



## AN ANALYSIS OF THE INTERACTION BETWEEN IPR AND TRADE

By Sahaana Chhabria  
From Jindal Global Law School

### INTRODUCTION

Intellectual property rights (“IPR”) are those bundle of legal rights that protect the innovations and artistic works of various creators and innovators. These rights include copyright protections, trademarks and granting of patents.<sup>1</sup> Accelerated globalization has resulted in large scale trade and commerce of intellectual property on a global platform, thereby generating a need for comprehensive IPR regimes. Apart from intellectual property being a commodity of trade, IPR’s have an impact on various other aspects of international trade.<sup>2</sup> They determine the flow of technology and information between countries, copyright protection prevents illegal privacy and distribution of computer software, adequate trademark protections prohibit the sale of counterfeit goods and the grant of patents fosters innovation, that further leads to an increase in trade activities.<sup>3</sup> This paper further seeks to analyze the role of IPR’s in international trade in relation to its impact

and significance. Before analyzing the relation between IP and trade law, it is imperative to understand the international conventions and agreements with respect to the same.

### INTERNATIONAL REGULATIONS

To begin with, The World Trade Organization (“WTO”) 1995 Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS”) Agreement has provided for certain standards of protection and enforcement of IPRs. These standards include the WTO nondiscrimination principles, the binding dispute settlement mechanism for IPR disputes and provision for exceptions that balance the interests of IP with the interests of other areas such as public health and economic development.<sup>4</sup> The main aim of TRIPS is to harmonize the various national intellectual property laws of WTO countries. The North American Free Trade Agreement 1994 (“NAFTA”) is another example of a trade agreement that protects IPR. It is a preferential trade agreement signed between Mexico, the United States and Canada.<sup>5</sup> NAFTA addresses the international piracy of IP rights and protects geographical trademark names. It mandates for automatic recognition of

<sup>1</sup> Ilias Akhtar, S. and F. Fergusson, I., 2014. *Intellectual Property Rights And International Trade*. [online] Everycrsreport.com. Available at: <[https://www.everycrsreport.com/reports/RL34292.html#\\_Toc40441629](https://www.everycrsreport.com/reports/RL34292.html#_Toc40441629)>.

<sup>2</sup> Globalpatentfiling.com. 2019. *International Regime Of IP Laws And Trade Importance*. [online] Available at: <<https://www.globalpatentfiling.com/blog/international-regime-intellectual-property-laws-and-its-importance-trade>> [Accessed 28 September 2020].

<sup>3</sup> Ibid 2.

<sup>4</sup> Uspto.gov. 2017. *Trade Related Aspects Of IP Rights*. [online] Available at: <<https://www.uspto.gov/ip-policy/patent-policy/trade-related-aspects-ip-rights>> [Accessed 27 September 2020].

<sup>5</sup> Maskus, K. and Ridley, W., 2017. *Intellectual Property-Related Preferential Trade Agreements And The Composition Of Trade*. [online] Oecd.org. Available at: <[https://www.oecd.org/site/stipatents/IPSDM17\\_1.1\\_Maskus\\_paper.pdf](https://www.oecd.org/site/stipatents/IPSDM17_1.1_Maskus_paper.pdf)> [Accessed 27 September 2020].



internationally well-known marks.<sup>6</sup> Adequate protection of trademarks is required to prevent consumers from being misled by the sale of counterfeit goods under a brand name. A Trademark identifies the source of a product and distinguishes it from other sources. The most important organisation that oversees IP related concerns is the World Intellectual Property Organisation (WIPO”).

It is an organisation that is part of the United Nations, tasked with creating an effective yet balanced international IP system that enables innovation and promotes creativity.<sup>7</sup> The EU also has strict measures to protect its IP on a global level, such as the recognition of well-known marks, the requirement of strict geographical indicators and rules that require the original creator of a product to be notified when a possible producer of a similar product applies for market approval.<sup>8</sup> The next section seeks to analyse certain contexts in which such IPR protections and provisions have effected trade.

