently attractive market that justifies the cost of the investment in local research and development and / or the transfer of technology. This statement is consistent with the conclusions provided by Maskus and Penubarti, indicating that faced with conflicting IPR scenarios firms face a *trade off* on a potential dilution of their property rights against the losses of attractive markets for their exports.¹¹

III. Two cases From success to the opportunity for improvement.

In the case of Argentina, there are some challenges in the protection of intellectual property rights in terms of patents.

On the one hand, the discussion on the scope of the patentable subject that constitutes an example of barrier for the advancement of the industry in particular: the limitation of the scope of patenting in what refers to agro-biotechnology and on the other hand what refers to the chemical-pharmaceutical industry. At this point it will be shown how the limitation of patentable subject matter has affected not only foreign investment, but has limited the returns produced by local innovation.

On the other hand, it will be mentioned as a success case, the emergence of an important activity in the field of software development, which is not patentable under Argentine legislation, but is protected via copyright. However, it will be seen

⁸ OXLEY, Joanne E. Institutional environment and the mechanisms of governance: the impact of intellectual property protection on the structure of inter-firm alliances. *Journal of Economic Behavior & Organization*, 1999, vol. 38, no 3, p. 283-309.

⁹ NICHOLSON, Michael W. The impact of industry characteristics and IPR policy on foreign direct investment. *Review of World Economics*, 2007, vol. 143, no 1, p. 27-54.

¹⁰ ITO, Banri; WAKASUGI, Ryuhei. What factors determine the mode of overseas R&D by multinationals? Empirical evidence. *Research Policy*, 2007, vol. 36, no 8, p. 1275-1287.

¹¹ MASKUS, Keith E.; PENUBARTI, Mohan. How trade-related are intellectual property rights?. *Journal of International economics*, 1995, vol. 39, no 3-4, p. 227-248.

that in this case, IPRs act in conjunction with other policies to generate property rights for inventors. The product life ratio and technological exclusion barriers can be assumed as substitutes for copyright in terms of exclusion, which has allowed a way to channel investments in software even if it is presumed that the protection of copyright is lower than the one granted by patent law.

The innovation activity does not necessarily coincide with the intellectual property protection indexes. This is mainly because not all the innovation process is captured in property rights of type DPI

Does this mean that the existence of strong intellectual property rights does not encourage innovation? I think that if it encourages it, only that innovation processes are complex phenomena that do not depend exclusively on IPRs, as mentioned in the case of software.

IV. Evolution in Argentina of the protection of IPRs with special reference to the case of patents.

In general, it can be said that it is necessary that property rights are well defined and will allow creating greater incentives for innovation and above all those more risky innovations. There is empirical literature that has corroborated that even with weak property rights, there is inventive activity.

However, those areas of innovation that require a higher degree of risk require a higher return, and therefore some type of "extraordinary return" is necessary to justify that a rational investment divert funds from less risky assets to riskier assets.

From the premise exposed it is inferred that clearer policies, with well-defined property rights, help to generate safer returns if it is invested in riskier projects. Consequently, they encourage investment in more far-reaching developments that can generate inventions with a greater degree of innovation. That is why the requirements of patentability, originality and inventive height; as well as the exclusions of patentable objects turn out to be elements of fundamental public policies to determine the strength of a patent system.¹²

While there are numerous arguments for the patent system, it could be said that there is a certain consensus that one of its objectives is to create sufficient incentives to ensure the inventive step.¹³ It has been explained that incentives to innovation result from: i) The costs of innovation and invention; ii) The risks; iii) The

¹² LANDERS, Amy L. Patentable Subject Matter as a Policy Driver. *Hous. L. Rev.*, 2015, vol. 53, p. 505. In particular to assess the impact of judicial decisions on the interpretation.

