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# The Adoption of Intellectual Property Standards Beyond TRIPS – Is it a Misguided Legal and Economic Obsession by Developing Countries?

FERRIS K. NESHEIWAT\*

## I. INTRODUCTION

This paper looks at the effect intellectual property standards have had on technology transfers in Jordan, in light of the implementation of stricter intellectual property standards with the adoption of the Agreement on Trade Related Aspects of Intellectual Property (TRIPS)<sup>1</sup> and “TRIPS-plus” standards. Both the TRIPS and TRIPS-plus standards ushered in new legal requirements, which were justified and marketed under the theoretical assumption that greater protections of intellectual property rights are essential to both technology transfer and

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1. The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) is an international agreement administered by the World Trade Organization (WTO) that sets minimum standards for many forms of intellectual property regulation. The TRIPS Agreement is in Annex 1C of the Marrakesh Agreement Establishing the World Trade Organization, signed in Marrakesh, Morocco on April 15, 1994. Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 33 I.L.M. 1125. TRIPS was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) in 1994. Agreement On Trade-Related Aspects of Intellectual Property Rights, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 1C, 33 I.L.M. 1125 [hereinafter Annex 1C]. Standards that exceed the intellectual property protections and requirements outlined in TRIPS are commonly referred to as “TRIPS-plus standards.” Tanya M. Woods, *Working Toward Spontaneous Copyright Licensing: A Simple Solution for a Complex Problem*, 11 VAND. J. ENT & TECH L. 1141, 1159 (2009).

investment promotion.<sup>2</sup> This paper intends to examine the level of technology transfer and the flow of intellectual property-related foreign direct investment into Jordan ten years after Jordan's accession to the World Trade Organization treaty (WTO)<sup>3</sup> and signing of the Jordan-US Free Trade Agreement (JUSFTA).<sup>3</sup>

With little public input and with its legislative branch dissolved by Royal decree, Jordan ratified the law acceding to the WTO treaty in the year 2000,<sup>4</sup> subsequently signed a Free Trade Agreement with the United States,<sup>5</sup> and in 1997 signed the Association Agreement with the European Union, which was entered into force in 2002.<sup>6</sup> I use the term "post-WTO" to indicate the period of time after the WTO accession, but without exclusion of the other bilateral treaties signed since that time or shortly before then, especially the U.S. and European instruments. The term describes the wave of legislative and legal reforms that were meant to bring about compliance with the international standards in respective fields including intellectual property rights. Jordan, in general, and its pharmaceutical industry, in particular, both make for compelling study subjects because Jordan is one of the first Middle East and North Africa (MENA) countries to join the WTO, and only the second country to sign a Free Trade Agreement (FTA) with the United States after Israel.<sup>7</sup>

2. See *Understanding the WTO, Intellectual Property: Protection and Enforcement*, WORLD TRADE ORG., [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/agrm7\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm) (last visited Nov. 6, 2010).

3. Jordan acceded to the WTO on April 11, 2000. *Jordan*, EUROPEAN COMM'N, <http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/jordan> (last visited Jan. 3, 2011) [hereinafter, EUROPEAN COMMISSION]. The JUSFTA was signed on October 24, 2000. Agreement Between the United States of America and the Hashemite Kingdom of Jordan on the Establishment of a Free Trade Area, U.S.-Jordan, art. 19, Oct. 24, 2000, 41 I.L.M. 63 [hereinafter U.S.-Jordan Free Trade Agreement]. It was entered into force on December 17, 2001. *2010 Investment Climate Statement, Jordan*, BUREAU OF ECON., ENERGY AND BUS. AFFAIRS, U.S. DEP'T OF STATE, <http://www.state.gov/e/eeb/rls/othr/ics/2010/138090.htm> [hereinafter *Jordan 2010 Investment Climate Statement*].

4. EUROPEAN COMMISSION, *supra* note 3.

5. Marwa Al Nasa'a et al., *The Jordan-U.S. Free Trade Agreement: Eight Years Later* 4 (Mar. 21, 2008) (unpublished policy paper, University of Michigan, Gerald R. Ford School of Public Policy), <http://www.umich.edu/~ipolicy/Policy%20Papers/jordanusfta.pdf>.

6. EUROPEAN COMMISSION, *supra* note 3.

7. Al Nasa'a et al., *supra* note 5, at 22, app. A. In 1985, President Ronald Reagan signed the U.S.-Israel Free Trade Agreement (FTA), the first FTA into which the United States entered. Agreement on the Establishment of a Free Trade Area Between the Government of Israel and the Government of the United States of America, U.S.-Isr., art.

The Jordanian pharmaceutical sector is a net exporter of pharmaceutical products.<sup>8</sup> This indicates a robust industry and makes it that much more interesting to gauge the effects garnered from the introduction of TRIPS and TRIPS-plus intellectual property standards. The examination of these effects considers the soundness of those standards as essential for the establishment of an open and competitive economy, conducive to development and prosperity, especially in helping make Jordan a more Foreign Direct Investment (FDI)-friendly place. Proponents of FDI imply that FDI is necessarily good and beneficial,<sup>9</sup> especially to countries like Jordan, with its history of poverty and dependence on foreign aid. This, however, is far from a settled point and many economists have argued against it and addressed the serious limitations of FDI in furthering the economic development of the recipient country.<sup>10</sup>

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22, Apr. 22, 1985, 24 I.L.M. 654. The U.S.-Jordan FTA entered into force on December 17, 2001. *Jordan 2010 Investment Climate Statement*, *supra* note 3. The JUSFTA, however, is the first free trade agreement entered into by the United States that includes provisions addressing environment (Article 5), labor (Article 6), and electronic commerce (Article 7). U.S.-Jordan Free Trade Agreement, *supra* note 3.

8. GLOBAL INVESTMENT HOUSE, JORDAN PHARMACEUTICAL SECTOR: THE HEALING TOUCH OF THE DEAD SEA 1 (June 2007), <http://www.globalinv.net/research/Jordan-Pharmaceutical-Sector-062007.pdf>.

9. *See id.*

10. *See* Prakash Loungani & Assaf Razin, *How Beneficial is Foreign Direct Investment for Developing Countries?*, FIN. & DEV., (June 2001), <http://www.imf.org/external/pubs/ft/fandd/2001/06/loungani.htm#author> (concluding that although there is substantial evidence that FDI benefits host countries, a country should assess its potential impact carefully and realistically); Anil Kumar, *Does Foreign Direct Investment Help Emerging Economies?*, ECON. LETTER, (Federal Reserve Bank of Dallas, Dallas, Tex.), Jan. 2007, 7, <http://www.dallasfed.org/research/eclett/2007/el0701.pdf>. (This U.S. Federal Reserve Publication cautions that “[t]oo much FDI may not be beneficial. Through ownership and control of domestic companies, foreign firms learn more about the host country’s productivity, and they could overinvest, at the expense of domestic producers. There is a possibility that the most solid firms will be financed through FDI, leaving domestic investors stuck with low-productivity firms. Such ‘adverse selection’ isn’t the best economic outcome.”); Andrew Sumner, *Is Foreign Direct Investment Good for the Poor? A Review and Stocktake*, 15 DEV. IN PRAC. 269, 269 (2005) (noting that the liberalization of FDI does not necessarily have economic benefits for a country); Ricardo Hausmann & Eduardo Fernández-Arias, *Foreign Direct Investment: Good Cholesterol?* 27 (Inter Am. Dev. Bank and Inter-Am. Inv. Corp., Working Paper No. 417, 2000) (concluding, *inter alia*, that policies should not be adopted to promote FDI at the expense of other types of capital flows. Furthermore, “[o]n the contrary, the rise of FDI is an indication that markets are working poorly, that institutions are inadequate and that risks are high. Residents are selling their companies because they do not have the markets and institutions that allow them to grow.”); Tam Bang Vu, Byron Gangnes, & Ilan Noy, *Is Foreign Direct Investment Good for Growth? Evidence from Sectoral Analysis of China and Vietnam*, 13 J. OF THE ASIA PACIFIC ECON. 542, 542 (2008) (finding that almost all

But that is not this paper's main point. We will take the allegations about the positive results of FDI at face value and instead focus on the allegation that higher intellectual property standards will result in the promised increase in FDI levels.<sup>11</sup> This paper shows that there is little, if any, relationship between FDI and intellectual property standards, and that numbers constantly used to prop up such a connection for Jordan are misused and cartoon-like in their simplicity.

Part II of this paper looks at the forces and considerations that led to the adoption of new intellectual property rules as a result of the new legal obligations presented by international agreements. Various sections within Part II discuss some of the general terms for each of the agreements, but focus particularly on the elements affecting intellectual property rights. Part III specifically discusses the three most important agreements, namely the WTO accession agreement,<sup>12</sup> the Jordan-U.S. FTA agreement,<sup>13</sup> and the Jordanian-European Association Agreement (JEUAA).<sup>14</sup> Part IV juxtaposes the framework presented in part one and the new legal requirements outlined in part two onto the Jordanian pharmaceutical sector. This portion briefly describes the industry and the relationship of intellectual property rights and economic development from the technology transfer agreements' and relevant new intellectual property laws' viewpoints. Part V discusses the effect of intellectual property standards on the economic development for Jordan. The various sections of Part V examine the technological sensitivity of Jordan's exports and imports, technology transfer in the pharmaceutical sector, foreign direct investment and the need for an intellectual property strategy.

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the FDI beneficial impact was limited to industrial sector with other sectors appearing to gain very little growth benefit from sector-specific FDI).

11. See, e.g., Keith Maskus & Guifang Yang, *Intellectual Property Rights, Foreign Direct Investment and Competition Issues in Developing Countries*, 19 INT'L J. TECH. MGMT 22, 22 (2000).

12. Working Party Report, *Report of the Working Party on the Accession of Jordan*, ¶¶ 191-230, WT/ACC/JOR/33 (Dec. 3, 1999) [hereinafter *Jordan WTO Accession Report*].

13. U.S.-Jordan Free Trade Agreement, *supra* note 3.

14. Euro-Mediterranean Agreement tit. VIII, art. 90, ¶ 1, May 15, 2002, 2002 O.J. (L 129) 3 [hereinafter *Euro-Mediterranean Agreement*].

