

## Patent Insurance: A Roadmap

Rahul Sinha†

L.I.C. of India, Mahrajganj branch, Gorakhpur Division, Uttar Pradesh 273303, India

*Received 11 June 2014, revised 28 November 2014*

A patent does not in any way prevent infringement. It merely grants a right to sue an infringer. Individuals and small and medium enterprises are often reluctant to pursue infringement cases in a court of law owing to the time and money involved in fighting a litigation battle. A patent insurance policy protects the insured in a legal battle against an infringing company or an infringement lawsuit filed by a rival company depending upon the type of policy. World-wide patent insurance is a lesser known phenomenon due to the reluctance of insurance companies to offer such types of coverage as the risk involved is high. The present paper underlines the necessity of patent insurance along with features which should be included in a patent insurance policy. The insurance companies would not be in a loss if only non-technical risk assessment is done at the commencement of policy while technical risk assessment is done only when a specific claim arises; and only then will the premiums be affordable for the patentee. Every country should make patent insurance policy mandatory for patentees, which with the advancement of patent insurance industry would move to a voluntary scheme. This scenario is essential to promote innovation culture in society.

**Keywords:** Patent insurance, mandatory scheme, voluntary scheme, non-technical risk assessment, technical risk assessment, insurance premium

A patent is an exclusive monopoly right granted for a limited period to an applicant in respect of an invention to exclude any other person from manufacturing, using or selling the patented product or from using the patented process without due permission while insurance is a contract which pledges payment of an amount on the happening of the event insured against. Inventions in all fields of technology, whether products or processes are patentable, provided they meet the three criteria of novelty, inventiveness and industrial applicability. Patent insurance is an insurance against infringement of patents and the costs associated with it. With the increase in technological and industrial development, patents have risen substantially. Globally, the number of patent applications increased from 66,000 in 1980 to 2.35 million in 2012.<sup>1,2</sup> The increase in the number of patents has also led to a corresponding increase in the number of associated disputes. The number of patent lawsuits in US increased by about 50% in a decade since 1984 and patent actions filed reached a record highest of 4015 cases in 2011.<sup>3</sup> This indicates the need to insure patents, especially by individuals and smaller firms, who do not have sufficient resources to fight the costly litigation battles and are

in a quandary whether or not to continue with a trial to protect their patents in a court of law.

### Types of Patent Insurance

Patent insurance is of two types:

(a) Patent liability insurance which is a third party coverage enables the insured to fight against an infringement law suit filed by a rival company. It is a kind of defensive insurance.

(b) Patent pursuance insurance also called 'patent infringement defense insurance' is a first party coverage that enables the insured fight against a patent infringing company. It is also called 'patent enforcement insurance' and is a kind of offensive instrument to protect patents.

A patent infringement insurance generally covers legal attorney fees; damages covered, including judgments and settlements, previous lost royalties and previous profits, interest and costs and attorney fees assessed by the court.

### Why Patent Insurance?

Patent insurance has long been considered potentially important as a means of promoting innovative culture<sup>4</sup> in small and medium-sized enterprises which do not have extensive legal resources and are unable to develop or litigate patents on new technologies owing to the expenses and complexities in the legal system. A patent is not

†Email: sinhaarahul@yahoo.co.in

fool-proof protection against entry, it merely grants a right to sue intruders. If the patent holder cannot monitor infringement, if he cannot identify the infringer, or if the enforcement is too costly, the patent is undermined. Since patents are granted for a limited period, the gains from infringement on one hand, and the profits from fighting against infringement on the other hand decrease with time. If infringement occurs, the patent holder may attempt to establish the identity of the infringer and to conduct investigations. If he succeeds, the patent holder can choose between three main options: One, he can “trade” intellectual property which can take various forms, including cross-licensing agreements and patent exchanges, sometimes balancing cash payments<sup>5</sup>; second he can file suits and third abandon any pursuit and let the infringer remain in the market. Each of these options result in costly outcomes. To let the infringer stay in the market reduces market power while going to court involves trial expenses. A suit may result in settlement, win for the plaintiff or win for the defendant. A patent insurance policy covers the legal expenses during the litigation process as well as damages incurred during the course of infringement. According to a survey by the American Intellectual Property Law Association, the cost to litigate a patent infringement lawsuit averages US\$ 2.8million (amount in controversy lies between US\$ 1million and US\$ 25million). Damages average close to US\$ 9million. With these escalating costs and exposures, insurance cost is not the issue; the issue is the company’s survival- its ability to stay in business. Thus, the need for patent insurance can be highlighted as follows:

(i) Legal battles are expensive and time consuming affairs and may divest a company of its valuable assets. A typical patent infringement case in the US costs US\$ 1 - 3 million in legal fees alone for each party while legal fees in pharmaceutical cases can go up to US\$ 30 million dollars or more.<sup>6</sup>

(ii) An insured patent discourages probable infringement, as the infringing firms fear the financial backing of the patent holder (provided by the insurance company) in fighting legal battles.

(iii) Bigger companies may simply involve Small and Medium Enterprises (SMEs) in litigation process as market strategy to drive the SMEs from the market, since the SMEs are not in a financial position to fight legal battles.

(iv) It promotes research and development. Lerner<sup>7</sup> provides evidence that small firms avoid R&D areas

where the threat of litigation from larger firms is high. Lanjouw and Lerner<sup>8</sup> argue that the use of preliminary injunctions (probably applies to other legal mechanisms as well) by large firms can discourage R&D by small firms.

(v) In licensing negotiations, patent insurance strengthens a patentee’s ability to license its patents, as potential licensees are assured that the patent holder is able to indemnify the licence in the event that a patent infringement claim is made by the third party.

(vi) It promotes investment in a company. A patent insurance policy is issued by an insurer after investigation of the validity and risk assessment of a company’s patent portfolio. It adds credibility to claims that the company’s patents are both valid and valuable and thus encourages investors.

(vii) For smaller industries, insuring intellectual assets can become an imperative and vital strategic business decision. Most companies would not like to use their profits to fight patent litigation cases. The problem is more accentuated for smaller companies that have comparatively weaker balance sheets. Litigation action along with the associated cost motivates involved parties particularly small firms, to consider the pros and cons of costly litigation. Patent litigation thus impacts growth and a company’s ability to invest in research and development.

(viii) It discourages frivolous lawsuits.

(ix) It prevents loss of market share. Bhagat<sup>9</sup> *et al.* have shown that the common stock of a typical defendant firm declines by about 1% when a lawsuit is filed. Patent insurance boosts investor confidence and arrests that decline in market share.

(x) It increases patent resale value.

(xi) Many a times the best investment is simply to hold a patent insurance policy.

### Unique Nature of Patent Insurance

Among other factors, an important reason as to why companies do not offer patent insurance is that this insurance involves high risk. Since patent insurance is not mandatory for every patent holder, it is sought only by those (a) who fear that their use of an industrial property right might be contested – and who expect to have to bear legal costs to defend themselves or (b) who hold an industrial property right which is regularly violated. Thus the probability of certain risk involved is high while insurance is for uncertain risks where calculation of risk is done on the basis of law of large numbers.

### **Mandatory vs Voluntary Scheme of Patent Insurance**

Patent insurance is indeed vital, specially for SMEs<sup>10,11</sup> but the question arises, whether it should be made mandatory for every patentee or should it be left to the discretion of the patentee and the insurance companies.

Currently no country has a law providing a compulsory scheme of patent insurance. A mandatory scheme can be introduced by enacting legislation, though such a scheme will involve various types of administrative controls from insurers as well as the government, but in the present situation without compulsion no scheme is likely to succeed. A system will have to be developed with a mandatory scheme such that there is coordination between insurance companies and national patent offices so that renewal of insurance premium paid certificate is immediately and automatically sent by insurance companies to the patent offices. This will be essential to renew the patents. A mandatory scheme should be such that it has wide uptake and is readily acceptable by the patentees. The premiums should be set at a level that it does not bring undue burden to the patentee.

Also in both, a voluntary as well compulsory scheme, only a non-technical risk assessment should be done at the commencement of policy while the technical risk assessment should be done only at the time a specific risk arises. Furthermore, minimum standards of protection should be set out and insurers should be a given free hand in offering various riders, benefits in the policy. Considering the current scenario, it is beneficial that a mandatory scheme be introduced for every patentee which can transform into a voluntary scheme with time as the patent insurance industry matures.

