### Innovation DA

#### **There are two links to innovation.**

#### **First, retaliation.**

#### Reducing IP protections destroys relationships between public and private sector—Biden administration proves.

**Jennings '21** (Katie Jennings; staff writer at Forbes, healthcare reporter for POLITICO, Knight-Bagehot Fellow in reporting; 5-5-2021; "Biden Decision To Back Waiving Patents For Covid Vaccines Sparks Industry Backlash"; https://www.forbes.com/sites/katiejennings/2021/05/05/biden-decision-to-back-waiving-patents-for-covid-vaccines-sparks-industry-backlash/, Forbes, accessed 7-29-2021; JPark)

The U.S. is typically the staunchest defender of intellectual property rights on the international stage, so it was something of a shock when **the Biden Administration** on Wednesday **announced its support for waiving patents on Covid-19 vaccines**. “This is a global health crisis, and the extraordinary circumstances of the Covid-19 pandemic call for extraordinary measures,” U.S. Trade Representative Katherine Tai said in a statement. “The Administration believes strongly in intellectual property protections, but in service of ending this pandemic, supports the waiver of those protections for Covid-19 vaccines.” The move comes in response to a World Trade Organization proposal led by India and South Africa to suspend some provisions of an international trade agreement in a bid to boost vaccine manufacturing and access, especially in lower- and middle-income countries. But it remains unclear how quickly production could increase, as patents are only one constraint in a complex global supply chain. The pharmaceutical industry was quick to respond, noting that drug manufacturers are already working with governments and nonprofits to provide access to vaccines. Trade groups warned that waiving intellectual property protections would slow down innovation while doing little to actually help meet demand. “**This change in longstanding American policy will not save lives. It** also flies in the face of President Biden’s stated policy of building up American infrastructure and creating jobsby **hand**ing **over American innovations to countries looking to undermine our leadership in biomedical discovery,”** Steve Ubl, **president and CEO of the trade group PhRMA said in a statement**. **“This decision does nothing** to address the real challenges to getting more shots in arms, including last-mile distribution and limited availability of raw materials.”

#### **Furthermore, history proves--pharma companies retaliated in the past when IPP was reduced**

Lazare and Guerrero 21 continues [Sarah, editor and reporter, journalist, In These Times, "Big Pharma Is Deciding Who Lives and Who Dies in the Global South The chilling effect of the pharmaceutical industry’s veiled threats." July 22, https://inthesetimes.com/article/pfizer-pharmaceutical-companies-covid-pandemic-coronavirus-latin-america-trips-waiver-vaccines

**This would not be the first time the pharma**ceutical **industry has retaliated** against countries. In 2007, the U.S.-based Abbott Laboratories refused to supply Thailand with a new HIV treatment in response to the country’s decision to override patent rules on three drugs the company produces, including a cheaper, generic version of the HIV treatment Kaletra. Abbott deliberately withheld a new heat-stable version of Kaletra, which is best suited for countries with hot, muggy climates, and the company was explicit about its punitive intent. ​“This is a consequence, directly, of the Thai government’s decision not to support innovation by breaking the patents of numerous medicines,” said Dirk van Eeden, director for Abbott’s public affairs, according to a 2007 article in Financial Times. (A few weeks later, Abbott reversed its decisions following global outcry.) But one can look to more recent history to find other forms of industry retaliation. As journalist Lee Fang reported **in March, pharma**ceutical industry trade **groups pressured the Biden administration to** impose **sanction**s on **Hungary, Chile and Colombia for their efforts to override patent rules** in a bid to improve access to Covid-19 vaccines. This kind of retaliation is not new or unique to the Covid-19 pandemic. **Pharma**ceutical **companies** and American lawmakers **have threatened India** with sanctions **for its production of a cheaper version of a cancer drug, and** threatened **Malaysia with sanctions for its use of a cheaper version of a Hepatitis C drug.** Such actions can have a chilling effect. ​“As a result of these and other instances, countries have, understandably, been reluctant to develop more flexible domestic [compulsory licensing] policies and are certainly out of practice in using them,” writes Rachel Thrasher, research fellow at the Global Development Policy Center.