## II. OVERVIEW

Jordan has, since the ascension of the current monarch, linked its development goals and reform agenda inexorably to the new global economic order, which on the trade side is represented by embracing globalization and open borders.<sup>15</sup> This is not to say that this choice was popularly sanctioned. To the contrary, two important treaties, which have saddled Jordan with the most significant trade and commercial requirements and imposed substantial changes to the legal codes and intellectual property laws, were passed at a time when the Jordanian Parliament was dissolved.<sup>16</sup> The booming years of the first decade of the twenty-first century seem to have dampened any perceived opposition to that economic policy agenda, but the current economic downturn and the evident recessionary economic outlook are giving more credence to the contrarian's economic views.

One of the significant impacts of that economic approach was the adaptation of the international, Western standards of intellectual property protection.<sup>17</sup> Thus, patent protection periods, copyright protection scopes, trademark registration and categorization mechanisms, to name a few, were globally harmonized as they were adopted into national legislations.<sup>18</sup> The adaptation of those standards on a global level was undoubtedly based on an assumption that those standards work equally well for developed and developing countries.<sup>19</sup> The overhaul of the Jordanian legal framework governing intellectual property was a direct result of that line of thinking. Yet, the question as to what role the intellectual capital, and by extension the intellectual property standards, are playing in attracting FDI and transferring technology into Jordan has not been answered, even though these

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15. See, e.g., *id.*; U.S.-Jordan Free Trade Agreement, *supra* note 3.

16. The King dissolved the Jordanian Parliament in June 2001. *Jordan: Country Reports on Human Rights Practices*, BUREAU OF DEMOCRACY, HUMAN RIGHTS, AND LABOR, U.S. DEP'T OF STATE (Mar. 4, 2002), <http://www.state.gov/g/drl/rls/hrrpt/2001/nea/8266.htm>.

17. See, e.g., U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4; Euro-Mediterranean Agreement, *supra* note 14, tit. IV, art. 56.

18. See *id.*

19. See Samnang Chea & Hach Sok, *Cambodia's Accession to the WTO: 'Fast Track' Accession by a Least Developed Country*, WORLD TRADE ORG., [http://www.wto.org/english/res\\_e/booksp\\_e/casestudies\\_e/case8\\_e.htm](http://www.wto.org/english/res_e/booksp_e/casestudies_e/case8_e.htm) (last visited Nov. 6, 2010) (highlighting the commonly held high expectations and the pitfalls of developing countries' accession to the WTO).

incentives were key promises made in support for changing the intellectual property laws.<sup>20</sup> The simple-minded and generic remarks by the U.S. Trade Representative on the threat counterfeiting poses to global safety and security are blindly repeated by national officials,<sup>21</sup> who have neither determined if the measures being replaced have been given time to produce their promised effect, nor if the newer measures are in line with their country's economic needs and resources.

Jordanian officials, most notably the under secretary for Industry and Trade, consistently cite the adoption of modern intellectual property laws in Jordan as a prerequisite for foreign direct investment inflows into the Jordanian economy.<sup>22</sup> One of the most important gains, according to policy makers, will be creating a better image of the business environment in Jordan and generating more FDI, which are seen as solutions for many of the economic difficulties facing Jordan.<sup>23</sup> Legal and economic studies related to intellectual property protection in Jordan, however, are few, and the available data is more piece-meal structured than tied together in a meaningful way. Furthermore, Jordanian courts have a minimal exposure to intellectual property cases,<sup>24</sup> which speaks to the low level of impact it has on the economic activity in Jordan. Figure (1) shows the number of intellectual property cases decided by Jordanian courts from 2000 to 2008, the majority of which were trademark cases.<sup>25</sup>

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20. See *Jordan WTO Accession Report*, *supra* note 12, ¶¶ 163, 230.

21. See, e.g., Susan C. Schwab, U.S. Trade Representative, Remarks at the Congressional Caucus on Intellectual Property and Piracy Prevention (Oct. 23, 2007) (transcript available at [http://www.ustr.gov/sites/default/files/uploads/speeches/2007/asset\\_upload\\_file110\\_13428.pdf](http://www.ustr.gov/sites/default/files/uploads/speeches/2007/asset_upload_file110_13428.pdf)) (acknowledging the global problem that counterfeiting presents and announcing the intent to begin Anti-Counterfeiting Trade Agreement (ACTA) negotiations, but failing to provide reasons why past measures were insufficient and how ACTA will, in contrast, be effective).

22. See *Introduction*, THE HASHEMITE KINGDOM OF JORDAN MINISTRY OF INDUSTRY & TRADE, <http://www.mit.gov.jo/Default.aspx?tabid=384> (last visited Jan. 7, 2011) [hereinafter *Ministry of Industry & Trade Introduction*].

23. Yusuf Mansur, *Overcoming Barriers to Foreign Direct Investment in Jordan 1* (June 2008), [http://www.freetheworld.com/arab/Overcoming-Barriers\\_Foreign-Direct-Investment.pdf](http://www.freetheworld.com/arab/Overcoming-Barriers_Foreign-Direct-Investment.pdf).

24. For example, 277,063 cases were reviewed, out of which 225,625 were decided by First Instance courts in Jordan in 2008 (Annual Judicial Council Report 2008).

25. See *infra* Figure 1 (on file with author).

Figure (1): Number of intellectual property cases decided by Jordanian courts 2000-2008

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Cases	10	9	15	31	49	133	172	656	584

What the United States Trade Representative (USTR) fails to mention, and national politicians in Jordan seem to forget, is that the degree of foreign investments' sensitivity to those standards is very much influenced by the sensitivity of the particular investment itself to intellectual property. Jordan's economy is not intellectual property sensitive, and juxtaposing many of the factors discussed in this paper will show that almost all of the economies in the MENA region share the same features. As a result, TRIPS standards, which the USTR dismisses as minimal and no longer sufficient,<sup>26</sup> are actually more than sufficient to provide the necessary protections for whatever intellectual capital those economies need. The growing obsession in most advanced nations with international intellectual property standards as a prerequisite for foreign investments and economic prosperity should not be seen as a well-founded concern, but rather as a view held in the face of overwhelmingly contrary evidence.

This paper makes three points that are presented through the prism of Jordan, but are equally valid for other developing countries especially in the MENA region. First, it profiles the continued progression towards stricter intellectual property standards, which was influenced by multilateral and bilateral treaties and often done without a solid grasp of the value added by such progression. Second, it argues that concerns about the impact of intellectual property standards on direct foreign investment influx are, as an empirical matter, almost completely unfounded. Finally, it argues that the obsession with intellectual property standards for developing countries is not only wrong, but also dangerous, as it skews domestic policies and squanders their already limited resources.

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26. Schwab, *supra* note 21.



### III. PROGRESSION OF INTELLECTUAL PROPERTY RIGHTS IN JORDAN

Intellectual property standards in Jordan have become steadily stricter by virtue of Jordan's various international commitments.<sup>27</sup> Initially, Jordan's accession to the WTO raised Jordan's intellectual property standards to meet the WTO's TRIPS standards.<sup>28</sup> Later, the JUSFTA added more requirements,<sup>29</sup> and finally the JEUA brought Jordan into the "highest international standards" criteria.<sup>30</sup> A brief description of the components of each requirement and its effect on the intellectual property regulation environment in Jordan follows.

#### A. World Trade Organization

Jordan acceded to the WTO in April 2000,<sup>31</sup> with the expressed goal of enhancing trade and gaining access to global markets.<sup>32</sup> The most important rights and obligations arising from WTO membership pertain to the adoption of new practices and rules favorably affecting the security, predictability, and the transparency of trade.<sup>33</sup> There are also some specific rules that must be adopted wholesale and are not open for bilateral negotiations, except perhaps as to the rate of implementation.<sup>34</sup> The most important of these rules, for our purpose, are the TRIPS, which address the enforcement of intellectual property rights in the global framework and are billed as promoting technology

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27. See U.S. GOV'T ACCOUNTABILITY OFFICE [GAO], GAO-09-439, INTERNATIONAL TRADE: FOUR FREE TRADE AGREEMENTS GAO REVIEWED HAVE RESULTED IN COMMERCIAL BENEFITS, BUT CHALLENGES ON LABOR AND ENVIRONMENT REMAIN 85 (2009), <http://www.gao.gov/new.items/d09439.pdf> [hereinafter GAO REPORT].

28. See Trade Policy Review Body, *Trade Policy Review Jordan*, 54, WT/TPR/S/206 (Oct. 6, 2008) [hereinafter Trade Policy Review Body].

29. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4; see COMM'N ON INTELLECTUAL PROP. RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 163 (2002), [www.iprcommission.org/papers/pdfs/final\\_report/CIPRfullfinal.pdf](http://www.iprcommission.org/papers/pdfs/final_report/CIPRfullfinal.pdf).

30. See Euro-Mediterranean Agreement, *supra* note 14, art. 56.

31. EUROPEAN COMMISSION, *supra* note 3.

32. See *Economy and Trade, Overview*, EMBASSY OF THE HASHEMITE KINGDOM OF JORDAN, <http://www.jordanembassy.de/economy%20and%20trade.htm> (last visited Nov. 7, 2010).

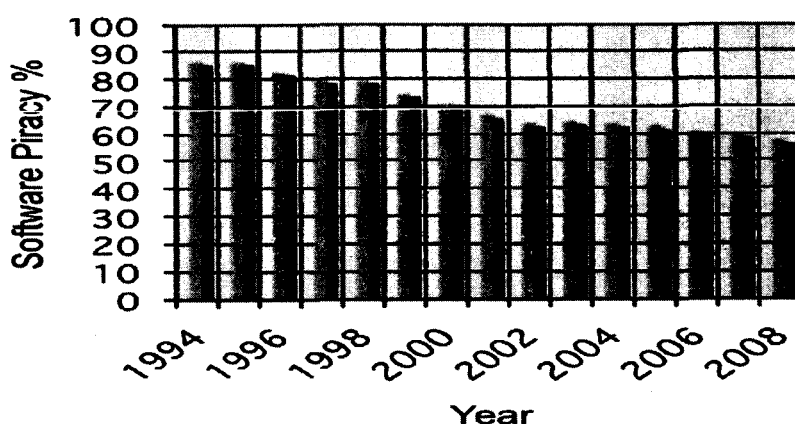
33. *Principles of the Trading System*, WORLD TRADE ORG., [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact2\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm) (last visited Nov. 7, 2010).

