

This paper is a brief summary of research related to and resulting from the Trade Secret Protection Index (TSPI), which the authors created for the OECD. For a detailed initial paper establishing the TSPI, see Schultz & Lippoldt (2014) at http://www.oecd-ilibrary.org/trade/approaches-to-protection-of-undisclosed-information-trade-secrets_5jz9z43w0jnw-en;jsessionid=h2bo2q0lcrqn1.x-oecd-live-01. Several more papers are pending but have not yet been released to the public.

TRADE SECRETS, INNOVATION AND THE INTERNATIONAL TRADING SYSTEM

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1. Introduction¹

1. As intangible assets have become central to the world economy (OECD, 2011), trade secrets have become more important. In many advanced economies, investment in intangible assets routinely amounts to 5 or 10% of GDP. In some countries, such as the United States, investment in intangible assets now exceeds investment in tangible assets. The increased importance of intangible assets has been accompanied by an accelerating pace of innovation, growth in the share of services in overall economic activity, and expansion of trade and foreign direct investment. Trade secrets have played an important role in these developments. Governments and businesses increasingly herald their importance. They are key to securing returns on research and development (R&D), improvements to industrial and business processes, and development of business information.

¹ The views expressed are those of the authors and do not necessarily represent the views of the OECD, OECD Member countries, George Mason University or Southern Illinois University.

2. This paper reflects on trade secrets, innovation, and the WTO, a topic that is being increasingly debated as part of the public discourse on intangible capital and intellectual property rights. The authors propose several ways to improve the existing international framework governing trade secrets.

2. Overview of the topic and why it is important

3. Businesses, policy makers and scholars have focused more on trade secrets in recent years, recognizing that they hold substantial economic value, contribute significantly to innovation, and influence knowledge diffusion. Trade secret protection plays an essential role in an IP system, complementing or substituting for other formal means of IP protection, such as patents, plant variety protection or copyrights.

What is a trade secret?

4. The WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) was the first multilateral agreement to explicitly require member countries to provide protection for “undisclosed information,” or, as they are more commonly called, trade secrets.² Article 39.2 of TRIPS defines a trade secret as **information that (1) is secret, (2) has commercial value because it is secret, and (3) has been subject to reasonable steps to keep it secret**. Following TRIPS, this definition has been widely adopted into national laws, and thus is the definition used in this article.

5. Trade secrets cover three broad categories of information: (1) technical information; (2) confidential business information; and (3) know-how. Technical information concerns such matters as industrial processes, blueprints, and formulae, among other possibilities. Confidential business information typically includes customer lists (provided that they include truly non-public information), financial information, business plans and similar types of non-public information regarding the operation of a business. Know-how includes information about methods, steps and processes for achieving efficient results. In addition, Article 39.3 of TRIPS requires protection of non-public test and regulatory data disclosed to governments to obtain approval of pharmaceutical or agricultural chemical products that use new chemical entities.

6. The TRIPS Agreement does not provide much specific guidance on the details of laws protecting trade secrets. Consequently, there is great diversity in how WTO members provide TRIPS-mandated protection. In some instances, countries have implemented legislation expressly addressing trade secrets protection or have well-established common law protection. Other countries meet their TRIPS obligation via laws of more general application against unfair competition or breach of duty. The variation amongst these approaches can affect the ways businesses and workers conduct their affairs.

7. Like other rights in intangibles, trade secret law secures the investment of the developer, but differs from other intangible rights in important ways. Unlike intellectual property rights (IPRs) that offer protection for specific time periods (e.g. 20 years for patents), trade secrets may last indefinitely, but in

² In making the link to protection against unfair competition, the WTO TRIPS Agreement Article 39 references Article 10*bis* of the Paris Convention for the Protection of Industrial Property, a convention that is administered by the World Intellectual Property Organization. The application of the TRIPS Agreement is subject to some transitional arrangements for developing countries and least developed countries (LDCs), which are discussed in Part VI of the agreement. Subsequent decisions by the TRIPS Council and Ministerial Council extended the transition period for LDCs through 1 July 2021 (http://www.wto.org/english/tratop_e/trips_e/ldc_e.htm).

fact are relatively fragile. As Maskus (2000) points out, they “are not protected against learning by fair means, such as independent creation, reverse engineering or reading public documents.” Trade secret law thus secures the fruits of the labour of the developer by providing an exclusive right to use information it has developed. However, it does not confer the right to exclude those who labour *independently* to develop the same information, so long as the second party obtains the information fairly or it enters the public domain by fair means.