#### **Backlash from Big Pharma will manifest in widespread innovation loss**

Lazare and Guerrero 21 [Sarah, editor and reporter, journalist, In These Times, "Big Pharma Is Deciding Who Lives and Who Dies in the Global South The chilling effect of the pharmaceutical industry’s veiled threats." July 22, <https://inthesetimes.com/article/pfizer-pharmaceutical-companies-covid-pandemic-coronavirus-latin-america-trips-waiver-vaccines>

On April 24, Elizabeth de Carvalhaes, executive president of the Brazilian pharmaceutical company trade group Interfarma, said out loud what the drug industry had up until then avoided uttering in public. In an interview with Folha de São Paulo, the most widely-read newspaper in Brazil, de Carvalhaes declared that if the South American country were to green-light compulsory licensing to expand access to Covid-19 vaccines, pharmaceutical companies might respond by withholding supply of the vaccines. ​“This is not retaliation,” she proclaimed. ​“The demand is much bigger than the supply, and they may find it more advantageous from an economic point of view to sell to countries that do not break patents**.”** This was not an idle threat. Interfarma represents Pfizer, Gilead, AstraZeneca and other major pharmaceutical companies. The trade group’s spokesperson made the remarks at a time when Brazil was pushed to the point of desperation: The same day the article was published, more than 71,000 new Covid-19 cases were reported in Brazil. The country’s outbreak has been so severe and uncontrolled that it’s spawned the Gamma variant, which has since spread around the world. Some countries hope to find relief in compulsory licensing, when a government allows the production of a vaccine without the consent of a patent owner, a move floated in Brazil as a way to urgently expand vaccine access while the pandemic rages. (A compulsory licensing bill has passed Brazil’s Senate but has not yet officially been signed into law.) Interfarma’s implied threat against such a measure underscores a dynamic that public health advocates say is particularly pernicious during a pandemic: **Countries** that run afoul of drug companies by **supporting measures to override patents** **risk facing the wrath of an industry that has the power to decide whether** a huge swath of **their population lives or dies.**

#### **Second, trade secrets.**

#### **Reducing IPP will expose trade secrets necessary for innovation**

Pharma Letter 21 ["The deadly side effect of the COVID-19 IP waiver on trade secrets" July 20, https://www.thepharmaletter.com/article/the-deadly-side-effect-of-the-covid-19-ip-waiver-on-trade-secrets

While many commentators have focused on the effect of waiving patent protections, more troubling is the push to waive protections for undisclosed information or trade secrets. Trade secrets provide long-term protection for non-patentable inventions.8 This undisclosed information can include chemistry, manufacturing and control (CMC) information, and other proprietary data that is submitted by innovator companies to regulatory agencies for marketing approval of new drugs. **Waiving trade secret protections could cause irreparable harm to innovator companies. Once disclosed, trade secrets are effectively dead** - there is no longer anything secret to protect.9 When the waiver period ends, the trade secret would remain unprotectable - once the genie is out of the bottle, there is no putting it back in. Additionally, regulatory agencies typically require more information when approving first-in-class innovative therapeutics than required for well-established technologies. Put another way, **innovators have to disclose a greater amount of confidential information during regulatory review of new technologies.** Technologies, such as the mRNA vaccine, face particular harm if a country waives trade secret rights and forces disclosure of information. Forced disclosure would destroy any trade secret protections.

Pharma Letter 21 furthers ["The deadly side effect of the COVID-19 IP waiver on trade secrets" July 20, https://www.thepharmaletter.com/article/the-deadly-side-effect-of-the-covid-19-ip-waiver-on-trade-secrets

In the specific context of the Covid-19 mRNA vaccines, the underlying **trade secrets have broad future use** well beyond Covid-19.10 **If a country forces disclosure of trade secrets, it would provide a disincentive for investors to support new and innovative technologies that**, like the mRNA platform, **could provide beneficial drugs that could save us from the next pandemic**. Competitors who never previously invested in the technology would get a free ride and gain access to valuable confidential information without putting in any capital. Given these concerns, innovative biotech companies may respond in ways that might hamper vaccine rollout and harm future access to therapeutics. Innovators may view regulatory review in certain countries as “risky” because of a fear that any confidential information they submit will ultimately become public. Thus, instead of increasing access, such a move might result in decreased access to life saving drugs in the future.

#### The impact is extinction from bioterror.

#### Bioterror likely and possible now

Krstic 17. (Marko M. Krstic, Ministry of Internal Affairs of the Republic of Serbia. Published in the Military Techinical Courier--Vol 65, Issue 2--a multidisciplinary scientific journal of the Ministry of Defence of the Republic of Serbia. TENDENCY OF USING CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR WEAPONS FOR TERRORIST PURPOSES. 2017. scindeks-clanci.ceon.rs/data/pdf/0042-8469/2017/0042-84691702481K.pdf)