34. Annex 1C, *supra* note 1, art. 1.

transfer and the diffusion of know-how.<sup>35</sup>

Prior to joining the WTO, Jordan's individual collaboration with Western companies existed and introduced incremental additions to Jordan's technical inventory, but it was done with either obsolete or unsophisticated technologies.<sup>36</sup> The WTO-TRIPS accession changed that previous situation and theoretically made possible new options and realities.<sup>37</sup> The significance of intellectual property rights in Jordan's commercial settings changed and became more pronounced. Additionally, while piracy did not disappear, it decreased.<sup>38</sup>

Figure (2): Software Piracy in Jordan 1994-2008



Enforcement became more aggressive and the government began using intellectual property as a tool to show its good intention to any potential investors.<sup>39</sup> In conjunction with negotiations to join the WTO, Jordan engaged in another track of economic relations with the United States and the European Union, leading to bilateral trade agreements that brought higher standards of intellectual property protection than those

35. See *id.* arts. 66, 67.

36. See Rasha Laswi, *Effect of Technology Transfer Contracts on the Growth of the Pharmaceutical Sector (Jordan-Case Study)* 39-41 (2002) (unpublished M.A. dissertation, Jordan Institute of Diplomacy) (on file with author).

37. See *id.* at 44.

38. Judicial Council, *التقرير السنوي لأعمال المحاكم لسنة 2008* [Annual Report of the Work of the Courts for the Year 2008] (2008), <http://www.jc.jo> (Jordan).

39. Trade Policy Review Body, *supra* note 28, at 13.

contemplated under WTO's TRIPS.<sup>40</sup>

WTO accession specifically affected the legislative framework of intellectual property rights.<sup>41</sup> Legislation was amended and redrafted, including the "[l]aws of Standards and Metrology, Agriculture, National Production Protection, General Sales Tax, Customs, and Import and Export . . . as well as non-Jordanians' Investments Regulations."<sup>42</sup>

Almost a decade after those changes took place, there remains no clear answer as to the effect of those measures on economic liberalization by examining the effect they had on the challenges facing the Jordanian economy such as poverty, unemployment, and inflation, as well as the current global financial crisis. The official unemployment numbers barely budged over the past ten years, remaining around thirteen percent, with additional unofficial estimates showing considerably higher numbers.<sup>43</sup> Furthermore, Jordan continues to rank in the top global recipients of aid per capita.<sup>44</sup>

So, while Jordan seems to have succeeded in opening its borders to unconditional global trade, it is not clear that the average citizen has felt any direct (positive) impact from the ensuing trade liberalization. Arguably, the liberalization of the economy and the lifting of many of the elements of the social protection network, such as subsidies to fuel, have exposed the underprivileged without necessarily providing them with the means to lift themselves out of their poor circumstances.

### *B. Jordan-United States Free Trade Agreement (JUSFTA)*

The JUSFTA, signed on October 24, 2000<sup>45</sup> and entered into

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40. See U.S.-Jordan Free Trade Agreement, *supra* note 3, pmbl.; see also Euro-Mediterranean Agreement, *supra* note 14, art. 56.

41. See *Jordan and the World Trade Organization*, MINISTRY OF INDUS. & TRADE, <http://www.mit.gov.jo/Default.aspx?tabid=810> (last visited Nov. 7, 2010).

42. *Id.*

43. GAO REPORT, *supra* note 27, at 83.

44. Tanweer Akram, *The International Foreign Aid Regime: Who Gets Foreign Aid and How Much?*, 35 APPLIED ECON. 1351, 1353 (2003). One of the main criticisms leveled against the official methodology of carrying out the unemployment surveys, and one of the main reasons why official and unofficial numbers are disparate, has been that the main definition of unemployment excludes persons who want to work but are not actively seeking work because they feel that no work is available or because they face discrimination or social and/or cultural barriers.

45. Marwa Al Nasa'a et al., *supra* note 5, at 4.

force in December 2001<sup>46</sup> (less than two years after the accession to the WTO), clearly states that its intellectual property requirements are merely the minimum required,<sup>47</sup> but each state is strongly encouraged to commit to other regulations.<sup>48</sup>

The current minimal requirements mandate that each party shall include provisions from the following: Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks (1999),<sup>49</sup> the International Convention of the Protection of New Varieties of Plants (UPOV Convention) (1991),<sup>50</sup> the World Intellectual Property Organization (WIPO) Copyright Treaty (WCT) (1996),<sup>51</sup> and the WIPO Performance and Phonograms Treaty (WPPT) (1996).<sup>52</sup> Additionally, each party is required to use its best efforts to ratify the Patent Cooperation Treaty (PCT) (1984) and the Madrid Agreement Concerning the

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46. *Justice for All: The Struggle for Worker Rights in Jordan*, AM. CTR. FOR INT'L LABOR SOLIDARITY, 48 (Dec. 2005), <http://www.solidaritycenter.org/files/JordanFinal.pdf> [hereinafter *Justice for All*].

47. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 1.

48. *See id.* art. 4, ¶ 2. The other regulations include the Patent Cooperation Treaty and the Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks. *Id.*

49. *Id.* art. 4, ¶ 1(a); World Intellectual Property Organization, *Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks*, at 4, WIPO Doc. 833(E) (Sept. 29, 2010) (addressing the definition of well-known marks and the various factors that will cause a trademark to become well-known, and setting parameters for their effective protection).

50. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 1(b); International Convention of the Protection of New Varieties of Plants, Ger.-Neth.-U.K., Dec. 2, 1961, 815 U.N.T.S. 89 (revised Nov. 10, 1972, Oct. 23, 1978 and Mar. 19, 1991) (providing recognition of the rights of plant breeders).

51. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 1(c); World Intellectual Property Organization (WIPO) Copyright Treaty, Dec. 20, 1996, 36 I.L.M. 65 (1997) [hereinafter Copyright Treaty]. The treaty provides additional protections for copyright deemed necessary due to advances in information on databases and rights of rental and distribution. Jordan acceded to this treaty on January 27, 2004 and the treaty came into force on April 27, 2004. *WIPO Copyright Treaty, Jordan*, WORLD INTELLECTUAL PROP. ORG., [http://www.wipo.int/treaties/en/Remarks.jsp?cnty\\_id=1687C](http://www.wipo.int/treaties/en/Remarks.jsp?cnty_id=1687C) (last visited Jan. 3, 2011).

52. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 1(d); World Intellectual Property Organization (WIPO) Performance and Phonograms Treaty, Dec. 20, 1996, 36 I.L.M. 76 (1997) [hereinafter Performance and Phonograms Treaty]. The treaty deals with the intellectual property rights of two types of beneficiaries, namely performers and producers of phonograms. Jordan acceded to this treaty on February 24, 2004 and the treaty came into force on May 24, 2004. *WIPO Performances and Phonograms Treaty, Jordan*, WORLD INTELLECTUAL PROP. ORG., [http://www.wipo.int/treaties/en/Remarks.jsp?cnty\\_id=1713C](http://www.wipo.int/treaties/en/Remarks.jsp?cnty_id=1713C) (last visited Jan. 3, 2011).

International Registration of Marks (1989).<sup>53</sup>

Article 4 of the JUSFTA contains information about intellectual property rights and is the longest, most detailed section of the treaty.<sup>54</sup> Below is a brief description of the new intellectual property requirements under the JUSFTA, all of which exceed those required under TRIPS and are therefore sometimes referred to as "TRIPS-plus" standards.<sup>55</sup>

### 1. Trademarks and Geographical Indications

The JUSFTA presented a definition of trademarks that encompassed geographical indications,<sup>56</sup> even though under the TRIPS agreement, trademarks and geographical indicators are treated separately.<sup>57</sup>

The JUSFTA removed the previous requirement that a trademark must be registered in Jordan for the trademark holder to assert any rights under the trademark,<sup>58</sup> and Jordan's copyright laws raised the maximum criminal fine for an intellectual property violation to JD 3000 (\$4250).<sup>59</sup>

### 2. Copyrights and Related Rights

The JUSFTA added significant requirements and thus higher standards of copyright protection, including the following:

- (1) giving performers and producers of phonograms the right to prohibit unauthorized broadcasting of their works;<sup>60</sup>
- (2) giving right holders control over allowing or denying the importation of protected works, whether pirated or authorized<sup>61</sup>;
- (3) asking signatories to combat technology intended to circumvent the technological measures taken by performers or

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53. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 2.

54. *Id.* art. 4.

55. Woods, *supra* note 1, at 1159.

56. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 6.

57. See Annex 1C, *supra* note 1, arts. 15-24.

58. See U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 9.

59. Copyright Law No. 22 of 1992, art. 51 (Jordan).

60. See U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 12.

61. See *id.* art. 4, ¶ 11 ("Each Party shall provide to authors and their successors in interest, to performers and to producers of phonograms the exclusive right to authorize or prohibit the importation into each Party's territory of copies of works and phonograms, even where such copies were made with the authorization of the author, performer or producer of the phonogram or a successor in interest.").

producers in exercising their rights under Article 11 of the WCT<sup>62</sup> and Article 18 of the WPPT<sup>63</sup>;

(4) asking governmental agencies to “use only computer software authorized for intended use.” Both parties must “actively regulate the acquisition and management of software for government use”<sup>64</sup>;

(5) requiring that “statutory maximum fines are sufficiently high to deter future acts of infringement with a policy of removing the monetary incentive to the infringer . . . .”<sup>65</sup>

As a result of these standards, criminal fines were increased to a maximum of JD 3000,<sup>66</sup> provisions were added to protect performers,<sup>67</sup> and any technological or procedural means designed to bypass anti-copying measures were prohibited.<sup>68</sup>

### 3. Patents

Patent Law No. 32 was enacted in 1999 to comply with the TRIPS obligations.<sup>69</sup> In 2001, additional new patent regulations were introduced to help facilitate the process of filing for a

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62. See Copyright Treaty, *supra* note 51, art. 11 (“Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by authors in connection with the exercise of their rights under this Treaty or the Berne Convention and that restrict acts, in respect of their works, which are not authorized by the authors concerned or permitted by law.”).