¹³ For the various economic justifications of the patent system see: Landes Willam - Posner Richard, "The economic structure of intellectual property law", Harvard University Press, 2003. A good justification can also be found in Cooter and Ulen "Law and Economics", FCE, 2001, Chapter V. 1) b); finally a more modern vision is found in Shapiro, Carl and Lemley, Mark, "Probabilistics Patents", John Olin Center of Law and Economics Stanford Law School, Working Paper No. 288, 2004.

prizes for obtaining the invention and; iv) The imitation rate.¹⁴ For its part, the courts have upheld this criterion when it comes to justifying the constitutional validity of patents and copyrights.¹⁵ To this end, the countries have developed systems that seek to guarantee the exclusive rights of the patent holder for a certain period of time, which for the theory that today could be considered classical, generates a certain type of legal monopoly on the invention, given the characteristics of the public good that the inventive activity possesses, insofar as there are no substitutes for the good.

At a global level, the regime for the protection of industrial property rights was included in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), concluded in the framework of GATT in the Round Uruguay. This agreement contains a series of provisions that establish certain standards of protection that must be adopted by the signatory states of said treaty, among which the right of exclusivity of the inventor, contained in article 27 of said treaty, should be mentioned. Argentina is part of these treaties and during the 90s and part of the first decade of this century maintained standards appropriate to international averages.

Now, I think that the evaluation of the relationship between FDI and patents is complex and requires a two-level analysis on the one hand a description of problems that are specific to the IPR and innovation policy; and on the other, an analysis of some elements of protection of property rights in general, which are a condition for the development of innovative activities that will eventually require IPRs to protect said innovation. This involves segmenting the analyzes in these two proposed levels.

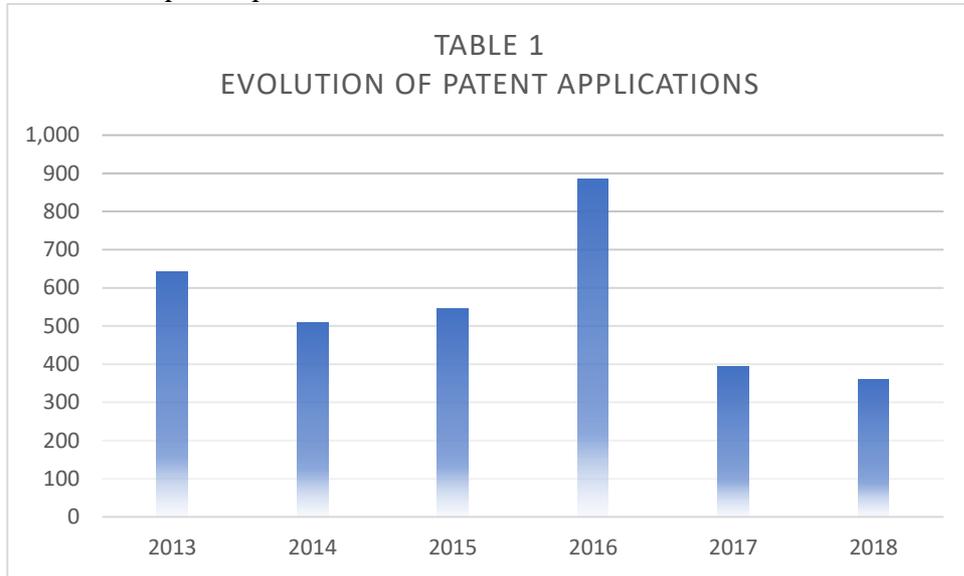
Thus, micro politics will be understood as the public policies adopted by a State in its IPR innovation and protection systems (registration + effective judicial protection). On the other hand, macro policy will be understood as the institutional arrangements that impact on other variables of the validity of property rights. Next, a non-exhaustive analysis of some micro-policy problems in terms of IPR will be proposed, specifically in the case of Patents.

As a final point of this section, it is worth mentioning that the empirical evidence shows coherent results where, with a certain level of delay, there is some correlation between the FDI levels and the filed patent applications. Low levels of FDI as in 2016 are followed by a drop in patent applications.