### IPR AND THE FLOW OF TECHNOLOGY AND CAPITAL GOODS

Trade in capital goods is vital for the economies of developed countries in the global North and for the developing countries situated in the global South. Trade activities seem to be advantageous for developing countries as they allow them to engage with new knowledge provided by developed countries, which further aids in improving the efficiency of production.<sup>9</sup> Such knowledge can be said to include efficient modes of production, product design and technical know-how. Exports also act as a channel for technology spill-overs.<sup>10</sup> Developing countries also import capital goods from the North as they are believed to be more advanced in terms of technology. Such international technology transfer refers to the process by which a firm in one country is introduced to and utilises the technology manufactured in a more developed country.<sup>11</sup> IPR protections have an impact on this technology diffusion. This section seeks to analyse whether strong and well enforced IPR rules promote or obstruct the flow of technology between the global North and South. To begin with, it has been argued that stronger IPR protections in developing countries have proven to be beneficial for them. Yang and Maskus<sup>12</sup> argue that stronger

<sup>6</sup>Garcia, F., 1993. *Protection Of Intellectual Property Rights In The North American Free Trade Agreement: A Successful Case Of Regional Trade Regulation*. [online]

Digitalcommons.wcl.american.edu. Available at: <<https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1880&context=auilr>> [Accessed 27 September 2020].

<sup>7</sup> Ibid 3.

<sup>8</sup> Ibid 5.

<sup>9</sup> Mrad, F., 2017. The effects of intellectual property rights protection in the technology transfer context on economic growth: the case of developing countries. *Journal of Innovation Economics &*

*Management*, [online] 23(2), p.33. Available at: <<https://www.cairn.info/revue-journal-of-innovation-economics-2017-2-page-33.htm#>>.

<sup>10</sup> Falvey, R., Foster, N. and Memedovic, O., 2006. *The Role Of Intellectual Property Rights In Technology Transfer And Economic Growth: Theory And Evidence*. [online] Unido.org. Available at: <[https://www.unido.org/sites/default/files/200904/Role\\_of\\_intellectual\\_property\\_rights\\_in\\_technology\\_transfer\\_and\\_economic\\_growth\\_0.pdf](https://www.unido.org/sites/default/files/200904/Role_of_intellectual_property_rights_in_technology_transfer_and_economic_growth_0.pdf)> [Accessed 27 September 2020].

<sup>11</sup> Ibid

<sup>12</sup> Yang, G. and Maskus, K., 2001. Intellectual property rights, licensing, and innovation in an



intellectual property rights in the South allow for firms of developed countries to license their technologies and further allows for developing countries to enter the export market. They further state that strict IPRs of the global South promotes technology transfer via increased trade, FDI and joint ventures<sup>13</sup> Such strict enforcement can therefore be said to increase the imports of the foreign country. In support of the above statement, Alireza Naghavi states that a strong IPR regime is considered to be a priority for many multinational corporations as they would want to mitigate any monetary damage caused in situations wherein their property rights are infringed as a result of weak IPR regimes in the importing countries of the South.<sup>14</sup>

A weak IPR regime also discourages international firms from trading in intellectual assets due to the risk of imitation posed by third party firms of the importing country.<sup>15</sup> Another incentive for the South to implement a well-protected IPR regime involves boosting of the economy through foreign direct investments (FDI). FDI may be understood as another channel of trade involving transfer of advanced technological knowledge.

FDI is predominately carried out in industries that significantly value the transfer of knowledge and technology. FDI is said to take place when the foreign industry either acquires business assets in the south or establishes another branch of business operation. The innovator has the option to shift the production of goods to the South, reducing the competition for resources in the North.<sup>16</sup> Avoiding trade and transport expenditures is another motive for Northern firms to establish subsidiaries in the developing countries to serve its foreign demand.<sup>17</sup> A shift in the production of goods also benefits the Southern countries as it may result in the creation of labour opportunities, thereby increasing the income generated by the importing nation. It is important to note that such FDI will fail to take place if the foreign firm is constantly concerned about the piracy of its production methods and innovations. Every firm would want a certain degree of assurance to ensure minimum monetary losses as a result of technological infringement. In furtherance of this, a study conducted by Lee and Mansfield concluded that countries in which IPR's were not significantly valued tended to attract lower FDI volumes.<sup>18</sup> Moreover, relatively low

endogenous product-cycle model. *Journal of International Economics*, 53(1), pp.169-187.