Economic Importance

8. Because trade secrets are, in fact, *secret*, the full scope of their economic importance is somewhat obscured. However, existing evidence indicates that their importance is great,³ and businesses and policymakers are increasingly aware of their importance. For example, a recent EC-sponsored survey of 537 businesses in Europe found that 75% ranked trade secrets as “strategically important to their company’s growth, competitiveness and innovative performance” (EC, 2013). One study for the United States in the past decade put the annual cost of trade secret theft to US firms as high as USD 300 billion (Almeling et al., 2010). Interviews with members of the European Chemical Industry Council indicate that misappropriation of a trade secret or confidential business information could entail a loss of revenue for a firm of up to 30% and sometimes much more (CEFIC, 2012).

9. Trade secrets appear to be especially important to small and medium size enterprises (SMEs). For many SMEs, trade secrets have several advantages over patents – particularly lower cost and lack of registration requirement -- making them the default mode of protection for intellectual capital for SMEs (Brant and Lohse, 2013).

10. The economic literature explains the important economic incentives that trade secret law provides.

- *Invention and Commercialisation*. It encourages firms to invent and invest in the development of commercially valuable information by securing their ability to appropriate returns on their efforts.
- *Efficient Protection and Acquisition of Knowledge*. By deterring theft and providing recourse, trade secret law reduces the need of the owner to resort to more extreme, inefficient, and costly protective measures by owners where more moderate measures may suffice. As Risch (2007) points out trade secret protection can channel both trade secret owners and competitors into more efficient behaviour. The owner optimizes, rather than maximizes, security, while the competitor is less likely to engage in inefficient and undesirable activities such as bribery and espionage attempting to appropriate the secret (Friedman et al., 1991).
- *Knowledge Spillovers*. By reducing risk, trade secret law promotes the sharing of trade secrets with a broader circle of contacts, which may lead to follow on innovation and greater development of human capital – what are often called knowledge spillovers. For example, Friedman et al. (1991) observe that the availability of trade secret protection discourages use of less efficient and more restrictive alternative approaches to protection, such as hiring only family members or paying wage premia to prevent employee movement. Ironically, effective trade secret regimes thus may lead to greater knowledge diffusion (Lemley, 2011).

³ For further details on the importance of trade secrets in many economies see Schultz and Lippoldt (2014), Box 3.

11. As governments increasingly recognise the importance of trade secrets, they have undertaken a number of initiatives to address uncertainty or gaps in protection. The European Commission launched a draft directive in November 2013 to harmonise key aspects of civil trade secret protection across the Member countries. The directive would provide a common definition of trade secrets, means through which victims of trade secret misappropriation can obtain redress (e.g. offering protection of secrecy during court proceedings), and remedies (e.g. penalty payments, damages, recall and destruction of infringing products, and availability of injunctions).⁴ In 2013, the United States released the “Administration Strategy on Mitigating the Theft of US Trade Secrets”, which included a set of action items for improved protection domestically and internationally.⁵ Among other actions, the strategy would promote prosecution of abuses, development of industry-led best practices, review of laws, diplomatic engagement, and public awareness.

Trade Secrets Protection Index - Taxonomy of elements of protection

10. In previous work, the authors developed an indicator to measure the stringency of trade secret protection across countries, the Trade Secrets Protection Index (TSPI) (Schultz and Lippoldt, 2014). The TSPI is structured on five main components:

1. Definitions and coverage
2. Specific duties and misappropriation
3. Remedies and restrictions on liability
4. Enforcement, investigation and discovery; data exclusivity
5. System functioning and related regulation.

The approach to scoring provides up to one point for each of the five main components of the index and a maximum total score for the index of five points.⁶ The index captures objective, verifiable information on the stringency of available protection in a manner that is internationally comparable and non-normative (i.e. the index measures stringency, but does not specify a preferred level of protection).⁷

⁴ The draft directive and related materials are available on line, here (as of 23 May 2014): http://ec.europa.eu/internal_market/iprenforcement/trade_secrets/index_en.htm#maincontentSec1.