¹⁴ Scherer, F. M., "The Economic Effects of compulsory patent licensing 14 (1977), en Chien Collen, " Cheap drugs at what price to innovation: Does compulsory licensing of pharmaceutical hurts innovation" , Berkley Technology Law Journal Vol. 18. 853.

¹⁵ The Court of the United States in the ruling Mazer v. Stein argued that: "The philosophy behind the clause that empowers Congress to guarantee the right of patents and copyrights is the conviction in which rewarding individual effort seeking through personal gain is the best way to achieve advancement of the public well-being through the creativity of authors and inventors "347 US. 201 (1954).

This is consistent with the second requirement outlined in the previous paragraphs. The deterioration of the domestic market to reach economies of scope and scale, can result in determinants of the export of technology as an exogenous variable to the levels of patent protection.



Source: Own elaboration on data provided by the INPI



Own elaboration on data provided by the Santander Foundation.

The International Index of Protection of Property Rights shows that there are no significant changes in the trend of the level of protection of property rights in Argentina. Specifically, Intellectual Property marks a protection medium slightly

lower than other countries in Latin America, ranking slightly above Uruguay but far from Colombia, Brazil Chile; At the same time, it shares a level with Peru and Ecuador.¹⁶

The aforementioned index contemplates the level of protection of intellectual property rights, the protection of patents and the level of piracy in the country. In relation to the patent protection system, the source used is the Park patent index that it takes as edition variables.¹⁷

Certainly at the level of patent protection the country has a much higher rating than in other variables. However, investment decisions on patent-intensive assets appear not only to depend on the level of IPR protection.



Levels of protection of property rights in Argentina developed based on the IPRI information. Table 3

However, even when said statement seems correct and as it results from tables 1 and 2; Some volatility can be observed in FDI levels and in patent applications. This allows to make some conjectures.

First, it can be said that IPRs are a necessary but not sufficient condition to increase the flow of FDI.

¹⁶ The international property rights index is available at <https://www.internationalpropertyrightsindex.org/countries> (last visited on 11/27/2018)

¹⁷ PARK, Walter G. International patent protection: 1960–2005. *Research policy*, 2008, vol. 37, no 4, p. 761-766.

From the point of view of the macro policy, patents require longer-term investments, which is why, in the face of an institutional moment of market opening and protection of property rights, it is expected to react with some inertia to assess the stability of the same for the sunk costs that such industries require. This also seeks to foresee the possible return against the collapse of investment, which in part depends on the general stability of property rights.

On the other hand, from the micro politics; the administrative, tariff and admissibility costs of patents are barriers that discourage long-term investments.

IV.- a) The costs of protection of intellectual property. Analysis of micro politics.

1. one. Limitations to patentable material - the case of agro-biotechnology and pharmaceutical restrictions.

The scope of the protection of patenting is considered a public policy and that therefore must be akin to the guidelines of the basic system of innovation and development that a country wishes.¹⁸