The studies of a few cases of earlier CBRN actions have led experts to identify the key characteristics of terrorist groups that could potentially have an interest to use these weapons. It is thought that conservatism is inherent in terrorist organizations, but it must not be forgotten that some terrorists are inclined to innovations in weapons and tactics, as well as to taking risks in actions or in the choice of weapons. Many experts agree that most terrorist organizations want to use proven methods to achieve desired effects. Innovations, especially in the field of CBRN weapons, often indicate terrorists are likely to be led by other factors rather than by pure curiosity and desire to experiment. For some individuals, repression and democratic and strong rule of law are positive determinants of the emergence of CBRN actions which points to a new and more complex global security environment with an increasing risk of terrorists trying to perform a CBRN attack. It is a frightening fact that a single terrorist or isolated terrorist group could improvise a biological weapon or use other ways to spread anthrax, smallpox or other biological agents and thereby cause mass casualties and destroy the health care system of a state. CBRN weapons are secretly shipped to terrorists or hostile governments and represent a significant and growing threat to many countries. Although the threat of CBRN attacks is widely recognized as the central issue of national security, most analysts assume that the primary danger is a threat of the military use of these weapons in conventional wars with tra-ditional military means while the threat of covert attacks, which include terrorism, is rashly and unfairly neglected. Covert attacks are difficult to deter or prevent and CBRN weapons suitable for this type of attack are available to a growing number of enemy states and groups. At the same time, restrictions on their use appear to be diminishing, and so-called new terrorists do not always escalate and become apparent only by using unconventional weapons. These weapons are easily spread or transmitted from person to person, have a high mortality rate and a potential impact on public health, causing mass casualties that can crush health systems and cause public panic and social disruption, thus requiring special efforts to suppress them. When assessing the threat of CBRN weapons, we should take into account the change in capacity to carry out terrorist attacks that are on the rise among countries and non-government elements. Analysts believe that the fear of chemical and biological terrorist attacks is excessive, they point out that, in the past, very few attacks involved these weapons, and even those few attempts that have occurred were mostly thwarted by the authorities. A relative ease with which biological weapons can be obtained, along with other current changes and turbulences in the world, sets the stage for another type of warfare in the 21st century. The potential for CBRN terrorism has widely grown since 11 September, when some of these materials were Fear of biological terrorism is certainly greater than the fear of the conventional forms of terrorism; some of these fears are justified and some are often exaggerated. Some agents are really very contagious and deadly, and if used properly, have a potential to result in casualties similar to those in a nuclear attack. Perhaps the scariest aspect of biological weapons is that the body is attacked without warning, people are afraid of the threat as it is invisible, and cannot be heard or felt. The history of warfare, terrorism and crime involving biological agents in the last century is considerably less dangerous and more deadly than the history of conventional warfare (Parachini, 2001). Today, some states and some terrorist groups can more easily overcome technological barriers due to the increased flow of information and access to previously unavailable technologies. Along with nuclear and chemical weapons, biological weapons are part of an unholy trinity of weapons of mass destruction (Davis, Johnson-Winegar, 2000, pp.15-28). The society is now faced with the threat of an apocalyptic and asymmetric war scenario in which kamikaze attackers are able to arm themselves with WMD4 without even having to have a "physical" weapon to create fear; they probably still prefer simple, proven methods: a stampede in an enclosed place, or just an explosive device, which will kill many people5 (Palmer, 2004, pp.3-9). Early detection and response to biological or chemical terrorism are crucial to solving this problem (U.S. Congress House, 2003, p.117).

#### Bioweapons cause extinction – next gen gene-editing guarantees extinction and governments have the tech, it’s only a question of whether they deploy it, but single instances of weaponization cause bioterror that escalates even if states never use the weapon

Griffin 16 [Matthew Griffin, described as “The Adviser behind the Advisers” and a “Young Kurzweil,” is the founder and CEO of the World Futures Forum and the 311 Institute, a global Futures and Deep Futures consultancy working between the dates of 2020 to 2070, and is an award winning futurist, and author of “Codex of the Future” series. Regularly featured in the global media, including AP, BBC, CNBC, Discovery, RT, and Viacom, Matthew’s ability to identify, track, and explain the impacts of hundreds of revolutionary emerging technologies on global culture, industry and society, is unparalleled. Recognised for the past six years as one of the world’s foremost futurists, innovation and strategy experts Matthew is an international speaker who helps governments, investors, multi-nationals and regulators around the world envision, build and lead an inclusive, sustainable future. A rare talent Matthew’s recent work includes mentoring Lunar XPrize teams, re-envisioning global education and training with the G20, and helping the world’s largest organisations envision and ideate the future of their products and services, industries, and countries. Matthew's clients include three Prime Ministers and several governments, including the G7, Accenture, Bain & Co, BCG, Credit Suisse, Dell EMC, Dentons, Deloitte, E&Y, GEMS, Huawei, JPMorgan Chase, KPMG, Lego, McKinsey, PWC, Qualcomm, SAP, Samsung, Sopra Steria, T-Mobile, and many more. "The ultimate bioweapon, scientists have developed an Extinction Gene.” https://www.fanaticalfuturist.com/2016/12/scientists-have-developed-the-ultimate-bioweapon-an-extinction-gene/]

How do you get a gene that kills a species to spread through a whole population?

You can either make your gene deadly, and therefore impossible to pass on, or not – and make it useless. The solution in the past has been to try to create what are known as “silent” genes that can spread throughout a population with no negative side effects, for example, either introducing a deadly weakness to a man made chemical into a species genome, or creating dormant but deadly genes that can be activated when the right trigger presents itself.