<sup>13</sup> Maskus, K. and Yang, L., 2018. Domestic patent rights, access to technologies and the structure of exports. *Canadian Journal of Economics/Revue canadienne d'économique*, 51(2), pp.483-509.

<sup>14</sup> Naghavi, A., 2007. Strategic Intellectual Property Rights Policy and North-South Technology Transfer. *Review of World Economics*, [online] 143(1), pp.55-78. Available at: <<http://www.jstor.com/stable/40441127>>.

<sup>15</sup> Markusen, J., 1998. *Contracts, Intellectual Property Rights, And Multinational Investment In Developing Countries*. [online] Nber.org. Available

at: <<https://www.nber.org/papers/w6448.pdf>> [Accessed 27 September 2020].

<sup>16</sup> Lai, E., 1997. *International Intellectual Property Rights Protection And The Rate Of Product Innovation*. [online] Elai.people.ust.hk. Available at: <<http://elai.people.ust.hk/pdf/JDE.PDF>> [Accessed 27 September 2020].

<sup>17</sup> Ibid 14.

<sup>18</sup> Yang, G. and Maskus, K., 2001. Intellectual property rights and licensing: An econometric investigation. *Weltwirtschaftliches Archiv*, [online] 137(1), pp.58-79. Available at: <<https://www.jstor.org/stable/40440823>>.



technology intensive industries aim to protect IP rights to attract FDI as a channel of technological transfer.

We may now infer that there are various advantages to having a comprehensive IPR system in place. At this juncture it is important to analyse the other side of the coin and observe the ways in which such a strong IPR system may cause the global South to be at a disadvantage. The above paragraph argues that tighter IPR in the South results in greater investments. This may not always be the case; well-fortified protections prevent Southern firms from optimal utilization of the cost reducing R&D invented by the developed countries.<sup>19</sup> The benefits derived from these inventions depends on factors such as the imitative ability of the importing firm. We must also consider the deterring effect surplus exports can have on domestic manufacturers. Consumers may prefer to purchase the imported products instead of local products, believing them to be of superior quality. In furtherance of the same, it has also been argued that stringent protections may provoke a decrease in investment and a subsequent increase in imports which in turn would deter local innovation and lower global welfare. Such welfare losses may arise due to monopoly

pricing, higher dependency on imports and loss of variety.<sup>20</sup>

Furthermore, a survey conducted by the Congressional Research Service (2011) revealed that some do believe that an expansion of IPR is an obstacle to growth and development in less advanced countries.<sup>21</sup> We may now infer that the relationship between strong IPRs and FDI is not as linear as it is made out to be. There are other factors that play a role in determining the level of trade and FDI apart from IPR policies. These include imitative ability, the market size of the countries and openness to trade.

Imitative ability refers to the capacity of a country to copy foreign technological methods of production and the eventual end product. It is influenced by external factors such as the level of development of the receiving country and the ability to undertake significant technological innovation.<sup>22</sup> Developing countries may also not have the advanced factors of production and raw materials to imitate foreign products. There exists a relationship between the imitative ability of country, IPR protections and the level of trade. Maskus has concluded that weak IPR laws act as trade barriers, particularly in countries where the threat of imitation is high.<sup>23</sup> Firms are hesitant to share

<sup>19</sup> Ibid 14.

<sup>20</sup> Helpman, E., 1993. Innovation, Imitation, and Intellectual Property Rights. *Econometrica*, [online] 61(6), p.1247. Available at: <<https://www.jstor.org/stable/2951642>>.

<sup>21</sup> Prasetyo, E., Zhou, Z., Setiadi, A., Fukaya, S., Lopez, C. and Uochi, I., 2013. *The Impacts Of Intellectual Property Rights Protection On International Trade*. [online] ResearchGate. Available at:

<[https://www.researchgate.net/publication/249644400\\_The\\_Impacts\\_of\\_Intellectual\\_Property\\_Rights\\_Protection\\_on\\_International\\_Trade](https://www.researchgate.net/publication/249644400_The_Impacts_of_Intellectual_Property_Rights_Protection_on_International_Trade)> [Accessed 27 September 2020].

<[https://www.researchgate.net/publication/249644400\\_The\\_Impacts\\_of\\_Intellectual\\_Property\\_Rights\\_Protection\\_on\\_International\\_Trade](https://www.researchgate.net/publication/249644400_The_Impacts_of_Intellectual_Property_Rights_Protection_on_International_Trade)> [Accessed 27 September 2020].