63. See U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 13; see also Performance and Phonograms Treaty, *supra* note 52, art. 18 (“Contracting Parties shall provide adequate legal protection and effective legal remedies against the circumvention of effective technological measures that are used by performers or producers of phonograms in connection with the exercise of their rights under this Treaty and that restrict acts, in respect of their performances or phonograms, which are not authorized by the performers or the producers of phonograms concerned or permitted by law.”).

64. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 15.

65. *Id.* art. 4, ¶ 25.

66. Copyright Law No. 22 of 1992, art. 51 (Jordan).

67. See, e.g., *id.* art. 23 (preventing others from establishing a non-established performance, as well as copying, broadcasting, or conveying a performance to the public without the performer’s approval).

68. See *id.* arts. 17, 23. The term “anti-copying” refers to technological measures that are used by authors, performers, and producers of phonograms in connection with the exercise of their rights, which restrict unauthorized acts in respect of their works, performances, and phonograms. Séverine Dusolliert et al., *Copyright and Access to Information in the Digital Environment*, COPYRIGHT BULLETIN, Vol. XXXIV, No. 4, 19 (2000), <http://unesdoc.unesco.org/images/0012/001238/123894eo.pdf>.

69. Patent Law No. 32 of 1999 (Jordan)

patent.<sup>70</sup> While the 1999 law was in compliance with the TRIPS agreement obligations,<sup>71</sup> the JUSFTA introduced several other TRIPS-plus requirements for patents and regulated products, the main obligations being:

(1) for Jordan to “make available an extension of the patent term to compensate the patent owner for unreasonable curtailment of the patent term as a result of the marketing approval process”;<sup>72</sup>

(2) for Jordan to commit to joining the Patent Cooperation Treaty (PCT);<sup>73</sup>

(3) for Jordan “to clarify that the exclusion from patent protection of ‘mathematical methods’ in Article 4(B) of Jordan’s Patent Law does not include such ‘methods’ as business methods or computer-related inventions.”<sup>74</sup> In light of the above commitment, the Jordan Patent Office is now accepting business methods patent applications.

#### 4. Compulsory Licensing

Compulsory licensing gives the government the authority to use a patent without the patent holder’s authorization in return for just compensation.<sup>75</sup> The adoption of TRIPS, while subsequently addressed under JUSFTA, streamlined the language governing such processes in Jordanian patent law.<sup>76</sup>

Generally, compulsory licensing requirements went through

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70. See Patent Regulation No. 97 of 2001 (Jordan). This regulation was issued pursuant to Article 38 of Patent Law No. 32. See Patent Law No. 32 of 1999, art. 38.

71. Tawfiq Tabbaa, *Update on Compliance with Intellectual Property Rights in Jordan*, U.S. AGENCY FOR INT’L DEV. (USAID), 3 (Feb. 14, 2007), [http://pdf.usaid.gov/pdf\\_docs/PNADM871.pdf](http://pdf.usaid.gov/pdf_docs/PNADM871.pdf).

72. U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 23.

73. See *id.* art. 4, ¶ 2. For more detailed information regarding the PCT, see Patent Cooperation Treaty, June 19, 1970, 28 U.S.T. 7645, 1160 U.N.T.S. 231 [hereinafter PCT]. Jordan has met this requirement. *Intellectual Property Law*, JORDAN INV. BD., <http://www.jordaninvestment.com/BusinessandInvestment/Taxation/IntellectualPropertyLaw/tabid/116/language/en-US/Default.aspx> (last visited Jan. 3, 2011).

74. Memorandum of Understanding on Issues Related to the Protection of Intellectual Property Rights Under the Agreement Between the United States and Jordan on the Establishment of a Free Trade Area, ¶ 5 (Oct. 24, 2000), [http://www.ustr.gov/sites/default/files/uploads/agreements/fta/jordan/asset\\_upload\\_file120\\_8462.pdf](http://www.ustr.gov/sites/default/files/uploads/agreements/fta/jordan/asset_upload_file120_8462.pdf).

75. See Patent Law No. 32 of 1999, arts. 22, 23.

76. See *id.*

three distinct phases. In the pre-TRIPS period, the Jordanian patent law lacked clear procedures for compulsory licenses and did not provide legal and financial guarantees for the right holder under compulsory licensing. After the adoption of TRIPS, however, compulsory licensing requirements were amended into what can be described as the TRIPS phase, which allowed for financial compensation for the right holder and restricted compulsory licensing to the following instances:

A - For relevant government departments or third parties licensed by such departments to use the patent, if such use is necessary for national security, emergency situations, or for public non-commercial benefit, provided that the patentee is notified as soon as practicable;

B - If the patentee fails to exploit the patent, or if exploitation thereof is insufficient, prior to the lapse of three years from the date of granting the patent, or four years from the date of filing the patent application, whichever period lapses later;

C - If it is decided judicially or administratively that the Patentee practices his rights in a manner that deters third parties from fair competition.<sup>77</sup>

Additionally, under TRIPS, a compulsory license should aim to meet the local needs of the Jordanian market, and the right holder shall receive just compensation commensurate with the economic value of the invention.<sup>78</sup> As a final check on any issued compulsory licenses, the Minister of Industry and Trade can cancel

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77. *Id.* art 22. The requirement in the first section should not be confused with the national security exception to patenting, which grants the government the authority to deny a patent and keep the invention secret if it threatens the national security of the country. *See, e.g.,* Invention Secrecy Act of 1951, 35 U.S.C. § 181 (2006) (providing that “[i]f . . . the publication or disclosure of the invention . . . would be detrimental to the national security, the Atomic Energy Commission, the Secretary of a Defense Department, or such other chief officer shall notify the Commissioner of Patents and the Commissioner of Patents shall order that the invention be kept secret and shall withhold the publication of the application or the grant of a patent for such period as the national interest requires . . .”). Unlike the United States, however, Jordan does not have such a provision in its patent law.

78. *See* Patent Law No. 32 of 1999, art. 23. Article 23 also states that a compulsory license should meet the following criteria: (1) that each application must be decided separately; (2) that attempts to obtain a license from the patent owner failed; (3) that the license should be limited in duration and scope; (4) that the compulsory license cannot be exclusive; and (5) that the compulsory license is non-assignable. *Id.*



any issued compulsory license with or without a request from the patent owner,<sup>79</sup> and all final compulsory license decisions are subject to judicial review by the Jordanian High Court of Justice.<sup>80</sup>

The third phase of compulsory licensing development occurred with the adoption of the JUSFTA, in what can be termed as the "JUSFTA phase." During this phase, compulsory licensing—referred to by the JUSFTA as "unauthorized use"—was restricted to three specific circumstances similar to those instances adopted during the post-TRIPS phase: (1) cases remedying a practice determined to be anti-competitive by a judicial or administrative process; (2) cases of public non-commercial use, or cases of "national emergency or other circumstances of extreme urgency, provided that such use is limited to use by government entities or legal entities acting under the authority of a government"; or (3) cases failing to meet working requirements, "provided that importation shall constitute working."<sup>81</sup>

The JUSFTA goes further to state that unauthorized use can only be "[w]here the law of [Jordan] allows for such use,"<sup>82</sup> thus imposing requirements for explicit permission under the law, which already exists, but also clearly suggesting non-objection to the removal of any exception for compulsory licensing. This is the only instance under the JUSFTA where there is consent for the

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79. *See id.* art. 24.

80. *See id.* art. 26. The origins of the Supreme Administrative Court lie in Article 100 of the Constitution, which calls for the creation of courts and specifically mentions a "High Court of Justice" by name. THE CONSTITUTION OF THE HASHEMITE KINGDOM OF JORDAN Jan. 1, 1952, art. 100. Pursuant to that constitutional mandate, the first law organizing courts was issued in 1952. Court Formation Law No. 26 of 1952 (Jordan). It, however, did not include a designation for a Supreme Court. *Id.* This constitutional oversight was rectified when the law was amended by Court Formation Law No. 17, which stated in Article 9 that the Cassation Court will exercise its role as a final arbiter for judicial opinions in its capacity as a Cassation Court and for administrative opinions in its capacity as a Supreme Court. Court Formation Law No. 17 of 1965, art. 9 (Jordan). That dual-hat anomaly continued until the enactment of Court Formation Law No. 12 in 1989, which provided for the creation of a separate court named the Supreme Administrative Court, under Supreme Administrative Law No. 12. Supreme Administrative Court Law No. 12 of 1992 (Jordan). The Supreme Administrative Court's jurisdiction over final copyright, trademark, and patent administrative decisions is based on Article 9 of the Supreme Administrative Court Law No. 12, giving the court jurisdiction over the appeal of final administrative decisions issued by governmental agencies. Supreme Administrative Court Law No. 12 of 1992, art. 9.

81. *See* U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 20.

82. *Id.*

removal of a preexisting right granted under Jordanian law. This speaks volumes about the effect that big corporations have on the drafting of such language in the United States, where any language that allows for the use of rights without licensing, even if for national emergency and humanitarian reasons (as in the case of compulsory licensing), is frowned upon.

### *C. The Jordanian – European Association Agreement*

The European Union signed an Association Agreement with Jordan on November 24, 1997. The Jordanian Parliament ratified the Association Agreement in September of 1999, and it was entered into force on May 1, 2002.<sup>83</sup> While the intellectual property components of the JEUA are not as detailed as those of TRIPS or Article 4 of the JUSFTA, they are nonetheless the most sweeping. Initially, the JEUA presents several requirements for Jordan to fulfill in the area of intellectual property, including compliance with: the Bern Convention for the protection of literary and artistic works; the Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations; the Nice Agreement concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks; the Madrid Agreement concerning the International Registration of Marks; the Protocol relating to the Madrid Agreement concerning the International Registration of Marks; the Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure; and the International Convention for Protection of New Varieties of Plants (UPOV).<sup>84</sup>

Furthermore, the JEUA requires Jordan to join the Patent Cooperation Treaty within seven years of the entry into force of the Agreement,<sup>85</sup> echoing a similar request found in the JUSFTA.<sup>86</sup> The most sweeping language of the JEUA is in Article 56, which states “the Parties shall grant and ensure adequate and effective

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83. Jordan Econ. & Commercial Bureau, *Agreements*, [http://www.jordanecb.org/agreements\\_europe1.shtm](http://www.jordanecb.org/agreements_europe1.shtm) (last visited Nov. 14, 2010); see *Jordan-Euro Association Agreement*, JORDAN ECON. & COMMERCE BUREAU (2005), [http://www.jordanecb.org/agreements\\_europe1.shtm](http://www.jordanecb.org/agreements_europe1.shtm).