Recently, with the advent of advanced new in vivo gene editing technology, it’s become possible to make genes that seem to defy evolution – and that means we could soon start releasing animals carrying doomsday, or, extinction genes, that spread with astonishing speed and which eventually kill off an entire species, or even entire ecosystems.

It sounds like the stuff of science fiction and nightmares, and many argue that that is where this type of technology should stay.

However, such an animal exists, and it’s currently sitting in a laboratory at Imperial College London. An apocalyptic mosquito carrying a gene that could one day end its entire species. It represents a controversial proposal to end the scourge of Malaria, which kills hundreds of thousands of people each and every year, by wiping out the mosquitoes that spread the disease. It also represents a fundamentally new ability for humanity – the power to easily and selectively snuff out an entire subcategory of life on Earth. And the new name for this technology? Gene Drive.

Sounds rather benign doesn’t it? Except for the fact, when combined with an extinction gene, which for example, in this case introduces sterility into an entire population, it’s anything but. Gene Drive is a methodology that artificially increases a gene’s inheritance rate – these are found throughout nature, but despite decades of theorising, nobody, until now, and spurred on by the advent of CRISPR, a revolutionary gene editing technique that’s also goes under the moniker of the “Genesis Engine“, had a viable way to harness it. CRISPR’s “molecular scissors” are actually borrowed from viruses, allowing scientists to swap out one gene in a living organism for another gene, for example a doomsday gene, of their choice, and if you can get your gene spliced into the germ cells of a species then you can guarantee that the new trait will be passed down through the generations – classically, without Gene Drive, you can introduce only a 50% chance. The chance is 50% because germ cells, like virtually all other cell types in humans and mosquitoes, have two copies of our genome, so when scientists splice in their attack gene, it will end up sitting across from a second, totally normal copy of the gene it just replaced. This means that when the two copies get pulled apart to form the half-genomes of two new, separate sperm cells, only one of those new sperm cells will have the spliced in sequence. The other will carry the same gene it would have, regardless. So, if the spliced in gene lowers “evolutionary fitness”, then all that will happen is the other half of the offspring will thrive, and, as a result the infected “genetically crippled” individuals will be quickly bred out of the population. Imperial College’s doomsday mosquito gets around these problems by applying two innovations. First, it forces itself into 99% of a mosquito’s sperm cells, and thus into 99% of its offspring. It can do this by exploiting the natural process of the genomes proof reading abilities. Once the synthetic gene has been spliced in to replace a target gene, scientists can design the system to intentionally damage the other, natural copy of that target gene. Do enough damage and the cell’s machinery shows up to repair it back to normal. But what’s normal? Well, the DNA double helix provides a template and the repair enzymes end up using the spliced in gene as the guide for what the “natural version” is supposed to look like. Once the natural version of our gene has been “repaired” into the engineered version, both alleles, or copies, of the gene have the new man made sequence. Now, when the germ cell divides into two sperm cells, both those sperm cells get the modified version of the gene. So now, no matter which of those sperm cells goes on to fertilize an egg, the resulting mosquito will inherit the inserted attack gene. And the germ cells of those offspring get the Gene Drive effect, carrying it on to the next generation, and the next, and the next and so on and so on. But there’s still a problem. If infected mosquitoes give birth to 99% weakened mosquitoes, then those mosquitoes will simply get bred out by normal individuals from completely separate parents, and the attack will go nowhere. The key to this mosquito “bomb” is that while 99% of offspring get the engineered gene, that gene doesn’t cause any problems when there’s only one copy. So, try to follow the counting here. Scientists splice one copy of their experimental gene directly into a germ cell, where it then destroys and replaces the other copy and makes itself into the cell’s sole version of that gene. Then, the germ cell splits into two sperm cells, each of which has one infected copy in its half-sized genome. This infected half-genome then fertilizes a non-infected egg through normal breeding with another mosquito, combining to make a new mosquito with one copy of our synthetic gene, from our infected male’s sperm cell, and one copy of the natural gene, from the uninfected female’s egg cell. Now, 99% of our infected male’s offspring are infected with a single copy of the gene we inserted, and become carriers who display no adverse effects. Most regular genes spreading through the mosquito population by natural processes have to spread without the Gene Drive ability to power them into 99% of offspring very quickly, meaning that even very advantageous genes won’t be able to spread as fast as our silent, seemingly useless one. With no downside to bias evolution against it, our gene will spread through the population in just a scant few generations. Eventually, it will reach such a level of saturation in the population that these fully functioning carrier mosquitoes will begin to mate with one another through sheer chance, each donating infected sperm or egg cells 99% of the time, and thus giving rise to virtually all double-infected offspring. It’s these offspring, with both copies of the gene infected from conception, that express the genetic attack. The females of such mating events are completely sterile, while the males are free to continue breeding and passing on the disease. What this means is that by the time the Gene Drive starts creating a substantial number of sterile, double-infected mosquitoes, the overall population will already have been infected too heavily to breed it out. With Gene Drive to keep the gene spreading in spite of evolution, the process should continue until there are simply no viable female mosquitoes left to breed with. By the Imperial College team’s calculations, this gene drive approach could completely wipe out a population of mosquitoes in as little as 11 generations, or about a year.