⁵ This strategy is available on-line at the following location (as of 3 April 2013): http://www.whitehouse.gov/sites/default/files/omb/IPEC/admin_strategy_on_mitigating_the_theft_of_u.s._trade_secrets.pdf.

⁶ The 5 index components are scored based on 37 underlying indicators. These are primarily empirical indicators employing objective criteria that can be independently verified. Some dimensions concerning system operation take into account peer reviewed expert opinion. For details on the scoring and structure, see: Schultz and Lippoldt, 2014, Chart 1.

⁷ The development of the TSPI index is a pioneering effort to advance analysis based on international comparisons of a broad range of alternative protections available for trade secrets. A variety of similar indices cover other types of intellectual property and even certain aspects of trade secrets protection. For example, Park (2008) employed laws-on-the-books approaches to examine protection of patents, trademarks and copyright. Pugatch et al. (2014) developed an empirically based index of the strength of IPR protection, which also incorporated industry perspectives. Png (2012a and b) developed an indicator for use in his analytical work on trade secrets protection in the United States. Certain of these indicators

12. Figure 1 presents the index scores as of 2010 for a broad sample of 37 economies at various levels of economic development and from locations around the world. With scores ranging from 2.45 to 4.49, the Figure highlights the continued diversity remaining among the sample economies some 15 years after the entry into effect of the TRIPS Agreement. Moreover, one can observe the different combinations of components that the various economies employ. In some cases, similar scores are attained by divergent combinations of strength in each component of the index. For example, Chinese Taipei and Argentina have similar scores, but different approaches. Argentina has a stronger score for *Duties and misappropriation* (e.g. covering both express and implied duties in employment and commercial relationships). Chinese Taipei has a stronger score for *Enforcement, investigation and discovery; data exclusivity* (e.g. offering 5 years of data exclusivity for pharmaceutical products and 8 years for agricultural chemicals). Overall, the international comparisons shown in the figure represent a challenging environment for businesses operating internationally because consistent protection is not available for certain aspects of trade secrets.

3. Key issues and challenges

13. The past two decades have witnessed a wave of reform of trade secrets protection catalysed by the TRIPS Agreement, regional accords, and national law revision. The stringency of protection as measured by the Trade Secrets Protection Index has increased from an average of 3.11 in 1990 to 3.59 in 2010. However, the increased average is not the result of uniform changes to law, but rather, a multiplicity of diverse approaches. The resulting complexity poses a challenge for businesses and employees operating internationally. Thus, it is perhaps not surprising that discussions of the topic often suffer from a lack of clarity, conflating a set of distinct (albeit related) concerns into a single problem.

14. From our review of the literature, case reports, and press, we have identified four major challenges that are highlighted in current policy discussions. The term “trade secrets” is often invoked to address three⁸ types of abuse, as well as the cross-cutting challenge of ensuring appropriate opportunities for employee mobility. In order to align challenges properly with possible solutions, we consider the specifics of each in turn below.

- *Breach of Trust.* This category of trade secret theft occurs where an employee or business partner breaches trust to disclose or use a trade secret in an unauthorized manner. It occurs most frequently where departing employees take trade secrets and use them to start a competing business or disclose them to benefit their new employer. It also occurs where a commercial partner abuses trust – for example, a competitor misuses information discovered

have been utilized in related studies conducted by the OECD on patents, trademarks and copyright, e.g. see: Park and Lippoldt (2008); Cavazos and Lippoldt (2010). Lippoldt (2011) presents related material.

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Yet another category of concerns often invoked in trade secret policy discussions relates to data security and data breaches. In several notable recent instances, hackers have stolen vast numbers of credit card numbers and other personal information from retailers. Strictly speaking, such attacks are not trade secret violations because they target non-proprietary, third party consumer data. However, corporate security practices and laws protecting computer systems can play a dual role in protecting both trade secrets and consumer data.

during negotiations to buy a business, a distributor or service provider uses information to its own advantage.