### **Essential Features in a Patent Insurance Policy**

Patent insurance is quite different from other kinds of insurance. There cannot be a uniform policy catering to the needs of every patentee. The first cardinal requirement for a patent insurance policy is that it shall be attractive and practical to both the patentee and the insurer. Patent insurance is at an infant stage in most of the countries while in some countries like Germany and US it has progressed to an adolescent phase. While designing a policy of patent insurance, following features should be included:

(a) Patent insurance should be taken at the time of grant of patent. At that point of time normally there will not be any known prospect of litigation attached to the patent.

(b) Risk assessment is done by insurance companies for deciding the premium and setting out terms and conditions in a policy. Technical risk assessment involves assessment of the ability of the claims to withstand onslaught a court of law, study of prior art and inventive step by insurance companies. The insurance companies would not be relying solely on patent offices and would independently assess the length and breadth of claims. This would require experts- patent attorneys, actuaries, underwriters, technical experts of the industry concerned, etc. However, all this would substantially increase cost of the policy and make the policy unattractive. Therefore, the commencement of policy should only entail assessment of the patentee and not the patent. To make the scheme widespread, technical risk assessment should be done only when a known prospect of litigation i.e. a specific risk arises. However, terms and conditions of assessment should be negotiated before issuance of policy.

(c) Non-technical risk assessment of the patentee would involve his history of handling and enforcing his patents, his credibility in the market and his ability to handle and monitor conflicting patents. Non-technical risk assessment of the patent would involve study and assessment of related patents in the field. This assessment should be done at the commencement of the policy.

(d) The underwriting process is quite complex in patent insurance. It involves rigorous discussion with the patentee relating to his patented claims, strength and weaknesses of the patent and detailed analysis about patent's ability to withstand litigation in a court of law. Moreover it lets one know about any fault on part of patent offices in issuing a patent. Though the underwriting process is costly, the initial focus on price quickly transforms into focus on value.

(e) Like first party motor insurance, lesser premium in subsequent years when no claim in a policy has been made in the preceding years makes a patentee diligent about the patent infringement.

(f) The right of a patentee to litigate, to judgment and appeal should not be curtailed, even if settlement is commercially sensible, because only the threat of injunction and damages awarded by a court can maintain the value of patents in general. A patent is a property right which the owner is entitled to enforce; and a monopoly in the market will, in many cases, be more commonly attractive to a patentee than an agreed compromise licensing arrangement.

(g) The right of insurers to exclude a particular class of patentees in a compulsory scheme which they consider to be inappropriate and unattractive must not be curtailed. Further, insurers should be given a free hand to set premiums, to see documents in case of litigation and provide their opinion and technical expertise.

### Setting Premiums for Patent Insurance

Patentees would like to insure their patents only if the premiums are reasonable. Further, premiums should be set at a level which gives an average profitability to the insurers. The insurance premiums for patent insurance depends on the patent and/or the product being protected. They usually range between 2-5% of the insured amount. The factors that determine the premium rates are the past record of the firm, the care taken in patent research to prevent infringement and the firm's own R&D work. Premiums may differ widely for the same patent depending on the type of risk assessment done at the inception of policy. To keep premiums low only non-technical risk assessment of the patentee, in terms of size of company, commercial field, and the number of patents already owned in the technical field, should be done at the date of commencement of policy. The technical risk assessment should be done for the patent itself at the time a claim arises and not at the outset except when there is a chance of adverse selection or when a patentee wants to secure a specific risk.

Besides technical and non-technical assessment factors, premium for patent insurance depends on the legal cost involved in fighting a patent. Wide differences in litigation cost per patent creates significant differences in premium in different countries. Keeping in view the legal cost, a premium is dependent on three factors:

(a) The incidences of litigation in a particular country: The ratio of litigation to European patents in force is 1:300 for Germany, 1:2000 for Spain, 1:2500 for Netherlands, 1:2000 for Austria and 1:2000 for United Kingdom.<sup>1</sup> The high incidences of litigation in Germany is reflected by the fact that Germany accounts for about 45% of the total European litigation.