84. Euro-Mediterranean Agreement, *supra* note 14, Annex VII, ¶ 1.

85. *Id.* Annex VII, ¶ 2.

86. See U.S.-Jordan Free Trade Agreement, *supra* note 3, art. 4, ¶ 2.

protection of intellectual, industrial and commercial property rights in accordance with the *highest international standards*, including effective means of enforcing such rights.”<sup>87</sup>

The term “highest international standards” effectively requires Jordan to adopt the highest standards regardless of its suitability to its needs or circumstances, and places a requirement in perpetuity to upgrade and amend its intellectual property regulations to meet that requirement. This further assures that the JEUA’s language does not need to be amended to incorporate changes reflecting the “highest international standards,” because the Association Council can simply decide to make them binding on Jordan by having Jordan accede to the new agreements, or legislatively approve the new standards if it is already a party to the modified treaty.<sup>88</sup>

#### IV. EFFECT OF THE NEW INTELLECTUAL PROPERTY LEGAL FRAMEWORK ON THE PHARMACEUTICAL INDUSTRY

Of Jordan’s main exports, which includes garments, vegetables, phosphates, pharmaceuticals, potash, fertilizers, and transportation equipment,<sup>89</sup> only pharmaceuticals are truly sensitive to intellectual capital, and therefore warrant a closer examination of the effects of increasingly stricter intellectual property standards. Jordan’s small population triggers only a small domestic demand for pharmaceutical products, and therefore those domestically produced products’ best hope will always be foreign exports, especially for prosperous and well-developed countries.<sup>90</sup> The local market’s situation is further restricted by the presence of fourteen domestic pharmaceutical companies,

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87. Euro-Mediterranean Agreement, *supra* note 14, art. 56 (italics added).

88. *Id.* art. 90, ¶ 1 (“The Association Council shall consist of the members of the Council of the European Union and members of the Commission of the European Communities, on the one hand, and members of the Government of Jordan, on the other.”); *see id.* art. 94, ¶ 2 (stating that “decisions shall be binding on the Parties” and that they must “take the measures necessary to implement the decisions taken”).

89. CENT. BANK OF JORDAN, ANNUAL REPORT 68 (2008), <http://www.cbj.gov.jo/uploads/chapter4.pdf> [hereinafter ANNUAL REPORT 2008] (on file with the Loyola of Los Angeles International & Comparative Law Review).

90. *See* MICHAEL P. RYAN & JILLIAN SHANE BROOK, ESTABLISHING GLOBALLY COMPETITIVE PHARMACEUTICAL AND BIO-MEDICAL TECHNOLOGY INDUSTRIES IN JORDAN: ASSESSMENT OF BUSINESS STRATEGIES AND THE ENABLING ENVIRONMENT 3 (2004).

resulting in the reduction of profits due to intense competition.<sup>91</sup>

Historically, the pharmaceutical industry played an important role in the Jordanian economy and the labor market, growing to a total production of at least \$300 million in 2004,<sup>92</sup> up from \$185 million in 2003.<sup>93</sup> This stimulus was fueled mainly by exports, as Jordan's pharmaceutical sector is its second largest export industry.<sup>94</sup> That growth, however, has not been well developed. Seventy percent of Jordanian pharmaceutical exports are concentrated in only four countries, namely Saudi Arabia, Algeria, Sudan, and Lebanon.<sup>95</sup> These countries have historically have had weak intellectual property protection, which used to suit an industry that was almost completely built on unlicensed and generic drugs and now has switched to only generics.<sup>96</sup> Such concentration makes the whole industry extremely vulnerable to the shifts and swings caused by economic troubles or importation restrictions.<sup>97</sup> As Jordan is using the opening of its trade relations to bolster pharmaceutical exports, is there evidence that it is using the expanded legal framework for intellectual property to transfer

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91. See Francesca Sawalha, *Pharmaceutical Sector Rises to the Challenges of the Global Economy*, JORDAN TIMES (Oct. 18, 2001), <http://www.jordanembassyus.org/10182001004.htm>.

92. See *IP Reforms Catapult Jordan to Exporters' League*, PHARMABIZ (June 21, 2007), <http://www.pharmabiz.com/article/detnews.asp?articleid=39430&sectionid=50>; see also *The Right Prescription*, JORDAN BUSINESS MAGAZINE (Jan. 10, 2007), [http://www.jordan-business.net/magazine/index.php?option=com\\_content&task=view&id=77&Itemid=40](http://www.jordan-business.net/magazine/index.php?option=com_content&task=view&id=77&Itemid=40) [hereinafter *The Right Prescription*] (stating that the Jordanian government expected the pharmaceutical sector to reach \$1 billion by 2010).

93. *Id.* The Jordanian Association of Manufacturers of Pharmaceuticals and Medical Appliances (JAPM)—a voluntary non-profit association which has a member base of almost all pharmaceutical companies in Jordan—estimates that by 2010, the regional pharmaceutical industry in Jordan will reach around \$1 billion. *The Jordanian Association of Pharmaceutical Manufacturers Announces the Launch of the Center of Excellence*, AMEINFO.COM (Mar. 27, 2006, 08:44 AM), <http://www.ameinfo.com/81496.html>.

94. GLOBAL INVESTMENT HOUSE, *supra* note 8, at 5.

95. See *Drugmakers Working on the Study of Reasons Behind the Decline of Exports*, AL-ARAB AL YAWM (Oct. 25, 2009), [http://www.alarabalyawm.net/pages.php?news\\_id=190524](http://www.alarabalyawm.net/pages.php?news_id=190524).

96. See *Priority Watch Country: Jordan*, <http://www.cptech.org/ip/health/phrma/301-99/jordan.html> (last visited Nov. 16, 2010) (regarding the United States pharmaceutical industry's opinions on the matter and its advocacy for the inclusion of Jordan on the Priority Watch Country under Special 301).

97. See *Drugmakers Working on the Study of Reasons Behind the Decline of Exports*, *supra* note 95. This data, however, does not provide what dislocations caused such a decline and what specific countries suffered the most or the least.

the pharmaceutical technology to Jordan?

The core strategy of most pharmaceutical companies is to be the first to market generic medicine after a patent,<sup>98</sup> a strategy that should be greatly assisted by the adoption of the Bolar exemption. This exemption allows generic manufacturers to prepare production and regulatory procedures (without engaging in actual production or stockpiling) before patents expire, so that generic products can be ready for sale as soon as they do expire.<sup>99</sup>

If we look at the levels of research and development in gauging the level of technology transfer, the results are not promising, as the share of research and development within the industry is much lower than the international standard.<sup>100</sup> The Jordanian Ministry of Planning's National Competitiveness Team concluded that Jordanian pharmaceutical companies currently conduct research in only two areas: (1) formulation and stability and (2) bioequivalence.<sup>101</sup> Most leading multinational pharmaceutical companies, on the other hand, conduct research in five major areas: (1) formulation and stability; (2) bioequivalence; (3) clinical; (4) synthesis compound; and (5) toxicological.<sup>102</sup> It seems that the volume of investments in the Jordanian pharmaceutical sector, which is around \$400 million,<sup>103</sup> is too small for any major research and development effort.

Statistically-tested empirical research indicates that the technology transfer to the pharmaceutical sector was rather minimal until 2003, three years after the WTO accession.<sup>104</sup> Other evidence further points to heavy dependence on generics, with no

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98. See Janez Prašnikar & Tina Škerlj, *New Product Development Process and Time-to-Market in the Generic Pharmaceutical Industry*, 35 INDUS. MARKETING MGMT. 690, 690 (2006).

99. *Generic Medicines*, EURACTIV (Apr. 16, 2005), <http://www.euractiv.com/en/health/generic-medicines/article-117497>. In the European Union, a community-wide "Bolar exemption" was introduced in November 2005 by the pharmaceutical review. Previously, the work required to apply could only occur after the patent expired, which resulted in a delay of approximately two years. *Id.*

100. See *Pharmaceuticals Cluster*, JORDAN MINISTRY OF PLANNING NAT'L COMPETITIVENESS TEAM, <http://www.competitiveness.gov.jo/files/Pharmaceutical%20Cluster.pdf> (last visited Nov. 17, 2010).

101. *Id.*

102. *Id.*

103. *Health Systems Profile, Jordan*, 74, <http://gis.emro.who.int/HealthSystemObservatory/PDF/Jordan/Health%20service%20delivery.pdf> (last visited Jan. 7, 2011).

104. See generally Laswi, *supra* note 36, at 46-50.

discernable effect of joint ventures on the growth of the assets, capital profit, sales, weighted assets, weighted capital, weighted profit, and weighted sales of the pharmaceutical industry.<sup>105</sup> This resulted despite the fact that surveyed pharmaceutical enterprises agree that joint ventures are the most important method of technology transfer.<sup>106</sup> Another review covering the period until early 2007 indicates that there are only three companies out of seventeen in the pharmaceutical sector with strategic alliances, licensing agreements, or production facilities outside Jordan.<sup>107</sup>

The recent global recession has temporarily shattered growth projections by the Jordanian pharmaceutical industry with an 11.4 percent decline in the 2009 export volume.<sup>108</sup> It seems that, with the Jordanian pharmaceutical industry's lack of a research and development base, the interest of major foreign pharmaceutical companies in the sector is mainly driven by the desire to benefit from its well-developed regional distribution networks and not necessarily the sector's products or patents. Given the sector's dependence on generics production and the limited technology transfer occurring under technology transfer contracts, one finds little evidence pointing to well defined benefits that would not have materialized for the sector had Jordan not acceded to the WTO or signed the JUSFTA. More specifically, the above discussion indicates that the Jordanian pharmaceutical sector's hopes of patented pharmaceuticals licensing, expansive research and development, technology transfer, and exportation to the western markets have yet to materialize.<sup>109</sup> The Jordanian consumer, however, should have benefited from TRIPS standards as it should have eliminated the presence of illegally counterfeited, and thus potentially lethal, pharmaceutical products.

It is important to point out, however, that this researcher did

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105. *Id.* at 95.

106. *Id.* at 96-97.