- *Corporate Espionage.* This category of trade secret theft occurs where an unrelated third party uses surreptitious means to acquire trade secrets. In some instances, the behaviour involves simple opportunism, such as trespassing to take photos, sorting through disposed papers or equipment, or buying formulae or blueprints offered by a disloyal employee. In other instances, however, the behaviour is much more systematic and sophisticated, involving such acts as planting false employees or “moles,” bribing one or more employees to become long-term spies, and hacking into computer systems.
- *State Sponsored Corporate Espionage.* This category of trade secret theft occurs where state-owned companies engage in cross-border corporate espionage or when governments acquire information from foreign businesses for the benefit of their own businesses and industries.⁹
- *Employee mobility.* Unlike the foregoing challenges of trade secret theft, employee mobility is positive and important, facilitating economic adjustment, knowledge diffusion, and freedom. The challenge in this regard is to find the appropriate balance in protecting trade secrets while avoiding undue constraints on employee mobility.

15. These distinct problems require distinct solutions. Of the three sets of theft-related issues, breach-of-trust problems are most adequately covered by existing laws, although this is not universally so. Corporate espionage is a more challenging problem, calling for a broader array of civil and criminal remedies than is often available. State sponsored corporate espionage is a challenging problem, unlikely to be adequately addressed solely by national laws, and thus calling for solutions at the international level. Employee mobility challenges are addressed by carefully tailoring trade secret laws and through a mix of civil or administrative law governing labour contracts and practices.

4. Ways forward: lessons and options

16. This section details six principles for improving trade secret protection worldwide. Since there are conflicting views in the WTO with respect to protection of trade secrets, the authors offer these principles as a starting point for discussion. They could also serve as the basis of a framework to guide implementation among willing WTO members. This framework could take the form of a non-binding understanding that would not prevent countries from having more stringent protections. It might eventually be employed as a starting point for consideration in a regional or a plurilateral accord in the context of the WTO.

17. These are the six principles:

- 1. *The definition of trade secret should, in its broad outlines, be no more restrictive than the three part definition set forth in TRIPS Article 39, paragraph 2.***

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A recent example of such activity can be found in a US Federal Government court case launched against 5 Chinese military officials for allegedly hacking into computers at five US companies. US officials are apparently considering what type of responses might be appropriate in light of such espionage, including freezing assets or individual sanctions such as visa restrictions, or possibly national-level action at the World Trade Organisation. Source: Wall Street Journal, 2014, “US to Rev Up Hacking Fight”, 23 May.

2. ***Trade secret law should effectively sanction both breach of duty and third party misappropriation.***
3. ***Trade secret law should offer a full array of remedies, including ex parte preliminary injunctions.***
4. ***Trade secret laws should include effective provisions for investigating claims.***
5. ***Trade secrets should be effectively protected during litigation.***
6. ***Trade secret laws and related laws should take a balanced approach to employee mobility in attempting to protect confidential information.***

18. We stress that the six principles offered here are basic, core principles. Implementing these principles would not maximize the level of trade secret protection, and this paper makes no judgment as to whether it would be desirable to do so. Rather, these principles are essential to a trade secret protection regime that simply functions well enough to fulfill its fundamental, intended purposes. If they are not satisfied reasonably, a trade secret regime likely will not serve much better than no protection at all. In this respect, we note that trade secret law, and the policy discussions surrounding it, are not as advanced as in patent law and copyright law, where questions of fine-tuning maximum levels of protection via tools such as subject matter and term have been debated for many years. Trade secret law and the policy discussion surrounding it remain at a far more fundamental level.

19. The six principles are set forth in broad terms, in recognition of the fact that legal systems and traditions vary widely. They will need to be addressed taking into account fundamental differences in legal regimes. Thus, they aim to achieve greater coherence and effectiveness in the results for trade secrets protection without challenging the fundamentals of each country's legal regime. Rather, the objective is to set standards for availability and levels of protection. Appended to the list of principles are a few observations on the need for further dialogue concerning the matter of data exclusivity with respect to pharmaceuticals and agricultural chemicals (Box 1).

1. *The definition of trade secret should, in its broad outlines, be no more restrictive than the three part definition set forth in TRIPS Article 39, paragraph 2.*

20. Since TRIPS, definitions of trade secrecy have converged worldwide. The common definition stems from TRIPS Article 39, paragraph 2, which contains an agreed-upon, three-part definition of trade secrets. In short, as noted above, a trade secret must be (1) secret; (2) derive commercial value from secrecy; and (3) be the subject of reasonable efforts to maintain secrecy.