To put this into perspective, in this case, this is a genetic modification that wipes out Malaria by wiping out the Mosquito. In human terms you could compare it to wiping out HIV by wiping out humans, and while there are arguments for both sides of the fence the fact that we now have the technology, and the fact, furthermore, that we’ve already used it to create what’s come to be known as the Doomsday Mosquito humanity will find itself in moral and ethical deadlock.

Do you cure the disease that kills millions of people by genetically engineering a species to go extinct? And if we can genetically engineer one species to go extinct then which species is next? Us?

The last one, as terrifying as it might sound isn’t as far fetched as you might think, and governments around the world have already put this “ultimate bioweapon” on their watch list. As our understanding of this technology and this capability advances, and as costs continue to plummet, it is increasingly easy to see how one day a terrorist group could use it to quietly and subtly kill off an entire race, or population, of people. And if you think that that’s a giant leap then worryingly it isn’t.

Thanks to the Human Genome Project we can already identify and categorise individuals with specific traits – everything from the colour of their hair to the colour of their skin – as well as their evolutionary lineage and thanks to the rise of CRISPR and Synthetic Biology we now have the tools we need to help us create entire artificial genomes from scratch. By 2036, for example, scientists believe that they might even be able to use CRISPR technology to make the worlds first artificial human (ethics allowing, which of course they won’t, or at least ion the short term).

If we have the technology to eliminate an entire species from the face of the Earth – forever, then the only thing preventing us from pulling the genetic trigger is our moral compass and our belief in our ability to control the outcome and the next time there’s a mass extinction event it might not be an asteroid that’s the culrpit.

#### Innovation is crucial to solving bioterror

**Marjanovic and Fejiao 20** Marjanovic, Sonja, and Carolina Feijao. Sonja Marjanovic, Ph.D., Judge Business School, University of Cambridge. Carolina Feijao, Ph.D. in biochemistry, University of Cambridge; M.Sc. in quantitative biology, Imperial College London; B.Sc. in biology, University of Lisbon. "Pharmaceutical Innovation for Infectious Disease Management: From Troubleshooting to Sustainable Models of Engagement." (2020). [Quality Control]

As key actors in the healthcare innovation landscape, pharmaceutical and life sci-ences companies have been called on to develop medicines, vaccines and diagnostics for pressing **public health challenges.** The COVID-19 crisis is one such challenge, but there are many others. For example, MERS, SARS, Ebola, Zika and avian and swine flu are also infectious diseases that represent public health threats. **Infectious agents such as anthrax, smallpox** and tularemia **could present threats in a bioterrorism con-text**.1 The **general threat** to public health that is **posed by antimicrobial resistance is also well-recognised** as an area in need of pharmaceutical innovation.

Innovating in response to these challenges does not always align well with pharmaceutical industry commercial models, shareholder expectations and compe-tition within the industry. However, the expertise, networks and infrastructure that industry has within its reach, as well as public expectations and the moral imperative, make pharmaceutical companies and the wider life sciences sector an **indispensable partner in the search for solutions that save lives.**

This perspective argues for the need to establish more sustainable and scalable ways of incentivising pharmaceu-tical innovation in response to infectious disease threats to public health. It considers both past and current examples of efforts to mobilise pharmaceutical innovation in high commercial risk areas, including in the context of current efforts to respond to the COVID-19 pandemic.

In global pandemic crises like COVID-19, the urgency and scale of the crisis – as well as the spotlight placed on pharmaceutical companies – mean that contributing to the search for effective medicines, vaccines or diagnostics is essential for socially responsible companies in the sec-tor.2 It is therefore unsurprising that we are seeing indus-try-wide efforts unfold at unprecedented scale and pace. Whereas there is always scope for more activity, industry is currently contributing in a variety of ways. Examples include pharmaceutical companies donating existing com-pounds to assess their utility in the fight against COVID-19;  screening existing compound libraries in-house or with partners to see if they can be repurposed; accelerating tri-als for potentially effective medicine or vaccine candidates; and in some cases rapidly accelerating in-house research and development to discover new treatments or vaccine agents and develop diagnostics tests.3,4 Pharmaceutical companies are collaborating with each other in some of these efforts **and participating in global R&D partnerships** (such as the Innovative Medicines Initiative effort to accel-erate the development of potential therapies for COVID-19) and supporting national efforts to expand diagnosis and testing capacity and **ensure affordable and ready access to potential solutions**.3,5,6