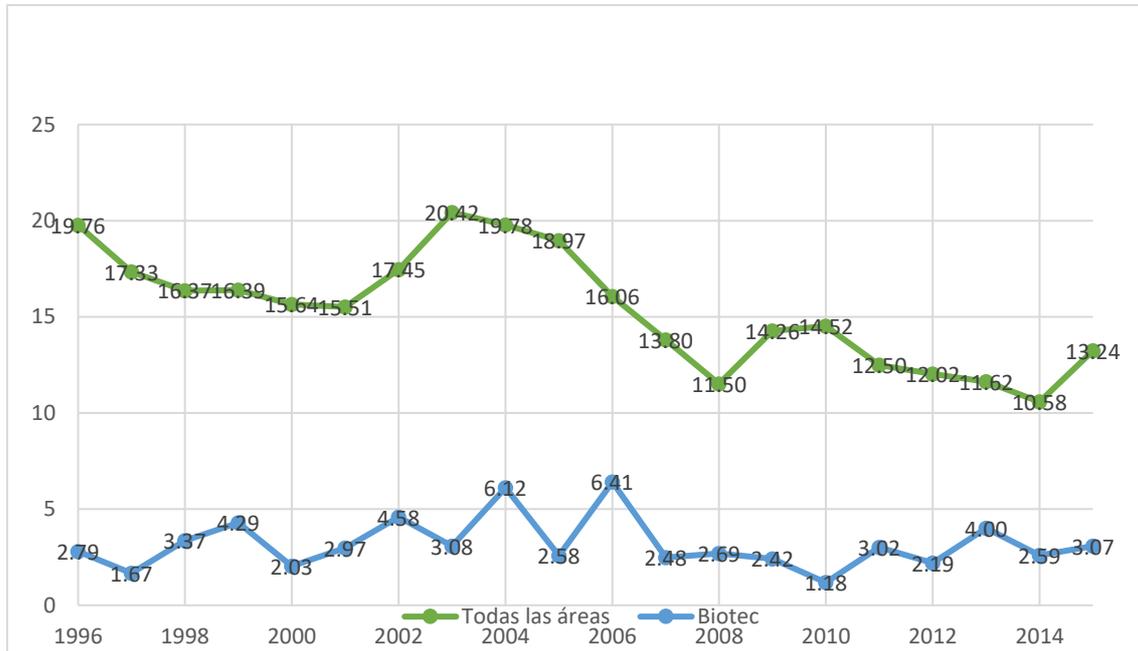
Argentina contained a regulation framework in accordance with international standards in accordance with the provisions of the TRIPs. However, since 2010 there were actions that served to limit the patentable subject. This has impacted not only the possibilities of patenting of nationals but also international ones, as Argentina is intensive in the natural resource factor "agroindustry" and therefore it seems that it should have a strong level of research and development in the area, and as a correlate high level of patenting.

Specifically, the resolution of INPI 283/2015 decided to limit the patentable subject in what refers to biotechnological innovations.¹⁹

¹⁸ LANDERS, Amy L, op cit. Pp. 512 y ss

¹⁹ Paragraph 2.1.7.2 of Chapter IV Part C of the Patenting Guidelines by the following: "2.1.7.2 Plants, animals and essentially biological procedures for their reproduction or production (procurement) shall not be considered inventions. In this way they are excluded from protection because they are not inventions, under article 6 g) of LP and RLP (see 3.1):

% of Patents on Biotechnology on the total of patents requested by Argentines.



Source: "Global trends in technology protection" Alicia G. Álvarez, XXXI Annual Industrial Property Conference.

The data in the previous table shows that there is a small percentage of patents in biotechnology even though the country has adequate production factors to generate a greater rate of innovation in biotechnology.

Although a linear correlation can not be established between the limited scope of the object of patenting, it is understandable that it is one of the possible causes of the lack of greater incentive in the sector.

The Case of "Pampita"

- Pampita was the first cloned cow in Argentina
- Innovation is not protected by a limitation of patentable material.
- The innovation consisted of cloning fetal fibroblast extracted from skin. The veal
- This placed Argentina among the 9 countries with this technological capacity.

As previously discussed, the scope of patent protection is a matter of fundamental public policy and has a strong impact on the determinants of levels of patenting.

On the other hand, the conditions to patentability in pharmaceutical matters developed by the joint resolution issued in 2012, limited the possibilities of patenting in that industry, greatly affecting incremental innovations, which turn out to be quite recurrent in the sector the characteristics of it.²⁰

In relation to the pharmaceutical industry, in 2012 the patentability guidelines for patent applications on pharmaceutical chemical inventions were approved, approved by the joint resolution of the Ministry of Industry n ° 118/2012, Ministry of Health n ° 546/2012 and National Institute of Industrial Property No. 107/2012. The guidelines were approved in order to avoid the proliferation of patent applications on matters that are not properly an invention or were marginal developments, and in order to meet public health objectives and access to medicines.²¹

These resolutions affected not only the private activity but also affected many public research programs. The direct impact of these resolutions was to raise certain standards of patenting which prevented the registration of certain patents derived from previous patents.²²

2. Administrative costs in the patent process.

In a very acute investigation Professors Poli and Bensadon have detected with a clear clarity, the relationship between administrative costs. Understanding them the monetary costs of entry of protection proceedings, with the continuous and systematic withdrawal that has been noted in the Argentine system in relation to patent applications.