<sup>22</sup> Falvey, R., Greenaway, D. and Foster, N., 2006. Trade, Imitative Ability and Intellectual Property Rights. *Review of World Economics / Weltwirtschaftliches Archiv*, [online] Vol. 145(No. 3 (Oct., 2009), pp.pp. 373-404. Available at: <<https://www.jstor.org/stable/40587820>>.

<sup>23</sup> Officer, L., 2002. Keith E. Maskus. *Intellectual Property Rights in the Global Economy*. Washington, D.C.: Institute for International Economics, 2000. Pp. 266. *Economic Development and Cultural Change*,



intellectual assets with domestic firms when the such threats are high. They perhaps fear the production of counterfeit products, that may result in harm being causes to their brand reputation. Stronger protections reduce such threats and increase the economic returns of the licensor, which in turn motivates him to innovate and license.<sup>24</sup> It must also be considered that by raising the cost of Southern imitation, stringent IPR measures in the South delays the transfer of production to the South.<sup>25</sup> Domestic unemployment is another shortcoming as a result of a reduction in the production of imitative goods.<sup>26</sup>

The above discussion suggests that the impact of strong imitative abilities on the level of trade is not a linear relationship. While strong imitative abilities deter the Northern firms for engaging in trade, weak imitative abilities delay the production of goods in the South and may also result in unemployment. Moreover, developing countries are able to benefit only through imitation as they are then able to produce new innovative technologies. Local firms are able to enhance their technological knowledge through simple imitation of foreign products and processes.<sup>27</sup> To create a balance, strong IPR policies are required in countries that have the ability to imitate foreign goods.

The developed countries will perhaps be pacified to a certain extent as such protections will ensure a reduction in the losses that may follow the threats of imitation. On the other hand, Southern firm

will also benefit through the continued production of imitated foreign goods.

Therefore, it can be said that strong imitative abilities along with strong IPR protections encourage trade.<sup>28</sup> Apart from the capacity to copy foreign goods, the kind of economy also impacts the level of trade. The impact of IPR protection on factor driven countries is negative. It becomes more difficult to access technological factors of productions/raw materials required to manufacture higher added value products and to shift to production of more advanced goods. The threshold of innovation in such countries is low and therefore they do not derive any benefits from a strong IPR regime. The impact of protections on efficiency driven and innovation driven countries is said to be unclear. The positive and negative effects seem to cancel each other. Among the positive effects of IPR protection, the most common one is that it promotes greater innovation.<sup>29</sup>

### THE EFFECTS OF PATENTS ON TRADE

A patent is a limited monopoly that is guaranteed in return for a technical solution. It is a contractual agreement between the patent holder and the government. The impact of strengthened patent protection is ambiguous with various advantages and disadvantages. The most prominent advantage of a tightened patent regime is that generates innovation. The U.S depends on

[online] 51(1), pp.257-262. Available at: <<https://www.jstor.org/stable/10.1086/344039>>.

<sup>24</sup> Ibid 18.

<sup>25</sup> Bascavusoglu, E. and Zuniga, M., 2005. The effects of intellectual property protection on international knowledge contracting. *HAL archives*.

<sup>26</sup> Ibid 23.

<sup>27</sup> Maskus, K. and Yang, L., 2013. *The Impacts Of Post-TRIPS Patent Reforms On The Structure Of Exports*. [online] Rieti.go.jp. Available at: <<https://www.rieti.go.jp/jp/publications/dp/13e030.pdf>> [Accessed 27 September 2020].

<sup>28</sup> Ibid 10.