(b) Litigation cost per patent in force: This varies from € 730.11 in Germany, to € 24.29 in Spain, € 64.41 in Netherlands, € 3.40 in Austria and € 221.08 in UK.<sup>12</sup>

Both the above factors attribute to high premium for patent insurance in Germany which for the standard € 250,000 indemnity is about € 1200 while the same figure for Spain, Netherlands, Austria and United Kingdom is € 120, € 300, € 60, and € 600 respectively.

(c) Settlement rate: This is examined for a particular class of industries in a particular country i.e. past experience of how far the litigation case goes considering that the litigation process is divided into four stages, (1) filing of the suit, (2) pre-trial hearing, (3) commencement of trial, and (4) adjudication at conclusion of trial.

Premium is also dependent on the average life span of a patent in a particular country. During the early stages various administrative, underwriting and set-up costs are involved, as a result, insurers are able to obtain profit only at a later stage. Approximate average life of a patent varies widely amongst countries. Premiums would be high in countries having lower patent life span.

### Important Issues to be Addressed

There are certain scenarios that need serious deliberation before a patent insurance policy can be implemented in a country or market:

(a) Insurers that cover both parties may be an issue that needs to be contended with suitable provisions. A problem may arise when the same insurer covers both the plaintiff and the defendant.

(b) In a mandatory scheme, are insurance companies bound to extend or provide coverage to parties in patent liability insurance if at some stage they detect that they are giving wrong coverage? This is because the essence of patent insurance is providing right protection and not willful infringement.

(c) If a patentee knowingly delays suit against an infringing company considering that the infringement is of small magnitude which will increase at a later stage, then are insurance companies bound to extend coverage?

(d) In case of a mandatory scheme, should payment of the insurance premium be linked to the renewal of patents?

(e) Should there be a level or uniform premium for whole term of the patent like in life insurance policies or should they be renewed along with patent renewal like in general insurance policies? As a consequence, should underwriting and assessment of risk be done every time at renewal of patents or only at the commencement of policy?

(f) A problem may arise where markets fail even in the absence of adverse selection. This can happen due to the problem of over litigation as the parties concerned are induced to file suits even when the infringement is uncertain or absent, since they bear no

cost of litigation. Van Velthoven and Van Wijck<sup>13</sup> suggest that the net welfare effect of insurance could be ambiguous since welfare gains derived from increased deterrence might be outweighed by welfare losses due to increase in the number of trials.

(g) In the event of a claim who will control litigation strategies - the insurer or the patentee?

(h) If a prospect of litigation becomes apparent to the insurer at the time of renewal of insurance and the insurer refuses to renew the contract of insurance then how will the interest of the insured be protected?

(i) When the insurer has not been informed of the suit a patentee is contesting, soon after its filing, is the insurer liable to give protection?

The recent case between Pfizer and India's largest drug maker Sun Pharma and Israeli drug giant Teva, where the latter have agreed to pay US\$ 2.15 billion to Pfizer in an out-of-court settlement has once again highlighted the issue of patent insurance. The case involved patent infringement of the acid reflux drug 'Protonix' of Pfizer by the two companies, Sun Pharma and Teva who launched generic drugs before the expiry of patent. The patent covering the active ingredient in pantoprazole was to expire in January 2011. Protonix, recorded peak annual revenue of almost US\$ 2 billion in 2007, before sales plunged following 'at-risk' launch of generic versions by Teva in 2007 and Sun Pharma in 2008. A New Jersey jury ruled in April 2010 that Teva had infringed the patent and following it a settlement came in June 2013. As part of the settlement, Sun Pharma will pay US\$ 550 million to Pfizer and Takeda, who owns the patent and Teva will pay US\$ 1.6 billion. The settlement is likely to hit badly the acquisition plans of Sun Pharma. Following the settlement, Sun Pharma suffered a loss of Rs. 1,162 crore in the quarter ended 30 June 2013 compared with its net profit of Rs. 795.5 crore in the year-ago quarter.