21. Nevertheless, a few countries have added or maintained additional requirements that significantly narrow trade secret protection. For example, Russia requires a trade secret owner to take several additional steps to qualify information for trade secrecy.¹⁰ Among these required steps are that the owner must record trade secrets in an inventory and include a formal notice on all documents. Similarly, English common law once required that information be divulged in confidence – thus only protecting trade secrets from breach of duty, not misappropriation by third parties. While the U.K. has abandoned this view, several countries with English legal origins have apparently maintained it, including New Zealand and India.

22. Such additional requirements significantly narrow trade secret protection, allowing some infringers to avoid liability on technicalities while providing little benefit to society. They do not play a particularly

¹⁰ Article 1462, Federal Law on Commercial Secrecy, No. 98-FZ, Article 10 (July 29, 2004) (as amended 24 July 2007).

helpful role in ensuring that trade secrecy is contained within appropriate normative and economic bounds. Nor are they necessary to ensure notice to third parties.

23. The requirements embodied in TRIPS Article 39 already do the necessary work to establish an appropriate scope for trade secrets. They channel it to ensure that owners only get the benefit of valuable information they actually create and keep secret. They thus give the owner an incentive to perform R&D. Moreover, the requirement of reasonable efforts to maintain secrecy ensures that trade secret owners provide proper notice and take appropriate precautions in the context of a particular type of secret.

2. *Trade secret law should effectively sanction both breach of duty and third party misappropriation.*

24. There are two ways that a third party can take a trade secret from its owner without claim of right¹¹: i) by using or disclosing it in breach of a duty to keep it secret; and ii) by misappropriating it by committing a crime, tort, or other wrongful act. Breach of duty is usually the act of an employee or business partners, while misappropriation typically is the act of an unrelated third party.

25. There are two types of duties to keep secrets: express and implied. The recognition of express duties imposed via contract is almost universal. Enforcement of contracts is the most basic form of trade secret protection, existing even where no other trade secret law applies.¹² However, many legal systems also impose implied duties, which typically apply to employees and managers. Implied duties may also apply to a commercial partner that is in a position of trust.

26. Implied duties are essential to effective trade secret protection. A trade secret owner may not be able to reliably anticipate the need for an express agreement. Employment relationships and other associations are fluid and changing, sometimes quickly, and agreements before the fact may not be feasible in all industries or situations. Typically, such duties are imposed only where the party subject to the duty knows or ought to know that there is a trade secret. A properly understood implied duty is unlikely to go too far or be imposed unfairly on unwitting employees, since a trade secret owner must also establish that it took reasonable precautions to maintain secrecy. Such precautions typically include ensuring that employees are aware that information is confidential and sensitive.

27. Sanctioning of third party misappropriation is also an important form of trade secret protection, though not quite as widely available as protection against breach of duty. For example, some common law countries such as New Zealand and India appear to lack such protection. Protection against third party misappropriation helps to deter and discourage, as well as sanction, acts of industrial espionage. Otherwise, trade secret owners may be vulnerable to eavesdropping and various forms of illicit gathering of information.

28. For some companies, competitors, rather than departing employees, pose the greatest threat to trade secrets. Departing employees may not have the resources to independently compete with their

¹¹ Trade secrets can also be lost if they become public knowledge because the owner fails to keep secrecy or the passage of time renders them common knowledge. They also can be acquired through independent development or reverse engineering, which appear to be universal defenses to trade secret infringement.

¹² This is the case in some LDCs, for example Myanmar. Whether contracts are reliably enforced is, of course, a further challenge.

former employer. Competitors most likely do, and if trade secret law contains no provisions to sanction misappropriation by third parties, then competitors may have free reign to conduct espionage.

29. Similarly, those who acquire trade secrets with knowledge of their wrongful disclosure or appropriation should also be liable. Otherwise, the most likely beneficiary of a disloyal employee – a competitor – may use the secret. This state of affairs surely deters R&D and other investments in developing proprietary information. Therefore, an effective trade secret law should cover both breach of duty and misappropriation, including “innocent” acquisition with knowledge of infringement.