107. See *The Right Prescription*, *supra* note 92.

108. *Drugmakers Working on the Study of Reasons Behind the Decline of Exports*, *supra* note 95.

109. See, e.g., Asharq Al-Awsat, Comments by the Minister of Energy and Mineral Resources on the Projected Benefits to be Gained by the Jordanian Economy from Joining the WTO (2003), <http://www.aawsat.com/details.asp?section=6&issueno=9052&article=192022&feature=> (last visited Nov. 20, 2010) (recounting the comments by Minister of Energy and Mineral Resources Mohammed Batayneh on the projected benefits to be gained by the Jordanian economy from joining the WTO).

not find any evidence in the literature or in the data reviewed that there was a concerted effort to prevent the Jordanian pharmaceutical sector from achieving those goals. In the areas of licensing and technology transfer, for example, analysis indicates that the Jordanian pharmaceutical failure in that regard is a result of misguided assumptions that western pharmaceuticals will overlook economies of production to favor Jordanian companies.<sup>110</sup> As for exporting to the western markets, analysis indicates that Jordanian pharmaceuticals were slow to understand the importance of acquiring and implementing the regulatory and quality standards of the American Food and Drug Administration (FDA) and its EU counterpart,<sup>111</sup> without which pharmaceuticals are not allowed into those markets.<sup>112</sup>

#### V. INTELLECTUAL PROPERTY RIGHTS AND ECONOMIC DEVELOPMENT

While western corporations with little intellectual property capital have been venturing into less developed countries for centuries seeking cheaper labor and natural resources, corporations with significant intellectual property capital were much more reluctant to venture into such countries that do not offer sufficient intellectual property protections.<sup>113</sup> The overall effect of introducing western style intellectual property systems outside the West has been the expansion of the number of foreign territories into which western corporations with significant intellectual property capital can consider doing business.<sup>114</sup> This made large technological exporting companies the clear winners of the early phase of introduction of the TRIPS agreement.<sup>115</sup> The relationship between intellectual property rights systems and the other factors – termed modernization factors – such as GDP,

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110. See generally *The Right Prescription*, *supra* note 92.

111. See, e.g., *Pharmaceuticals Cluster*, *supra* note 100.

112. See *The FDA's Drug Review Process: Ensuring Drugs are Safe and Effective*, U.S. FOOD AND DRUG ADMIN., <http://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm> (last visited Jan. 3, 2011); *European Medicines Agency (EMA)*, EUROPA, [http://europa.eu/agencies/community\\_agencies/emea/index\\_en.htm](http://europa.eu/agencies/community_agencies/emea/index_en.htm) (last visited Jan. 3, 2011).

113. Evelyn Su, *The Winners and the Losers: The Agreement on the Trade-Related Aspects of Intellectual Property Rights and its Effects on Developing Countries*, 23 HOUS. J. INT'L L. 169, 208-09 (2000).

114. See *id.* at 214-15.

115. *Id.* at 214.

health care and electricity were explored by researchers,<sup>116</sup> but those factors *link* intellectual property rights relative to existing infrastructure-related aspects, which might, or might not be, *caused* by strong intellectual property rights systems.<sup>117</sup>

When measuring the economic effect of higher intellectual property standards and the effect of their level of compliance, one should consider if such an increase does in fact have an impact on the level of welfare, or what percentage of the FDI increase is actually contributed by intellectual property-sensitive products, goods, or services. FDI numbers, therefore, that are not broken down by segment and industry type provide little insight for a discussion on the impact of intellectual property standards on increasing FDI flows. This also means that while useful inferences can be extracted from comparative or multi-country studies, any actionable conclusions based on the economic impact of intellectual property standards must be country-specific.

In Jordan, the general discourse about the effect of intellectual property rights on economic development is negatively impacted by the factors mentioned above in addition to the stigma attached to any dissenting opinions about the value of excessive intellectual property standard setting beyond the TRIPS standard, as anti-development.<sup>118</sup> Yet, one must consider that the call for maximum enforcement, such as continuously updating Jordanian

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116. See, e.g., Richard T. Rapp & Richard P. Rozek, *Benefits and Costs of Intellectual Property Protection in Developing Countries*, J. WORLD TRADE, Oct. 1990, 75, 101. The paper finds a strong statistical relationship between intellectual property rights and modernization factors, but this author finds that there is no indication of causality. *Id.*

117. Juan C. Ginarte & Walter G. Park, *Determinants of Patent Rights: A Cross-National Study*, 26 RES. POL'Y 283, 298 (1997). This article argues that in less wealthy countries most R&D is done by the public sector, which is less inclined to use strong intellectual property rights. The corollary is that less developed countries with low levels of R&D stand to benefit less off of stronger intellectual property rights and should lessen the institutional cost of strong intellectual property rights through cooperation. *See id.*

118. See, e.g., Eveline Herfkens, Speech at the High-Level Parliamentary Seminar on Policy Coherence for Development (Oct. 2, 2003), <http://www.oecd.org/dataoecd/0/28/18271652.pdf>. Jordan's gross domestic product (GDP) in 2008 was estimated at \$31.01 billion purchasing power parity and per capita GDP was estimated at \$5,000 purchasing power parity. *Country Information, Jordan*, MIDDLEEASTNEWS.COM (2008), <http://www.middleeastevents.com/site/country-info/jordan-economy.asp>. Jordan's official unemployment rate for 2008 was estimated to be 12.9 percent, although unofficial estimates range up to 30 percent. *Id.* While, in 2008, about 86.3 percent of Jordan's GDP was from the services sector, such as tourism, 3.6 percent was from agriculture, and about 10.1 percent was from other industries, including garment and clothing, phosphate mining, fertilizers, and pharmaceuticals. *See id.*



intellectual property rights standards to meet the highest international standards, should not remain unchallenged.<sup>119</sup> It is equally important for Jordan to “take into account the costs and benefits of protection in the context of [its] unique economic situation,” including the notion that Jordan, as well as other developing countries, should consider minimal compliance.<sup>120</sup>

*A. Jordan's Exports and Imports are Still Not Technology-Sensitive*

An examination of Jordan's top exports reveals that they are products of the manufacturing and agricultural sectors, namely garments, vegetables, phosphates, pharmaceuticals, potash, fertilizers, and transportation equipment.<sup>121</sup> Aside from pharmaceuticals, none of these items is sensitive to changes in intellectual property law.

If economic development is based on the increase in the level of foreign direct investment, then imports will present an equally important insight metric. Data released by Jordan Central Bank reveals that 40 percent of Jordan's imports for 2009 were transportation equipment, crude oil, iron and steel, electrical machinery, raw materials for the garment industry, and heavy equipment for industry and agriculture.<sup>122</sup>

Closer examination of these items reveals that the raw material imported for the garment industry is used almost exclusively by the garment industry for re-exportation to the United States in accordance with the Qualified Industrial Zones Agreement and the JUSFTA.<sup>123</sup> Therefore, such imports present very little added value to the national economy or to intellectual property transfer.<sup>124</sup> This is in addition to the fact that many

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119. See Paul J. Heald, *Misreading a Canonical Work: An Analysis of Mansfield's 1994 Study*, 10 J. INTELL. PROP. L. 309, 318 (2003).

120. *Id.*

121. ANNUAL REPORT 2008, *supra* note 89, at 68.

122. CENT. BANK OF JORDAN, ANNUAL REPORT 68 (2009), <http://www.cbj.gov.jo/uploads/chapter4.pdf> [hereinafter ANNUAL REPORT 2009].

123. See *Justice for All*, *supra* note 46, at 48.

124. Even when it comes to employment of a local work force, the benefits are not clear in the garment sector, as one survey of a sampling of garment factories in Jordan indicated that Jordanians accounted for only approximately 10,000 of the 45,000 employees that comprised those factories. *Working Conditions in Jordan's Garment Sector*, U.S. AGENCY FOR INT'L DEV. (USAID), <http://jordan.usaid.gov/upload/features/JLATP%20Report%20>

employees in the garment industry are foreign workers.<sup>125</sup> The garment industry secured an exemption until January 2007 from an increase in Jordan's minimum wage requirement of JD 110 (\$158), which took effect in June 2006 for all other sectors.<sup>126</sup> Similarly, the transportation equipment in the export column is mainly re-exported to surrounding countries, especially Iraq.<sup>127</sup>

As to correlating the standards of intellectual property rights with FDI and imports, literature offers limited empirical evidence supporting the expectation that the relationship is positive. The results vary according to factors such as degree of industrialization (the more industrialized the nation, the more positive the response to strength of intellectual property rights), sector (more technically advanced sectors are more sensitive to intellectual property rights than less advanced ones), and even the level of existing FDI (the more FDI a country has, the more likely it will get more).<sup>128</sup> Other studies point to a more complex picture and to the fact that a

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%20FINAL%20March%2030.pdf (last visited Jan. 7, 2011). This author's discussions with the factory owners revealed that local workers require up to twelve months training, and therefore, it makes more economic sense for the factories to import skilled labor from Bangladesh and elsewhere. The garment industry also suffers from its discrimination against married female employees, because the industry prefers unmarried female workers who will work various shifts and not be constrained by the demands of their families.

125. See *Justice for All*, *supra* note 46, at 9. This extensive use of foreign labor, along with the fact that many FDI funds are not targeting production or job-generating projects, helps explain why, despite the steady increase in FDI for over nine years, the overall "official" rate of unemployment has remained unchanged, hovering around fifteen percent. EUROPEAN TRAINING FOUNDATION, UNEMPLOYMENT IN JORDAN 9 (2005), [http://www.etf.europa.eu/pubmgmt.nsf/\(getAttachment\)/4E4904B283AC4CAAC12570E0003D00E7/\\$File/NOTE6KCEZX.pdf](http://www.etf.europa.eu/pubmgmt.nsf/(getAttachment)/4E4904B283AC4CAAC12570E0003D00E7/$File/NOTE6KCEZX.pdf). Of course, unemployment rates within certain age groups are much higher. For example, in 2003, Jordanians aged twenty to twenty-four years old had an unemployment rate of 41.2 percent. *Id.* at 8. The unemployment rate for women in general was around 21 percent. *Id.* at 10.