In the Pfizer vs Teva contest over Protonix, after the settlement, Teva's statement that it may have up to US\$ 560 million of net insurance coverage for the settlement led its insurer Illinois Union Insurance Co to file a suit in the Pennsylvania Federal Court claiming it did not have to cover a portion of Teva's US\$ 1.6 billion patent infringement settlement since it was never properly notified of the suit. According to court filings, Illinois agreed to an insurance contract with Teva in June 2002. The deal covered US\$ 5 million in total limits of liability and had

underlying limits of US\$ 100 million, an excess of US\$ 15 million in retention for each claim and US\$ 75 million in the aggregate. Illinois' suit claimed that the generic-drug maker's insurance broker failed to acknowledge the litigation claims to ACE Professional Risk Division, which was the agent responsible for reporting claims to Illinois. The insurance company said that it was not given a chance to defend Teva and thus is not liable for coverage. Teva according to them had breached its obligations under the insurance policy.<sup>14</sup>

## **Other issues of relevance to Patent Insurance Policy**

### **Choice of Insurers**

In a mandatory scheme, patentees should be given the option to choose their insurers. This will benefit patentees in choosing from a wide gamut of policies at affordable cost. It will also lead to competition among insurance companies which ultimately will result in growth of the patent insurance industry.

### **Types of Industries**

From the view-point of risk involved, there may be two classes of industries (a) those where cost and damages are very high including pharmaceutical, biotechnology, information technology and telecommunications. The average premium for these industries would be very high and patent insurance policy of these industries would require to be reinsured to avoid high risk for the insurer (b) all other industries.

### **Time of buying a Patent Insurance Policy**

One never knows when insurance will be required. Companies cannot get coverage for an existing problem; that is why patentees should be proactive about managing their patent risk by insuring early. Pre-existing commercial activity, whether known or unknown, is generally excluded from coverage. It is therefore important to secure coverage for intellectual property at the time of grant of patent.

### **Global Position**

Though patent insurance policies have been in the market in the European countries and in the United States for a long time, the situation is not very satisfactory as the demand has severely been limited by the high prices.

### **France**

In France, a compulsory insurance scheme known as '*Brevetassur* scheme' was in existence during the period 1986-1994. The scheme was jointly designed and financially supported by government, industry

associations and French insurers' federation (*Fédération française des sociétés d'assurance*). The compulsory policy had to be subscribed by the national patentees and offered cover for actions as plaintiff or defendant relating to patents, patent applications or utility certificates up to a maximum of FRF 100,000 for disputes declared in any one policy year with the geographical scope restricted in principle to the territory of France. Only about 100 policies were sold and were subject to heavy claims. The experiment was unsuccessful and almost all the private insurance companies blocked their policies after a few years. The failure was attributed to the limited geographical coverage and narrow scope in material and financial terms.

#### China

In 2012, the state owned Chinese insurer PICC Property and Casualty Co Ltd issued China's first Patent Insurance product. It was issued to a chemical company in Jiangsu which paid a premium of RMB 2,000 and covers legal fees and investigation costs of up to RMB 40,000.<sup>15</sup>

#### The United States of America

Many companies offer patent insurance policies in US, notable among them being Intellectual Property Insurance Services Corporation, Alta Financial and Insurance Services LLC and RPX Insurance Services.

Patent insurance is more important in the US especially in the pharmaceutical sector due to 'at-risk' launches which are allowed according to US law. An at-risk launch is when a generic drug maker begins selling the generic product before expiry of the patented product. Generic companies launch copies of big-selling drugs on the market as quickly as possible. Generic companies through paragraph IV filings challenge the patent for a brand-name drug and begin selling copies of the patented drug if they get approval from the Food and Drug Administration (FDA), following a 30-month delay triggered by the filing of a patent-infringement lawsuit by the patent holder for the original drug. If the lawsuit is not decided during the 30 month period, the FDA gives 180 days exclusive marketing rights to the first to file generic company. The upside is that generic companies can make big profits immediately after at-risk launches, before other generic companies have a chance to enter the market and push down prices further. The risk, as illustrated by the Protonix case, is that the patent for the branded drug can be eventually upheld, exposing

the generic drug maker to liability for damages for lost profits by the branded drug's manufacturer. If the patent holder can prove that a generic company willfully infringed upon a patent, damages can be tripled.