The primary purpose of such innovation is to benefit patients and wider population health. Although there are also reputational benefits from involvement that can be realised across the industry, there are likely to be rela-tively few companies that are ‘commercial’ winners. Those who might gain substantial revenues will be under pres-sure not to be seen as profiting from the pandemic. In the United Kingdom for example, GSK has stated that it does not expect to profit from its COVID-19 related activities and that any gains will be invested in supporting research and long-term pandemic preparedness, as well as in developing products that would be affordable in the world’s poorest countries.7 Similarly, in the United States AbbVie has waived intellectual property rights for an existing com-bination product that is being tested for therapeutic poten-tial against COVID-19, which would support affordability and allow for a supply of generics.8,9 Johnson & Johnson has stated that its potential vaccine – which is expected to begin trials – will be available on a not-for-profit basis during the pandemic.10

Pharma is mobilising substantial efforts to rise to the COVID-19 challenge at hand. However, we need to consider how pharmaceutical innovation for responding to emerging infectious diseases can best be enabled beyond the current crisis. Many public health threats (including those associated with other infectious diseases, **bioterror-ism agents and antimicrobial resistance)** are **urgently in need of pharma**ceutical **innovation**, even if their impacts are not as visible to society as COVID-19 is in the imme-diate term. The pharmaceutical industry has responded to previous public health emergencies associated with infec-tious disease in recent times – for example those associated with Ebola and Zika outbreaks.11 However, it has done so to a lesser scale than for COVID-19 and with contribu-tions from fewer companies. Similarly, levels of activity in response to the threat of antimicrobial resistance are still low.12 There are important policy questions as to whether – and how – industry could engage with such public health threats to an even greater extent under improved innova-tion conditions.

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## Counterplan: The US, the EU, and the member nations of the WTO ought to come together to strengthen and increase IPR protections internationally, especially in developing countries through new agreements and incentives

Stephen **Ezell** and Nigel **Cory,** Information Technology & Innovation Foundation (ITIF), "The Way Forward for Intellectual Property Internationally ", April 25,**19**,    https://itif.org/publications/2019/04/25/way-forward-intellectual-property-internationally