The aforementioned authors point out that later, the sanction of Law 24,481 by modifying the patent system for the obligations assumed in TRIPs introduced tariffs for steps or benefits until then free of charge, as an additional for a greater number of claims, or charges for the request for background examination,

²⁰ DUNLAP-HINKLER, Denise; KOTABE, Masaaki; MUDAMBI, Ram. A story of breakthrough versus incremental innovation: Corporate entrepreneurship in the global pharmaceutical industry. *Strategic Entrepreneurship Journal*, 2010, vol. 4, no 2, p. 106-127.

²¹ BASSO, Santiago, GENOVESI, Luis Mariano "Documento de diagnóstico : propiedad intelectual y biotecnología" 1a ed. - Buenos Aires : Ministerio de Ciencia, Tecnología e Innovación Productiva, 2016. Libro digital, PDF - (Biotecnología argentina al año 2030 ; 3)

²² CANTAFIO, Fabio "Propiedad intelectual, Derecho Farmacéutico y regulatorio", Revista de Derecho Comercial del Consumidor y de la Empresa, año IV, N° 4 – Agosto de 2013, Ed. La Ley

advance publication of the application, extensions of terms, concession fee and annuities.²³

Another of the arguments put forward is the fragmentation of the patent examination where the substantive examination gives a wide margin of discretion between the examiner and the applicant. In this line the authors refer that: "*In all the patent offices that, like Argentina, practice a substantive examination, the procedure is actually a dialogue between the applicant and the examiner, where both seek to find a common ground that allows to that one to obtain the protection that it wishes and to this one to confer the shelter that the law allows.*"²⁴

The assertion seems to be based on the statistics provided by the authors themselves and consistent with the presence of *anticommon* tragedy in the cases of state regulations, superimposed with ample discretionary margin for the regulator, although it is true that this margin is a common feature in many countries.²⁵



3. The case of patent litigation as additional costs in the micro policy structure.

²³ BENSADON Martín – POLI, Iván "Crisis en el sistema de Patentes Argentino" RDCO N 46, 2013 – A, 683

²⁴ BENSADON – POLI, ibd.

²⁵ The tragedy of the commons establishes that in the face of the over definition of property rights there is a sub-exploitation of the resource where there is excessive regulation of property rights. Cf. HELLER, Michael A. The tragedy of the anticommons: property in the transition from Marx to markets. Harvard law review, 1998, p. 621-688.

It was already mentioned that one of the main objectives of a patent system is to generate incentives to skew investment flows from less risky projects to riskier projects. However, once the return is insured, there may be reasons to obtain gains resulting from the restriction of competition. The patenting strategy may have to do then, with the maximization of monopoly profits. One possible strategy is the litigation of the new applicant's patent. The nullity of the patent, added to some type of preliminary precautionary measure, can be effective strategies to prevent the entry of competitors.²⁶

It can be said then that: a) the cost of patenting, together with the costs of litigation, must be less than the profits expected by the patent so that the decision to patent is rational; b) the decision to innovate on the existing patent will be made to the extent that: the profits for the second patent are greater than the cost of innovation, the cost of patenting and the eventual cost of litigation for the person who patents first.