3. *Trade secret law should offer a full array of remedies, including ex parte preliminary injunctions.*

30. While most countries provide a relatively full array of remedies in trade secret cases, there is significant variance with respect to the availability of preliminary injunctions. Preliminary injunctive relief is important to trade secret owners, because trade secrets are fragile. A trade secret owner’s first goal is likely to preserve its trade secret. It cannot rely on the defendant to guard its secrecy. In any event, a plaintiff will wish to preserve its profits and business relationships from the defendant’s intrusion. Therefore, a plaintiff likely will want an injunction as soon as possible and on an ex parte basis if possible.

31. Nevertheless, not all jurisdictions offer preliminary injunctions. In particular, the availability of ex parte injunctions varies. There are a few jurisdictions that do not provide ex parte injunctions at all, notably including Japan.¹³ In other jurisdictions, injunctions are notably slow in coming. In some jurisdictions the law provides for preliminary injunctions, but they are not in fact available for the most part (or at all). Such is the case in China and Russia.¹⁴ Moreover, delay may defeat the purpose of this remedy, as the trade secret may be lost. This is the case in Brazil, where one expert observed: “Although injunctions are rendered, the slowness of our Judiciary system is often incompatible with trade secret dynamics.”¹⁵

4. *Trade secret laws should include effective provisions for investigating claims.*

32. Trade secret owners may find it difficult to obtain evidence to prove their claims. By their nature, trade secrets are capable of concealment. Evidence of infringement is unlikely to be publically available, and in fact is likely to be in the potential defendant’s hands. That potential defendant may also find it possible to conceal or destroy evidence of wrongdoing. Therefore, procedures for investigating trade secret claims play an important role in trade secret enforcement. There are two types of institutions that enable plaintiffs to obtain the proof they need to obtain their claims: i) preliminary measures to preserve proof, and ii) rules and procedures regarding the disclosure and discovery of evidence.

¹³ Kazuo Ubukata, Question 215: Protection of Trade Secrets Through IPR and Unfair Competition Law, *AIPPI Report on Japan*, 8- 9 (2010).

¹⁴ See Schultz and Lippoldt (2014), Annex 2. One expert observes regarding China: Unlike a patent, trademark, or copyright, a trade secret is not a right granted by a government agency. Whether something constitutes a trade secret is almost always subject to disputes. As such, the likelihood of success on the merits is more difficult to prove for trade secret cases. Moreover, China has not adopted the inevitable disclosure doctrine. Therefore, it is rather unusual to obtain a preliminary injunction for trade secret misappropriation. Kazuo Ubukata, Question 215: Protection of Trade Secrets Through IPR and Unfair Competition Law, *AIPPI Report on Japan*, 8- 9 (2010).

¹⁵ Elisabeth K. Fekete, et al., Question 215, Protection of Trade Secrets Through IP and Unfair Competition Law, *AIPPI Report on Brazil*, 9 - 10 (2010).

33. Preliminary measures to preserve evidence that are available before a case commences may help a plaintiff to obtain proof that may later become unavailable. One procedure available in many countries is a preliminary search available before or at the start of litigation that is used to prevent the destruction of evidence.¹⁶ This type of search is particularly effective if ex parte, because surprise deprives the defendant of the opportunity to conceal evidence.¹⁷

34. The availability of pre-trial discovery also varies. In many countries, the opportunity to conduct discovery is either limited (typically to producing documents) or does not exist. These differences are, for the most part, not specific to trade secret cases, but rather are related to the origin of the legal system. Countries with an English legal origin tend to favour some amount of voluntary pre-trial disclosure of evidence between the parties, outside of the direct supervision and compulsion of the court. By contrast, civil law countries have much more limited, or no, pre-trial discovery. Lack of discovery may leave a plaintiff unable to prove a case and deter it from bringing a case at all. Since trade secret evidence is rarely public, proving a case without recourse to at least the defendant's documentary evidence is often impossible.

35. Although discovery procedures are typically largely uniform within a country, some countries enhance discovery for certain types of claims. Most notably, the EU's Enforcement Directive provides a model for such discovery options in the case of intellectual property.¹⁸ Although the EU Enforcement Directive is largely inapplicable to trade secrets, its existence points to a possibility and a model for more liberal discovery procedures with respect to particular subject matter.