KEY TAKEAWAYS IP rights have come under attack from a loose coalition of academics, nongovernmental organizations, multilateral groups, and others whose opposition threatens to undermine innovation, growth, and progress on key global challenges. IP opponents make specious arguments to falsely portray IP as a tool to benefit large corporations and developed countries at the expense of human freedom, the diffusion of ideas, and growth in developing countries. To maximize global innovation, the international community needs to forge a stronger and more wide-ranging consensus on the importance of IP to every country—developed and developing alike. Countries with robust IP rights should work together on all fronts to push back against opponents, make the case that IP is central to global progress, and strengthen the international framework of IP rules, norms, and cooperation. INTRODUCTION The global economy, including developed and developing nations alike, is becoming more innovation-driven—powered by knowledge, creativity, and technology, each of which is fundamentally supported by intellectual property (IP) and intellectual property rights (IPR) protections. And yet, over the past two decades, the policy debate over IP’s role has come under an increasingly active and coordinated attack, driven by IPR skeptics and opponents hailing from a variety of academic and multilateral institutions, nongovernmental organizations (NGOs), and some developing nations and policymakers therein. They have done much to advance a false narrative that strong and effective IP is a win-lose, buy-sell proposition, which only helps the developed “North” (as opposed to the underdeveloped “South”). Yet if the international community is going to maximize global innovation—something that is critical if we are to make faster progress on commonly shared global challenges such as climate change, disease prevention and treatment, and economic growth—we will need a stronger and more wide-ranging consensus on the importance of IP to every country throughout the world. To maximize the role intellectual property can play in enabling innovation across the world, the countries that best recognize the essential link between the two—including the United States, Commonwealth nations, European Union members, Japan, Korea, Singapore, and others—need to revise and amplify efforts to build out and strengthen the international framework of intellectual property rules, norms, and cooperation. A new way ahead is needed to overcome and move beyond the status quo stalemate that defines the intellectual debate over IP in the global economy, which remains starkly and deeply divided along developed-developing country lines that were largely set 20 years ago with the signing of the Trade Related Aspects of Intellectual Property Rights (TRIPS) agreement at the World Trade Organization (WTO). Despite tremendous changes in technologies and business practices, as well as the need for greater global innovation to help address global policy challenges, the international framework and debate around IP largely pivots around the positions of IPR opponents who favor weak or nonexistent protections and enforcement, and who view IP as enabling monopolistic rents imposed by wealthy multinationals and rich nations. Playing the victim card, they seek to portray IPR as exploitative and favoring the rich North at the expense of the poor South. Opponents of stronger IP rights further advance the view that weak protection and forced redistribution of IP are shortcuts to economic development or paths to address important international challenges such as global warming and human health. But this framing—which is increasingly reflected in global dialogues—is fundamentally misguided and fails to recognize the long-term negative impacts such a policy framing would have on global innovation and productivity, while distracting attention and resources from far-preferable domestic policies that could genuinely support the development, deployment, adoption, and absorption of new technologies by emerging economies. This report begins by establishing the essential link between IP and innovation (and trade and innovation), examining the scholarly literature documenting how robust IPRs benefit all nations (developed and developing alike), and by explaining why robust IPRs are essential to maximize the output of innovation globally, thus making IP a legitimate and fundamental component of trade agreements and global trade governance. It then conceptualizes and characterizes opponents’ ideological opposition to robust intellectual property rights, catalogs the different types of groups and organizations opposed to IPR, and shows how the debate over IP played out in recent negotiations over the Trans-Pacific Partnership (TPP) trade agreement. Finally, the report provides recommendations for the world’s leading innovation nations to achieve a more robust intellectual property regime, and ultimately greater levels of innovation, internationally. The report recommends that advocates of innovation and robust IPRs do the following: Reframe the debate to make the case that global trade is about maximizing global innovation and that ensuring robust intellectual property rights and protections are key to this; Directly rebut the most egregious anti-intellectual property assertions of IP opponents; Implement new strategies to advance a stronger global IPR regime, including an “all-points” strategy; Engage more like-minded allies; and Proactively assist developing nations with their efforts to become more innovation-driven economies, in part by increasing funding for targeted technical assistance and capacity building around IPR. THE GROWTH OF INNOVATION AND INTELLECTUAL PROPERTY Innovation represents the creation of new value for the world, whether that “value” is created through new technologies, new business models, new products and services, or new forms of social entrepreneurship. Innovation should be at the top of policymakers’ agenda, as it is the principal driver of both long-term economic growth and improvements in quality of life. For instance, the U.S. Department of Commerce reported in 2010 that technological innovation can be linked to three-quarters of the U.S. growth rate since the end of World War II.1 Similarly, two-thirds of United Kingdom private-sector productivity growth between 2000 and 2007 resulted from innovation.2 Intellectual property plays a key role in driving innovation and economic growth.3 Everywhere we go, we are surrounded by intellectual property. Trademarks signal the origin of products to consumers. Designs specify how products look. Copyrights enable artistic creations, such as books, music, paintings, photos, and films. Patents protect technical inventions in all fields of technology. Intellectual property’s role has evolved into a force that influences a wide swath of demand and sectors, making it an increasingly influential framework condition that affects not only innovation, but also trade, competition, taxes, and other areas.4 The reality is intellectual property is mainstream and pervasive. In today’s economy, the generation and management of knowledge plays a predominant role in wealth creation, particularly when compared with traditional factors of production such as land, labor, and capital.5 IP plays a key role in driving innovation and economic growth. Intellectual property represents the main value component of many trade transactions.6 Indeed, global trade flows are increasingly dominated by knowledge-intensive goods and services, which are growing faster than capital- and labor-intensive flows.7 Global cross-border exports of commercial knowledge- and technology-intensive goods and services reached an estimated $4 trillion in 2014, consisting of $1.6 trillion of commercial knowledge-intensive services and $2.4 trillion of exports of high-tech products.8 In fact, knowledge—rather than labor, capital, or resource-intensive components—represents about one-half of current global trade flows; and this knowledge-intensive component is growing faster, at about 1.3 times the rate of labor-intensive flows.9 