<sup>29</sup> Ibid 21.



high technological products in its trading activities. These products are a result of intensive research and development (R&D) that is protected by patent laws. The U.S government also uses patent statistics to evaluate trade competitiveness and assess the technological performances of various firms<sup>30</sup>. Such performance assessments can also be used to decide which products are to be exported to other nations. The U.S patent system also protects its domestic markets against foreign competition. If the International Trade Commission finds that an import has infringed a U.S patent, it may either issue exclusion orders preventing those imports from entering the market or cease-and-desist orders to prohibit the sale of already imported items.<sup>31</sup> A strong patent system in developing countries can ensure that such orders are not implemented against its products that are being exported, through an extensive prior art check. A comprehensive check may mitigate costs of litigations that may arise later due to trade disputes. Stronger patent protections lower the cost of enforcing contracts and thereby mitigate the costs of technological transfer.<sup>32</sup> In certain cases, patents are also granted in exchange for the publication of the patent claim. The grant of exclusive temporary rights act as an incentive to disclose knowledge to the public, that would have otherwise remained a secret.<sup>33</sup>

Although the information that has been revealed cannot directly be applied, until the expiry of the patent granted for a product, such published information can be used by developing countries to perhaps improve the efficiency of current methods of production and further innovate. Apart from promoting diffusion of technological information, stronger patent laws also ensure that less effort is needed by global firms to protect their proprietary knowledge.<sup>34</sup> In this manner, the costs of litigation is perhaps mitigated and the increased availability of funds may be used to ensure improved production capacity in developing countries, where an additional operational branch has been established by Northern firms.

The above paragraphs have discussed the benefits of tighter patent systems. It is also important to mention the detrimental effects of such a system. To begin with Takalo and Kammianen (2000) argue that stronger patent protections could delay the commercialization of innovations and firms might find it more rewarding in terms of profit to keep exploiting already patented technologies.<sup>35</sup> Firms may also decide to engage in the act of evergreening which involves extending the duration of an expiring patent by applying for disguised/artful patents for minor changes on an already patented product. In addition to this, patent laws increase the monopoly power of licensors or manufacturers and

<sup>30</sup> Mossinghoff, G., 1984. *The Importance Of Intellectual Property Protection In International Trade*. [online] Lawdigitalcommons.bc.edu. Available at: <<https://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1430&context=iclr>> [Accessed 27 September 2020].

<sup>31</sup> Ibid

<sup>32</sup> Ibid 25.

<sup>33</sup> Primo Braga, C., Fink, C. and Sepulveda, C., n.d. *Intellectual Property Rights And Economic Development*. [online] Iatp.org. Available at: <[https://www.iatp.org/sites/default/files/Intellectual\\_Property\\_Rights\\_and\\_Economic\\_Deve.pdf](https://www.iatp.org/sites/default/files/Intellectual_Property_Rights_and_Economic_Deve.pdf)> [Accessed 27 September 2020].

<sup>34</sup> Ibid 27.

<sup>35</sup> Ibid 25.



gives them the opportunity to reduce the quantities exported and charge higher prices for the imported products in developing countries. Patent thickets also pose a serious threat to technological transfer arrangements as they act obstruct the possibility of arm's length transfer. This in turn affects the developing countries the most as technological transfers strengthen the capacity domestic productions.<sup>36</sup> These patent thickets are created when a patent has the ability to be linked with other patents, thereby encouraging patents for marginal inventions. The resulting complex network consisting of various single patents is known as a patent thicket. Moreover, these complex networks pose problems for the patent licensees as it is perhaps difficult to ascertain the patents actually needed by the licensee.

The effect of patent systems on trade also depends upon a variety of other factors such as the initial patent protections established in a country. Maskus and Yang consider a country where patent protections are initially weak, and the risk of imitation is at a minimum. Tightening its patent laws would further reduce this risk and in turn, the licensing costs would be lowered. However, the now strong patent rights would also result in increasing the monopoly power of the licensor. In such a situation the monopoly power effect would outweigh the economic return effect, thereby reducing the incentive of the licensor to innovate and license new

technologies as he may now choose to exploit the monopolistic market situation. On the other hand, in countries where patent protections are initially strong, the economic returns seem to dominate the monopoly power effects and further tightening of the protections induce more licensing activities.<sup>37</sup>

Maskus and Penubarti (1995) thus argue that there is a "trade-off between the enhanced market power for the firm created by stronger patents and the larger effective market size generated by reduced abilities of local firms to imitate the product".<sup>38</sup> A study conducted in Canada concluded that stronger patent laws induce greater Canadian exports to all importing countries, irrespective of their level of development, as a result of an expansion of international markets. The results further suggested that weak patent enforcement acts as a barrier to Canadian exports to those countries that pose a high risk of imitation capabilities.<sup>39</sup>