Thus, there will be patents only to the extent that market size justifies the cost of patenting; and if there are patents, their number will be low because the cost of innovating will be even greater considering the costs of litigation in patents, assuming that the market size remains constant. This is related to what has been shown empirically regarding the role of litigation costs in terms of patents and their relation to the scope of protection of the same.²⁷

If in Argentina the expectation of a market opening is greater, the patenting activity should be higher as well. However, as what emerges from the previous table, in the last three years the level of patenting is reactive to investment.

IV.- b) On the institutional inertia and the level of patenting. The conditions of the macro policy.

One possible explanation for the constant reduction in levels of patenting is the lack of institutional arrangements that show adequate levels of intellectual property protection over time in Argentina. The volatility of economic policies of the last 40 years has shown the impossibility of maintaining basic arrangements of "non-ownership of property rights" in a consistent and consistent manner.

Consequently, it is expected that the market reacts with high volatility in some sectors where profitability is high, fast and with low exit barriers; At the same

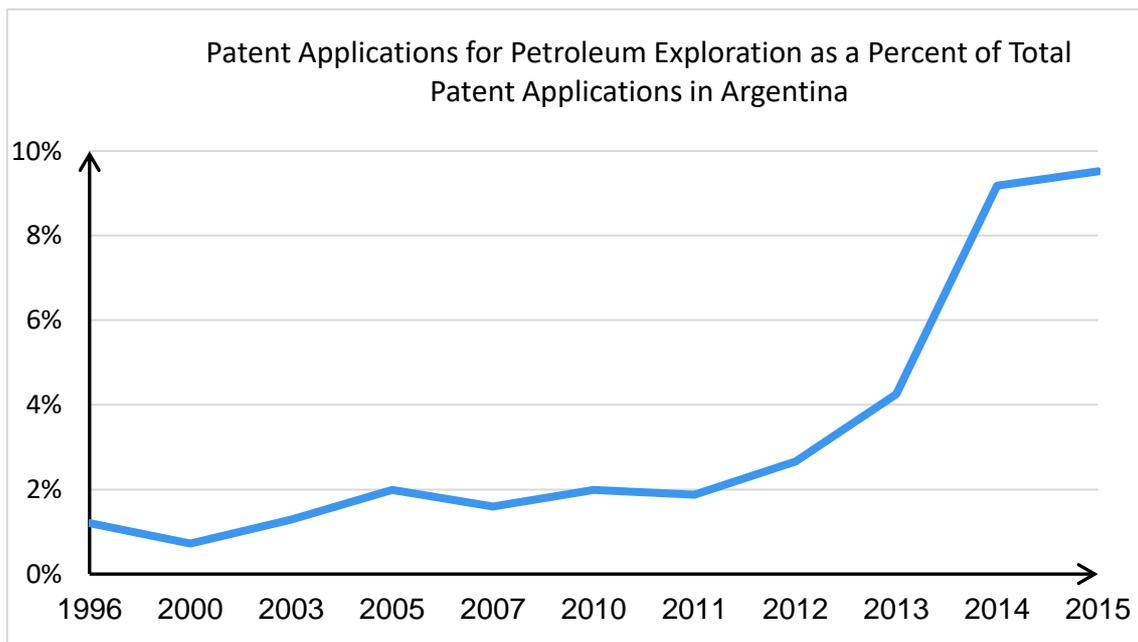
²⁶ LANJOUW, Jean O.; LERNER, Josh. The enforcement of intellectual property rights: a survey of the empirical literature; en *The Economics and Econometrics of Innovation*. Springer, Boston, MA, 2000. p. 201-224. LERNER, Joshua. The importance of patent scope: an empirical analysis. *The RAND Journal of Economics*, 1994, p. 319-333. MAZZOLENI, Roberto; NELSON, Richard R. The benefits and costs of strong patent protection: a contribution to the current debate. *Research policy*, 1998, vol. 27, no 3, p. 273-284.