126. Susan Razzaz & Farrukh Iqbal, *Job Growth Without Unemployment Reduction: The Experience of Jordan* 9 (Inst. for the Study of Labor, Conference Paper, 2008), [http://www.iza.org/conference\\_files/worldb2008/razzaz\\_s4349.pdf](http://www.iza.org/conference_files/worldb2008/razzaz_s4349.pdf).

127. *Dossier on Preferential Trade Agreements*, Vol. III, No. 9, CUTS CTR. FOR INT'L TRADE, ECON. & ENV'T 2 (Sept. 2009), <http://www.cuts-citee.org/pdf/PTADossier-Sep2009.pdf>.

128. See, e.g., W. LESSER, WORLD INTELLECTUAL PROP. ORG., THE EFFECTS OF TRIPS-MANDATED INTELLECTUAL PROPERTY RIGHTS ON ECONOMIC ACTIVITIES IN DEVELOPING COUNTRIES 24 (2001), [http://www.wipo.int/about-ip/en/studies/pdf/ssa\\_lesser\\_trips.pdf](http://www.wipo.int/about-ip/en/studies/pdf/ssa_lesser_trips.pdf) (finding that there is compelling evidence that stronger intellectual property rights do provide some domestic benefits for developing nations and hypothesizing that the protection and legal enforcement aspect that comes hand-in-hand with stronger intellectual property rights is a key factor that enables intellectual property rights to have a positive impact on FDI).

simple and direct correlation between increased trade and higher intellectual property standards cannot be assumed.<sup>129</sup>

*B. TRIPS, TRIPS-plus, and the Drive for FDI and Innovation*

Even though the public debate about the value of the JUSFTA among the industrialists and their main lobbying arm in Jordan – the Jordanian Association of Manufacturers of Pharmaceuticals and Medical Appliances (JAPM) – focuses on unequivocal positive results, it seems that their conversations with US government officials carry a different slant.<sup>130</sup> A 2009 report by the US Government Accountability Office (GAO) noted that for generic medicine producers, there was some frustration stemming from issues with data exclusivity provisions in intellectual property rights due to a “lack of transparency in rights and obligations.”<sup>131</sup> The GAO report further cites a 2007 study by Oxfam on Jordan’s pharmaceutical industry, which reported that the “TRIPS plus” provisions of the WTO and the JUSFTA precluded many Jordanian pharmaceutical firms’ generic medicines from reaching the market because of an acceptance procedure called “data exclusivity.”<sup>132</sup> Through data exclusivity, drug regulatory agencies are prevented, for a period of five years, from using the clinical trial data developed by the originator company to establish the safety and efficacy of the medicine for market approval of a generic drug that had already been shown to be equivalent to the original one.<sup>133</sup> These delays, according to Oxfam, impede or prevent generic competition and can lead to higher prices.<sup>134</sup>

The rebuttals to the Oxfam report, including the one cited by the GAO and funded by the Pharmaceutical Research and

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129. See COMM’N ON INTELLECTUAL PROP. RIGHTS, INTEGRATING INTELLECTUAL PROPERTY RIGHTS AND DEVELOPMENT POLICY 24 (2002), [www.iprcommission.org/papers/pdfs/final\\_report/CIPRfullfinal.pdf](http://www.iprcommission.org/papers/pdfs/final_report/CIPRfullfinal.pdf).

130. See GAO REPORT, *supra* note 27, at 92 (“As far as IPR [intellectual property rights], the majority of Jordanian pharmaceutical businesses manufacture generic medicines, and there are concerns that the IPR provisions of the FTA are hurting the generic industry.”).

131. *Id.*

132. *Id.*

133. *Id.*

134. ALL COSTS, NO BENEFITS: HOW TRIPS-PLUS INTELLECTUAL PROPERTY RULES IN THE US-JORDAN FTA AFFECT ACCESS TO MEDICINES 2 (Oxfam, Briefing Paper No. 102, Mar. 21, 2007), [http://www.oxfam.org.uk/resources/issues/health/downloads/bp102\\_trips.pdf](http://www.oxfam.org.uk/resources/issues/health/downloads/bp102_trips.pdf) [hereinafter Oxfam Briefing Paper].

Manufacturers of America (PhRMA), make mention to Jordanian pharmaceutical companies with an R&D base. These companies are so few in numbers (two companies specializing in drug delivery systems), however, that they end up being the exceptions that prove the rule.<sup>135</sup> These rebuttals to the lack of pharmaceutical production facilities and agreements are not specific in nature and use vague language like “[m]ultinational managers expect that manufacturing deals will be struck as Jordanian companies come into compliance . . . .”<sup>136</sup> They also lack sufficient numbers to show a trend.<sup>137</sup> Lastly, they mention the importance of having international drug launches in Jordan and a multinational clinical R&D base in order to foster the development of medical tourism and continued improvement in public health in Jordan.<sup>138</sup>

Such arguments, however, do not hold up under scrutiny because the share of medical tourism as a percentage of the total tourism sector has only increased around ten percent per year throughout the past decade.<sup>139</sup> Additionally, medical tourism mainly focuses on the expertise and availability of the medical professionals rather than the availability of blockbuster medical drugs, which can be obtained by mail from any country.<sup>140</sup> Jordan is a destination for medical services,<sup>141</sup> and, in being so, relies on a medical infrastructure of hospitals and trained medical staff and not on its reputation as a center for pharmaceutical research.

The continued improvements in the public health statistics mainly come from proliferation of education about simple personal hygienic habits, as well as the application of vaccination and other affordable and accessible medications, which are not

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135. See MICHAEL P. RYAN, CREATIVE & INNOVATIVE ECON. CTR., INTELLECTUAL PROPERTY REFORMS, PHARMACEUTICALS, AND THE HEALTH COMPETITIVENESS IN JORDAN: MISUNDERSTANDING AND MISINFORMATION FROM OXFAM INTERNATIONAL 2 (2007), [http://www.law.gwu.edu/Academics/research\\_centers/ciec/Documents/Notes%20on%20Creativity/RyanJordanOxfam.pdf](http://www.law.gwu.edu/Academics/research_centers/ciec/Documents/Notes%20on%20Creativity/RyanJordanOxfam.pdf).

136. *Id.* at 4.

137. See *id.*

138. *Id.* at 4-5.

139. Hani Hazaimah, *Jordan Tops Region as Medical Tourism Hub*, JORDAN TIMES (Sept. 8, 2008), <http://www.jordanembassyus.org/new/newsarchive/2008/09082008004.htm>.

140. RYAN, *supra* note 135, at 4-5.

141. See *Medical Tourism: “Profit from Global Health Care”*, 16, [http://www.hospitalscout.com/downloads/management\\_summary\\_pre\\_release.pdf](http://www.hospitalscout.com/downloads/management_summary_pre_release.pdf) (last visited Jan. 3, 2011).

related to high-end pharmaceutical research or patented drugs.<sup>142</sup> This is especially the case in Jordan since HIV-AIDS does not register as a national health issue,<sup>143</sup> and accordingly, the need for patented drugs is not as high of a priority as it is in other countries, such as in Africa or South America.

Historically, Jordan never really had a concerted strategy to attract Foreign Direct Investment (FDI) based on a strategic placement of intellectual property standards; it did not matter where the money came from as long as a significant portion of the money channeled into the Kingdom's economy.<sup>144</sup> Data supports this contention. In 2002, FDI totaled only \$186 million, while in the first nine months of 2006, FDI reached nearly \$1.2 billion, with more than 90 percent of that increase coming from Arab sources.<sup>145</sup> "[T]he US, Canada and Europe, for example, invest[ed] a shockingly low combined total of \$42.9 million in new projects" in the first nine months of 2006.<sup>146</sup> As more than 90 percent of the 2006 FDI came from Arab countries,<sup>147</sup> which do not have much of an intellectual property base themselves,<sup>148</sup> it is reasonable to assume that the FDI neither had an intellectual property component nor was influenced by intellectual property standards in Jordan. Indeed, the 2006 data shows that 80 percent of the FDI went to the industrial sector, "with 14 per cent earmarked for the country's growing tourism industry."<sup>149</sup> Those numbers shed light on the dismal role intellectual property played in attracting FDI

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142. See *A Healthy Population, Human Resources*, THE HASHEMITE KINGDOM OF JORDAN, <http://kinghussein.gov.jo/resources4.html#A%20Healthy%20Population> (last visited Nov. 22, 2010).

143. See *Info by Country, Jordan*, UNITED NATIONS CHILDREN'S FUND (UNICEF), [http://www.unicef.org/infobycountry/jordan\\_2296.html](http://www.unicef.org/infobycountry/jordan_2296.html) (last updated June 24, 2009).

144. See, e.g., Annex 1C, *supra* note 1, pmb1.

145. *FDI Hitting New Levels in Jordan*, AMEINFO.COM (Nov. 30, 2006, 09:33 AM), <http://www.ameinfo.com/pdfdocs/103831.pdf>; see also GAO REPORT, *supra* note 27, at 27 n.30 ("While Jordan does not maintain official detailed statistics of FDI, aggregate inflows of registered capital tracked by the Central Bank indicate that the main source countries for foreign investment are Middle Eastern (Iraq, Kuwait, United Arab Emirates, Saudi Arabia, Egypt, and Bahrain) or European (Denmark, Belgium, and the United Kingdom).").

146. *FDI Hitting New Levels in Jordan*, *supra* note 145.

147. *Id.*

148. Eric Garduno & Frank J. Pietrucha, *Intellectual Property Rights in the Arab World*, BUS. & FIN., 57, 60 (Winter-Spring 2003), <http://www12.georgetown.edu/sfs/publications/journal/Issues/ws03/gardunolocked.pdf>.

149. *FDI Hitting New Levels in Jordan*, *supra* note 145.

into Jordan. They also point to Jordan's burgeoning Dutch Disease.<sup>150</sup>

The idea that a country's ability to attract investments, both foreign and domestic, depends on the implementation and enforcement of the highest possible intellectual property standards is a hypothesis, not necessarily a truth; as a practical, empirical matter, that hypothesis for Jordan is flatly wrong. That is, it is simply not the case that the world's investors are to an obsessive degree focused on a country's intellectual property standards before deciding whether to move their capital. Intellectual property standards of a state are just one consideration when deciding whether to move capital and invest.