#### India

In India no insurance company offers patent insurance. Only New India Assurance company has issued a patent infringement insurance policy to an IT company.<sup>1</sup> This is despite the fact that the post-TRIPS Agreement (Agreement on Trade Related Aspects of Intellectual Property Rights) period has witnessed rapid increase in the number of patents filed and granted. There is no reasonable explanation on offer by the Indian insurance industry which is more than 190 years old as to why no patent insurance policy is offered. That it is a high risk sector is reinforced by the fact that a major chunk of patents is issued to pharmaceutical and IT industry. Not only are no insurance patents applied for by the Indian insurance industry,<sup>16</sup> there are also no insurance offers on the block for patents thus ignoring this huge potential market.

#### Germany

The German market is quite well developed in terms of patent litigation compared to other European markets. The ratio of litigation to European patents in force is very high (1:300) compared to other Member States. The total German litigation accounts for about 45% of the total European litigation.

### Future Patent Insurance Policy Scenario

#### Variation in Policies

Various permutations and combinations of policies can be offered depending on the types of industries, the level of risk involved, etc. Some variations which may be offered are:

- (a) Pursuit cover against infringement by third party
- (b) Defence cover against allegation of infringement by third party
- (c) Policy covering both cost and damages
- (d) Cover comprising only cost of litigation
- (e) Co-insurance only for defendant or plaintiff or for both
- (f) Reinsurance for high risk policies
- (g) Return of a part of premium in the event of no claim
- (h) Single premium policy at discounted rate instead of yearly mode of premium payment subject to renewal of patent

### What Insurers need to do

Insurance companies globally can set up a distinct department of patent insurance having technical experts from various fields. Without prejudice to the right of the insured, insurers also prefer to have a panel of lawyers and patent attorneys to conduct litigation, who operate under an agreed protocol covering the reporting back of changes in the odds of success as the case progresses, with regular re-evaluations of the case, with the ever-present possibility of settlement in the light of new evidence or other factors. The insurers own the social responsibility of promoting innovative spirit which ceases to exist when protection for patents is not there.

### Bigger Companies vs Small ones: Cost and Damages

Insurers mainly provide two types of coverage (a) cost only i.e. litigation cost only and (b) cost and damages. Though damages are rare compared to costs, their gravity is huge. Bigger companies are more interested in the damages part, they have on their roll patent attorneys and experts to fight the legal battle and have annual patent litigation budgets designed for global litigation strategies. On the other hand, SMEs that have comparatively weaker balance sheets, dread the idea of patent litigation. They wish to be covered for only costs keeping in view that premium for policy, covering both cost and damages, is sufficiently high for them. From the insurer's point of view, they are also averse to cover damages especially in early stages of a scheme when there is greater uncertainty. Damages could be awarded by court or they may be part of out-of-court settlement as seen in the case of Pfizer v Sun Pharma and Teva. Court awarded damages are generally higher compared to settlement damages. For e.g. average of court awarded damages in Germany is € 250000, in France € 75000 and in UK around € 3million while the average for settlement damages is about € 50000 in Germany, € 50000 in France and € 100000 in UK.<sup>12</sup>

### Conclusion

Patent insurance should be made compulsory providing minimum standards of protection like third party motor insurance. However insurers should be left free to offer variation in policies. Patent insurance would particularly benefit individual patentees and SMEs.<sup>10,11</sup> The only scheme that appears viable in the current scenario is mandatory insurance which can be made optional later on. For any scheme to be feasible, its terms and conditions must be attractive to patentees

and acceptable to insurers. While establishing such a scheme might not be easy, it appears possible that premiums could be affordable. Most insurers are distinctly risk averse when it comes to patent litigation insurance given its past record, but some might be willing to enter at the outset and it appears that re-insurance is an option. It is likely that patent insurance will substantially increase innovative and competitive spirit in the society.