²⁷ LLOBET, Gerard. Patent litigation when innovation is cumulative. *International Journal of Industrial Organization*, 2003, vol. 21, no 8, p. 1135-1157.

time, it shows signs of skepticism in sectors where there is a high sunk cost. This also explains why there is less access of patentable innovation-intensive industries to the venture capital market. This, insofar as the rate of return of capital is longer in these industries than in others that require another type of protection of property rights

Considering the average timeframe for patent proceedings in the region, the size of the market, and institutional myopia in relation to property rights is consistent with the fact that there are no high levels of direct foreign investment associated with patenting, as long as there is no You can ensure returns for the investment to shorter terms in which there have been institutional crises in the country.

In other words, the decision to invest in industries with a high degree of innovation in the country has weaknesses both in the micro-policy of IPR and in the macro policy of IPR, which leads to the loss of places in relation to other countries. consistent with several previously mentioned factors such as administrative costs, patentable subject matter and litigation.



Source: "Global trends in technology protection" Alicia G. Álvarez, XXXI Annual Industrial Property Conference.

V. The software industry as a success case in innovation.

Contrary to what happens in the case of industries that are patent-intensive, the statistics published by the Argentine Chamber of Software show a significant growth of the local industry, even at times when several general economic variables are contracted

One possible explanation -not the only one- is that there is a clear and defined market financing system, constituted by closed investment rounds of risk capital and at the same time a development of the legal framework that facilitates access to the development of start-up companies in general, but that include technology-intensive ones.²⁸

This in turn is consistent with what some studies have concluded by saying that while in time of economic contraction there are more chances that *start-up* companies fail, in the event that this does not happen they have more chances of generating high returns. This leads investors to risk more even in adverse scenarios.²⁹

The evidence shows that, however, the growth is not consistent with the intellectual property policies of Argentine companies. In general, companies have shown that they prefer to adopt "market" protection mechanisms as a more effective measure than intellectual property rights.

VI. Preliminary conclusions and points for future research.

The relationship between patents and FDI is complex and must be carried out at different levels of analysis, some that include IPR variables and others that include institutional arrangements on the protection of property rights in general.

While it is true that strong IPR protection is a factor that contributes to the increase of FDI, this is a necessary but not sufficient condition.

This article has proposed two levels of analysis to explain the relationship between FDI and patents. On the one hand, the micro variables where improvement cases have been pointed out, such as the scope of patentable subject matter, the costs of patenting and litigation, and on the other hand; macro conditions that will need to be improved independently of IPRs to ensure the return of direct foreign investment.

This line of argument is consistent with the literature referred to in section II of this article that links intellectual property to the general structure of a country's intellectual property rights. On the other hand it has been shown that the existence of markets invites to increase the levels of patents. even though the strength of the local patent system may be controversial.

Finally, the software industry in Argentina has been singled out as a case of success in innovation, where it was evidenced that part of the success is due to the

²⁸ In particular, the law of entrepreneurial capital that incorporated into Argentina the law the collective financing institute and that was regulated by the CNV. Which has initiated conversations with the actors of the sector facilitating the presentations for these platforms. At the date of presentation of this article there is a presentation made and another soon to be made of this type of collective financing platforms.

²⁹ The market mechanisms consist of product strategies, eg after-sales service or contractual arrangements, non-compete clauses with former employees, which do not refer directly to the trademark and copyright laws that have been identified as basic IPRs in the industry. of the software

existence of high returns even in the face of adverse institutional environments, which leads to the existence of investment flows specific to that industry.

Additionally, in the expansion of software, IPRs are not seen as the exclusion mechanism preferred by owners, who find market tools to ensure returns. However, brands and copyrights play a secondary role when deciding to market innovation abroad.

There are several points that have not been explored in this article and that constitute topics for future research. Among them can be mentioned the relationship between FDI and university innovation in the Argentine system as a policy of innovation and development; the legal aspects of the marketing of intangibles; the reduction of transaction costs in terms of patents by including Argentina in the PCT as a point for attracting foreign direct investment; the relationship between financial operations and intangible assets; among several other possible topics.