### *C. Lack of an Intellectual Property Strategy*

Jordan has adopted a comprehensive reform of its intellectual property laws and regulations.<sup>151</sup> To date, however, Jordan has not developed an industrial or technical base that warrants a high level of sophistication in its intellectual property standards, especially with the incorporation of TRIPS-plus standards. Its economy remains based on industries and activities that are not technology-sensitive.<sup>152</sup> The pharmaceutical sector, which would have been a good contender to prove an exception to that lack of development, is still lagging in exploring new markets and generating intellectual property research and development.<sup>153</sup> The lack of a governmental nationwide intellectual property strategy that is incorporated into the development goals of the country continues to keep the rewards and fruits of Jordan's intellectual property standards an unfulfilled promise.

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150. Dutch disease is an economic concept that tries to explain the apparent relationship between the exploitation of natural resources and a decline in the manufacturing sector. The theory is that an increase in revenues from natural resources will de-industrialize a nation's economy by raising the exchange rate, which makes the manufacturing sector less competitive and entangles public services with business interests. Patrick J. Keenan, *Curse or Cure? China, Africa, and The Effects of Unconditioned Wealth*, 27 BERKELEY J. INT'L L. 84, 105-06 (2009).

151. See Laswi, *supra* note 36, at 1.

152. See *Justice for All*, *supra* note 46, at 9.

153. See Oxfam Briefing Paper, *supra* note 134, at 16-17, 20.

#### D. Missed Opportunities and Limited Resources

The pre-TRIPS patent law, which granted process patents only and had a reduced patent term that effectively gave the industry a Bolar-equivalent period amounting to the life of the original patent, did not provide enough incentives for the Jordanian pharmaceutical industry to embark on its own R&D approach.<sup>154</sup> More is needed to meet the need for developed drugs and to capitalize on the export market once the original foreign patent expires. As a result, the mid- to long-term prospects of the Jordan pharmaceutical sector are not certain, mainly due to the absence of serious R&D at the corporate level and the absence of cooperation with possibly useful public research facilities.<sup>155</sup> The seemingly weak use of the legal framework provided by the accession to the WTO and the signing of the JUSFTA also point to the industry's mediocre ability to capitalize on the new tools and means offered to expand its product line and to leverage its existing trademarks and, equally important, marketing networks.

The introduction of the Clinical Trials Law provides positive but limited value from the technical perspective because there is not much information available on the value of such an activity on technology transfer. Additionally, there are unanswered questions from the legal and ethical perspectives.<sup>156</sup> Specifically, the law does not cover all of the areas necessary to ensure protections and safeguards.<sup>157</sup> For example, the law itself does not impose any requirements on the transfer of knowledge or know-how.<sup>158</sup>

154. See Assad Omer, *Access to Medicines: Transfer of Technology and Capacity Building*, 20 WIS. INT'L L.J. 551, 559, 560 (2002) (using India's patent law's effects on its pharmaceutical industry as a comparison to Jordan).

155. See Oxfam Briefing Paper, *supra* note 134, at 16-17, 20.

156. See, e.g., Ibrahim Ramahi & Henry Silverman, *Clinical Research Law in Jordan: An Ethical Analysis*, 9 DEVELOPING WORLD BIOETHICS 26, 26 (2007).

157. *Id.* at 32. "Unique aspects of the [Jordanian Research] Law include the requirement that those conducting any study have insurance that can compensate for research injuries and a system of fines and punishments for noncompliance with the Law. There are, however, some key items missing in the Jordanian Law. For example, the Law does not mention the requirement of a favourable assessment of risks and benefits, the fair selection of subjects, or articles regarding the protection of the rights and welfare of children and other vulnerable subjects participating in research. The paper concludes with the suggestion that new amendments should be considered for future revisions of the Clinical Research Law in Jordan." *Id.* at 26.

158. See generally Law of Clinical Studies 2001 (Jordan), <http://www.jfda.jo/EN/Laws/details.aspx?id=70>.

Rather, it merely attempts to regulate, in very broad terms, the process through which clinical trials take place.<sup>159</sup> Thus, this law may lead to the clinical trial aspect of pharmaceutical cooperation being mismanaged or not properly controlled. In turn, this could end up producing an ethically questionable environment where third world citizens are subjected to drug trials not permitted in developed countries. Worse still, this result may come without any broad value from the technology transfer point of view.

This point is supported by a report on the Jordan pharmaceutical industry conducted by the US Agency for International Aid (USAID). The report stated, “[t]he amount of clinical research organization activity in Jordan, the number of companies in [the clinical trial] sub-sector, and the number of R&D investments by PhRMA companies being carried out at places such as the King Hussein Medical Center was news to” industry staff and experts with whom the report drafters spoke “except those actually involved in doing it.”<sup>160</sup>

At the same time as these extensive trials, Jordan is attempting to marshal resources to create monitoring and enforcement agencies,<sup>161</sup> although a question exists as to whether these resources are actually effective or simply window-dressing.<sup>162</sup> Unfortunately, this allocation of resources represents an unduly burdensome drain on the very limited resources Jordan has.<sup>163</sup> The vast resources being expended by Jordan is evident from the number of governmental agencies that currently focus on intellectual property enforcement as part of their mission. These agencies include the National Library (part of the Ministry of Culture),<sup>164</sup> the Ministry of Industry and Trade,<sup>165</sup> the Jordan

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159. See Ramahi & Silverman, *supra* note 156, at 26.

160. RYAN & SHANEBROOK, *supra* note 90, at 12-13.

161. See INT’L INTELLECTUAL PROP. ALLIANCE, 2009 SPECIAL 301 REPORT ON COPYRIGHT PROTECTION AND ENFORCEMENT 385 (2009), <http://www.iipa.com/rbc/2009/2009SPEC301JORDAN.pdf> (discussing the establishment of the Intellectual Property Rights (IPR) Division of the Jordanian Police and the Intellectual Property (IP) Division at the Customs Department).

162. See *id.* at 386.

163. See generally ANNUAL REPORT 2008, *supra* note 89.

164. *Public-Private Sector Collaboration Pushes for Increase in IPR Awareness*, AMEINFO.COM (Oct. 4, 2005), <http://www.ameinfo.com/cgi-bin/cms/page.cgi?page=print;link=69296>.

165. See Ministry of Industry & Trade Introduction, *supra* note 22.



Institute for Standards and Metrology,<sup>166</sup> the Jordan Customs Department,<sup>167</sup> the Public Security Department,<sup>168</sup> and Jordan Food and Drug Administration.<sup>169</sup> Additional resources are expended on seminars and workshops for members of the legal system.<sup>170</sup>

To avoid the depletion of precious resources, Jordan must find new ways to efficiently use and leverage its existing intellectual property laws and regulations.

## VI. CONCLUSION

Overall, when one looks at the Jordanian example, there is a continuous push toward higher intellectual property standards despite their failure to produce measurable economic results. This challenges what was previously presumed to be an irrevocable link between the implementation of higher intellectual property rights and economic benefit. The utility of the TRIPS-plus standards is especially challenged.

This Article tracked the development of the Jordanian intellectual property system from TRIPS-minus to TRIPS-plus standards in less than ten years but could not find any evidence of matching evolution in the development of a technology-sensitive economy. This does not impugn the validity of the need for an intellectual property system; rather, it focuses one's attention to the suitability of seeking ever-increasing standards with the assumption that technology transfer and innovation will shortly follow. The falsity of this assumption has highlighted the critical need for the development of intellectual property standards within a national context, specific for each country. Since intellectual property laws can be viewed as among the most specific for any nation, they must be tailored to fit the original intent of such laws. This intent can be broadly described as furthering the

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166. Press Release, Embassy of the United States, U.S. and Jordan Strengthen Cooperation on Enforcing Intellectual Property Rights (July 6, 2008), [http://jordan.usembassy.gov/pr\\_usjoip\\_070608.html](http://jordan.usembassy.gov/pr_usjoip_070608.html).

167. *Id.*

168. *Id.*

169. *Progress of Intellectual Property Rights Legislation and Enforcement in Jordan Vis-à-Vis the Special 301 Report for 2009*, USAID JORDAN ECON. DEV. PROGRAM, 7 (Feb. 17, 2009), [http://pdf.usaid.gov/pdf\\_docs/PNADT034.pdf](http://pdf.usaid.gov/pdf_docs/PNADT034.pdf).

170. Annual Courts Report 2008, JORDANIAN JUDICIAL COUNCIL, <http://www.jc.jo/> (last visited Jan. 7, 2011).

development of innovation and the public good and creating limited monopoly periods.

Further analysis also points to a lack of direct correlation between intellectual property standards and FDI levels in Jordan. Because of this, one should be careful not to overstate the importance of increased intellectual property protection standards on FDI for Jordan. This is true regardless of how much information one has regarding technology transfer, which is a key factor in gauging the effect of intellectual property standards on FDI.

As the Jordanian example indicates, while there may be some ideal level of intellectual property rights that will provide adequate protection, this is not sufficient to produce a bolstering economy. Intellectual Property protections affect, but do not control, increased trade and FDI flow into intellectual property-sensitive goods and services in countries above a certain economic development threshold. Jordan is arguably below that threshold and can benefit from greater intellectual property rights. But intellectual property legislation is not sufficient to produce such promised benefits; rather, a comprehensive economic plan is required. Key to that plan is an accurate definition of what constitutes a sufficient, yet not excessive, level of intellectual property rights.

Poor countries like Jordan may find intellectual property rights useful, provided that they are accommodated to the specific needs of the country. Therefore, the government should keep this in mind when making decisions related to what level of intellectual property protection is best for its development. As suggested by the empirical data discussed above, Jordan must do more than regulate compliance to assure an equitable return on their investment in the global economy, for the rewards are not instantaneous, let alone guaranteed. Further, Jordan should definitely do more to define what constitutes a sufficient level of intellectual property rights and strike a balance between its economic realities and international obligations. In this regard, Jordan faces a particularly difficult task because the flexibility of its policies is restricted by TRIPS and the more stringent standards under JUSFTA and JEUA.

Absent a national intellectual property strategy that is integrated into developmental goals to optimize knowledge in

intellectual property-sensitive goods and services, Jordan and other developing countries stand to continue to pour resources into an area that, for them, is not strongly correlated with economic growth. These nations stand to benefit little from heightened levels of TRIPS and TRIPS-plus intellectual property standards that protect content they neither produce nor possess.