### References

- 1 Menon Radhika, Copyright, trademark, patent infringement cover on the rise, *The Hindu Business Line*, <http://www.thehindubusinessline.in/bline/2006/09/12/stories/2006091202380600.htm> (accessed 20 May 2014).
- 2 [http://www.wipo.int/pressroom/en/articles/2013/article\\_0028.html](http://www.wipo.int/pressroom/en/articles/2013/article_0028.html) (accessed 28 October 2014).
- 3 Litigation continues to rise amid growing awareness of patent value, <http://patentyo.com/media/docs/2013/03/2012-patent-litigation-study.pdf> (accessed 20 May 2014).
- 4 When the expected cost of litigation rises, the level of infringement tolerated increases and the value of patent protection is correspondingly diminished. Consequently patents will be kept in force for a shorter period of time, and some inventors will not find it worthwhile to patent their innovations in the first place. In the context of patents, one way of avoiding disputes with other patentees is to avoid innovating and producing in areas where others are present. In particular if the threat of litigation is an important concern one would expect that small firms would tailor their R&D programs so as to avoid conflict, especially with large firms that have lower legal costs and that would be likely to actively pursue infringements. Lanjouw J O & Learner J, The enforcement of intellectual property rights: A survey of the empirical literature, <http://www.nber.org/papers/w6296> (accessed 25 November 2014).
- 5 Grindley P & Teece D, 1997, Managing intellectual capital: licensing and cross-licensing in semiconductors and electronics, *California Management Review*, 39 (2) (1997) 8-41.
- 6 [http://en.wikipedia.org/wiki/Patent\\_infringement](http://en.wikipedia.org/wiki/Patent_infringement) (accessed 25 May 2014).
- 7 Lerner J, Patenting in the shadow of competitors, *Journal of Law and Economics*, 38 (1995) 463-496.
- 8 Lanjouw J O & Lerner J, Preliminary injunctive relief: Theory and evidence from patent litigation, *Journal of Law and Economics*, 40 (2002) 436-90.
- 9 Bhagat S *et al.*, The costs of inefficient bargaining and financial distress, *Journal of Financial Economics*, 35 (1994) 221-247.
- 10 Estimates of legal costs in patent litigation in the United States for example, run from US\$ 1-3 million per suit to US\$ 500,000 per claim, per side. In the light of such expense, it is suggested that legal expense insurance is necessary, in particular for SMEs to protect and enforce their respective intellectual property assets. The economic premise underlying the Danish approach is that legal expense insurance will increase patents and R&D activity, as well as knowledge spill-overs, where one firm can learn from another. The reasoning here is that the presence of such schemes will reduce the risks that SMEs face in undertaking

- patenting activity, Beynon K S, Davies I R, Moore N J, Legal Expense Insurance Report, Intellectual Property Wales (IP Wales, ED Cymru), <http://www.swansea.ac.uk/media/media,13583,en.pdf> (accessed 25 November 2014).
- 11 The size of an innovator, or its level of sophistication, can play an overriding role in determining property rights. That is, a smaller entity is inherently at a disadvantage against a larger one. Insurance coverage treats policyholders equally, regardless of size or sophistication. Insurance may offer solutions by placing a policyholder with few resources in a developing nation on an equal footing with a larger one in a developed nation, Underwriting the risks of innovation, [http://www.wipo.int/wipo\\_magazine/en/2011/04/article\\_0007.html](http://www.wipo.int/wipo_magazine/en/2011/04/article_0007.html) (accessed 25 November 2014).
  - 12 A study for European commission, CJA Consultants, [http://ec.europa.eu/internal\\_market/indprop/docs/patent/studies/pli\\_report\\_en.pdf](http://ec.europa.eu/internal_market/indprop/docs/patent/studies/pli_report_en.pdf) (accessed 20 May 2014).
  - 13 Van Velthoven B & Van Wijck P, Legal cost insurance and social welfare, *Economic Letters*, 72 (2001) 387-396.
  - 14 The case is *Illinois Union Insurance Company v Teva Pharmaceuticals USA Inc et al.*, case number 2:13-cv-03869, in the US District Court for the Eastern District of Pennsylvania, <http://www.law360.com/articles/455191/teva-s-1-6b-pfizer-patent-deal-isn-t-covered-insurer-says> (20 May 2014).
  - 15 Patent insurance in China, [www.indiabourse.com](http://www.indiabourse.com) (accessed 20 May 2014).
  - 16 Rahul Sinha, Insurance Patents: Indian Scenario, *Journal of Intellectual Property Rights*, 17 (2012) (2) 152-156.