5. *Trade secrets should be effectively protected during litigation.*

36. Trade secrets are fragile, and thus protection of them during litigation is important to trade secret owners. A trade secret owner often faces a situation where trade secrets have been misappropriated, but not made public. Litigation may put the secret at further risk of disclosure, to other competitors and the world, unless the court system offers sufficient safeguards. Where safeguards are insufficient, a trade secret owner may face the unattractive choice of letting a single competitor get away with trade secret infringement, or litigating and losing the trade secret entirely.¹⁹

¹⁶ These are often called an "Anton Piller Order" in countries with an English legal origin.

¹⁷ An example of a particularly effective preliminary measure is the EU *Directive on the Enforcement of Intellectual Property Rights* ("EU Enforcement Directive"). Article 7 of the EU Enforcement Directive contains "[m]easures for preserving evidence" that provide a full and effective opportunity to conduct a preliminary search. However, most EU members do not apply the Enforcement Directive to trade secrets, since they do not consider them to be intellectual property rights. The Enforcement Directive nonetheless serves as a good example of the type of subject-matter specific procedure that might be applied to trade secrets. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

¹⁸ See Article 6, Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights.

¹⁹ E.g., a European Commission study found that 45% of respondents had refrained from pursuing a trade secret claim. A significant numbers of firms reported reasons that appear to relate, at least in part, to concerns about the security of litigation. Respondents cited the following reasons (among others):

- 30.2% reported as a reason that "initiating legal action would bring the case to public attention;"
- 15.9% reported as a reason "lack of trust of the judicial system of the relevant Member State;" and
- 14.3% reported "fear of losing [the trade secret] in court proceedings." (EC, 2013, p. 129)

37. The reasons for lack of security are complex and varied. In some jurisdictions, it is a product of design, intended to vindicate other rights. For example, in Japan and Italy, constitutional mandates protect the rights of defendants to publically accessible evidence, particularly in criminal cases. In still other countries, lack of security is more by default. For example, Swedish courts have discretion at each stage of litigation (trial and appellate) to protect the record from disclosure – or not.²⁰ Nevertheless, many countries provide examples of specific rules and procedures to protect trade secrets during litigation. For example, the United States and Germany have specific provisions for the protection of trade secrets during litigation. The Republic of Korea, conscious that its procedures were lacking in this regard, adopted new procedures in 2012.²¹

38. Based on national experience, it appears that an approach to protection of trade secrets during litigation might include, at a minimum, provisions for:

- The opportunity to seal parts of the record from public disclosure;
- The opportunity to protect evidence from disclosure to the opposing party;
- Protective orders sanctioning the wrongful disclosure and use of evidence obtained in litigation;
- Closing court hearings to the public, at least during sensitive testimony.

6. *Trade secret laws and related laws should take a balanced approach to employee mobility in attempting to protect confidential information.*

39. As demonstrated by case reports and surveys, loss of trade secrets often takes place via insiders at enterprises, particularly employees. Employers may seek to reduce such risks by imposing post-employment obligations on employees. These duties typically arise from i) post-employment duties of confidentiality, either imposed by law or via enforcement of contract; and ii) non-competition agreements between employers and employees.

40. Such obligations may impede employees from seeking employment in the field where their skills are most useful. Thus, the recommendation presented here aims to take into account the need for balance between protection of employer trade secrets and employee interests to freely exploit their own general skills and knowledge in their chosen field of occupation.

41. In the event of an employee separation, a number of legal principles may prove relevant to the situation with respect to undisclosed information: i) protecting trade secrets, ii) the fiduciary duties of employees, iii) freedom of contract, iv) policies against restraint of trade, v) protecting an employee's ability to earn a living and vi) policies against wasting human capital. The first three may be invoked in support of post-employment protections for employers, while the second three may be engaged in support of limiting employee obligations to former employers. In practice, these competing principles are balanced through legal doctrines, positive laws, and policies governing the post-employment duties of confidentiality and non-competition agreements.

²⁰ One expert described the result in Sweden: “As a consequence a party submitting its secret information to the Court can never be certain that the Court will indeed classify the information as secret. Also, even if a party requests the Court to take such an action at the same time as the information is submitted, it may take some time before the Court has decided on the question of secrecy and during that time the information is left open for inspection.” Marianne Levin et al., *Protection of Trade Secrets Through IP and Unfair Competition Law*, AIPPI Report Q215, Sweden at 9 (2012).