### CONCLUSION

Based on the above discussions, it can be inferred that the effect of IPR regimes on trade activities is multidimensional and depends upon a variety of factors. Furthermore, IPR systems seem to more beneficial to firms of Northern developing countries. Some studies argue that IPR protections act as trade barriers and are not to be associated with trade liberalization

<sup>36</sup> Dhar, B. and Joseph, R., 2012. *FOREIGN DIRECT INVESTMENT, INTELLECTUAL PROPERTY RIGHTS AND TECHNOLOGY TRANSFER THE NORTH-SOUTH AND THE SOUTH-SOUTH DIMENSION*. [online] Unctad.org. Available at: <[https://unctad.org/en/PublicationsLibrary/ecidc2012\\_bp6.pdf](https://unctad.org/en/PublicationsLibrary/ecidc2012_bp6.pdf)> [Accessed 27 September 2020].

<sup>37</sup> Ibid 18.

<sup>38</sup> Ibid 25.

<sup>39</sup> Rafiqzaman, M., 2002. The impact of patent rights on international trade: evidence from Canada. *Canadian Journal of Economics/Revue Canadienne d'Economique*, [online] 35(2), pp.307-330. Available at: <<http://www.jstor.com/stable/3131948>>.

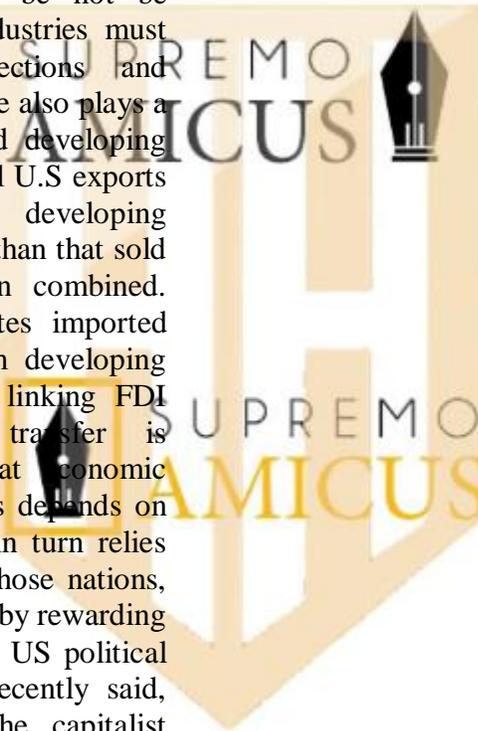


negotiations. Others conclude that IPR promote trade through the processes of innovation, economic growth and technology transfer. Some developing countries also believe that the application of international IPR regimes would obstruct their own technological progress and therefore they should be given an option to opt out of the international IPRs as provided by the current conventions.

Although the effect of IPR on trade is uncertain and somewhat ambiguous, the impact of it on trade must be not be underestimated. Firms and industries must not assume that IP protections and procedures are universal.<sup>40</sup> Trade also plays a crucial role for developed and developing countries. Forty percent of total U.S exports in 1982 was purchased by developing countries, a proportion greater than that sold to western Europe and Japan combined. Alternatively, the United States imported goods worth \$99 billion from developing countries. Although evidence linking FDI channels and technology transfer is inconclusive, it is certain that economic growth in developing countries depends on technological progress which in turn relies upon providing incentives to those nations, incentives that can be provided by rewarding creativity and innovation.<sup>41</sup> As US political philosopher Michael Novak recently said, “what is distinctive about the capitalist economy is the original discovery that the primary cause of economic development is

mind. The cause of wealth is invention, discovery, and enterprise.”<sup>42</sup>

\*\*\*\*\*



<sup>40</sup> Iptse.com. n.d. *Importance Of Intellectual Property Rights In Foreign Trade | IPTSE*. [online] Available at: <<https://iptse.com/intellectual-property-rights-and-international-trade/>> [Accessed 27 September 2020].

<sup>41</sup> Ibid 30.

<sup>42</sup> Pratt, Jr., E., n.d. *Intellectual Property Rights And International Trade*. [online] Iatp.org. Available at: <[https://www.iatp.org/sites/default/files/Intellectual\\_Property\\_Rights\\_and\\_International.htm](https://www.iatp.org/sites/default/files/Intellectual_Property_Rights_and_International.htm)> [Accessed 27 September 2020].