²¹ MacLaren, *Trade Secrets Throughout the World* § 24:32 (2012).

42. The starting point for this recommendation recognises that: i) there are sound reasons to protect an employee's ability to earn a living through their general skills and knowledge and ii) former employees should not be able to earn a living by using a trade secret developed by somebody else. Thus, along with establishment of minimum standards of protection with respect to theft, as discussed above, reasonable criteria should also be introduced with respect to post-employment duties and obligations.

43. The essence of the standard is that: employees should continue to respect the specific trade secrets of former employers until the secrets enter the realm of public knowledge via legitimate means. At the same time, employees should be free to exercise their general skills and knowledge, with the possible exception of reasonable non-compete provisions.²² Where there are circumstances such that an employee cannot help but use a former employer's trade secrets for certain categories of new employer, the recommendation here is that employers be permitted to negotiate non-compete provisions provided they narrowly circumscribed so that:

- they are absolutely necessary to protect confidential information;
- they are reasonable in duration, subject matter and geographic scope.

Box 1. Data exclusivity for pharmaceutical products and agricultural chemicals

In addition to the six core principles discussed here, global regimes for protecting confidential information would benefit from clarifying and harmonising the obligations set forth in TRIPS Article 39.3 with respect to regulatory and test data.

The TRIPS Agreement, Article 39.3 specifies:

Members, when requiring, as a condition of approving the marketing of pharmaceutical or of agricultural chemical products which utilize new chemical entities, the submission of undisclosed test or other data, the origination of which involves a considerable effort, shall protect such data against unfair commercial use. In addition, Members shall protect such data against disclosure, except where necessary to protect the public, or unless steps are taken to ensure that the data are protected against unfair commercial use.

Many developed countries and a number of developing countries have operationalized this obligation via terms of protection against disclosure plus provision of a period of data exclusivity, during which the originators of the test data have exclusive reference to the data. The terms vary widely. Some countries also protect data submitted to obtain approval for new uses (as opposed to entirely new products). Moreover, a number of countries differentiate the treatment of data for pharmaceutical products from that for agricultural chemicals, whereby protection for agricultural chemical test data may be more readily available in some cases. As a result of this variation and the lack of a standard minimum duration of protection, innovators in these product areas face an environment whereby the protection of undisclosed test data and other data is subject to uncertainty. This may affect their ability to conduct business in certain markets, complicating their market access terms and making their activity vulnerable to competition in a manner that varies arbitrarily from country-to-country.

Thus, in terms of market access for latest generation products and incentives to produce additional

²²

With respect to non-compete provisions in labour contracts, currently the permissible terms of such provisions vary widely by country. Some countries do not recognise such provisions, others impose limitations on their geographic validity or duration, or they may require that the employee be compensated.

products tailored to the needs of specific markets that may not currently be well served, there may be an advantage from negotiation of a minimum international term of data protection and data exclusivity. Such a term of protection might include a transition period taking into account the level of development of the market concerned.

5. Conclusions

44. The current variability of protection of trade secrets increases the complexity of management of business activities and may discourage some investment in knowledge development and diffusion. Thus, the six recommendations presented above aim to flesh out approaches to harmonisation of key dimensions of trade secret protection that are not currently specified in multilateral agreements at the WTO. In addition, they could be structured to include flexibility such as transition periods for developing countries and an exemption for LDCs. They aim at assuring minimum standards of protection, while maintaining balance. The objective is to improve the ease of doing business internationally with respect to trade secrets, while reinforcing the incentives for further innovation and diffusion of knowledge embodied in trade secrets. Moreover, in taking these actions, the recommendations seek to ensure labour market flexibility and employee mobility.

45. In many countries, stakeholders now recognise the need for further reform in the area of trade secrets. Such reforms might include institution of effective protection in countries that lack it now (with transition periods, perhaps), harmonisation of key aspects across countries that now have divergent approaches, and establishment of minimum norms for protection. While uniformity in legal systems is not feasible or even necessary for protection of trade secrets, some alignment among WTO members may be achieved with benefits for a broad range of stakeholders.

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Figure 1. Trade Secrets Protection Index, by economy and index component, 2010