This is partly due to the rise of knowledge-intensive business services—such as computer-related services (e.g., software and information processing), research and development (R&D) services, and business services (e.g., legal, accounting, and advertising)—which provide critical intermediate inputs into other economic activity. Research estimates that while services account for just 20 percent of gross exports worldwide, the share more than doubles to 41 percent when considering value-added exports.10 Although developed economies as a group dominate knowledge-intensive flows, developing countries’ share is growing rapidly. China’s knowledge-intensive flows are the world’s second largest.11 Indicative of a broadening distribution, a recent European Commission (EC) and Organization for Economic Cooperation and Development (OECD) report into intellectual property and the world’s top 2,000 companies by R&D spending showed these companies’ headquarters were distributed across 44 countries, while their subsidiaries were spread across more than 100 countries.12 While multinationals may only represent one source of R&D investment, the broader trend is evident as emerging economies’ world share of R&D expenditure increased from 12 percent in 1992 to 26 percent in 2010. Furthermore, as a common measure of innovative activity, patent applications filed by the residents of emerging economies at their national offices grew by 10.4 percent annually from 1992 to 2011, compared with 2.3 percent growth for OECD countries.13 In 2015, the World Intellectual Property Organization (WIPO) reported that IP offices in Asia received the bulk of world IP filings (for industrial designs, patents, trademarks, and utility models).14 In China alone, the number of patents increased from 600,000 in 2010 to almost 1.5 million in 2014, while the country also has the most active trademarks in the world and one-third of the world’s industrial design registrations. In 2015, for the second consecutive year, Huawei Technologies of China was the top Patent Cooperation Treaty applicant, with 3,898 applications published.15 IP represents the main value component of many trade transactions. Flows of knowledge and technology lie at the center of new networks driving production and innovation, notably with regard to global value chains (GVCs) and global innovation networks (GINs). GVCs refer to how companies move “material” goods and services (both final and intermediate) across borders. GINs represent how companies transfer intangibles and immaterial assets between countries. Of the two, GVCs are more prevalent and sophisticated as they reflect the trend of companies establishing international production and distribution networks for physical goods, while GINs relate to the more recent trend of firms developing and deploying intangible goods and R&D alongside these production networks, or elsewhere as part of dispersed, specialized global operations. The rise of GVCs and GINs reflects how technology and globalization have allowed businesses to change how they structure and manage their design, production, marketing, customer support, and other processes in order to optimize their competitiveness and innovation. GINs are emerging as companies seek to leverage foreign knowledge, technology, and human capital by establishing international R&D facilities and local collaborative partnerships and networks.16 This not only reflects a change in how companies structure their own R&D, but in how they pursue innovation, as many companies open up their processes to greater collaboration and engagement with outside partners.17 Chemicals, electronics, business services, and wholesale and retail trade are some of the sectors most actively pursuing co-inventions and GINs. Companies in these and other sectors are establishing new interdisciplinary and cross-sectoral arrangements with suppliers, customers, universities, and government institutions. Indicative of GINs is the rise of international co-inventions. The number of international co-inventions (wherein patents are filed in multiple countries under the Patent Cooperation Treaty) has increased from fewer than 2,000 in 1995 to 12,000 in 2013.18 While North America and Europe are home to many of these collaborations, a growing share come from Asia. Asia’s intra-regional and extra-regional co-inventions have both increased as these countries invest more in science, technology, and innovation, and as more European and American companies establish research and production networks throughout the region. Given the global nature of these networks, multinational corporations play a key role in driving this type of international innovation, although they are not the sole driver.19 While GVCs and GINs represent relatively new constructs, there is early evidence they will be central to future deliberations around trade and innovation policy. World Bank modeling shows a strong and positive correlation between bilateral trade and co-invention, suggesting interdependence between GVCs and GINs at the country level.20 The inverse also holds true in that having no trade relationship with a partner country strongly decreases the propensity and extent of co-invention with that country. Furthermore, in contrast to previous research, the results indicate co-invention is more likely the larger the technological gap between trade partners, as less-innovative countries purposely set up links with stronger partners in order to access knowledge. INTELLECTUAL PROPERTY UNDERPINS INNOVATION AND GROWTH Intellectual property rights arrangements are well recognized, going back to the Middle Ages, as enabling innovators to earn the returns necessary to continue to innovate and promote the availability of leading-edge technologies. Nobel laureate economist Douglas North, one of the foremost scholars of economic history, argues that the introduction of intellectual property rights had one of the most profound impacts on spurring economic growth in human history. North points out that average global economic growth rates for about one and a half millennia prior to the Industrial Revolution were essentially zero. Eighteenth-century elites in England had practically the same per capita income as their counterparts in third-century Rome.21 North has shown that the inflection point toward greater economic growth was the widespread development of patent systems in the 19th century.22 Gregory Clark, in his seminal book, Farewell to Alms: A Brief Economic History of the World, reached a similar conclusion that the introduction of IPRs was catalytic to turbo-charging global economic growth.23 Robust intellectual property rights spur innovative activity by increasing the appropriability of the returns to innovation, enabling innovators to capture enough of the benefits of their own innovative activity to justify taking considerable risks. By raising the private rate of return closer to the social rate of return, intellectual property rights address the knowledge-asset incentive problem, allowing inventors to realize economic gain from their inventions, thereby catalyzing investment in knowledge creation. If innovators know that most of the benefits from their innovations would go to others without compensation, they would be much less likely and capable of engaging in future innovations. In addition, as they capture a larger portion of the benefits of their innovative activity, innovating companies obtain the resources to pursue the next generation of innovative activities. IP thus produces a number of positive benefits, including: 1) creating powerful incentives for domestic innovation; 2) inducing knowledge spillovers that help others to innovate; 3) ensuring a country’s companies can focus on operating productively and innovating, instead of having to devote an undue amount of their time and resources to protecting their IP in an environment where it’s at risk; 4) promoting the international diffusion of technology, innovation, and knowhow; and 5) boosting a country’s levels of research and development, inbound foreign direct investment (FDI), and exports of goods and services.24 Robust intellectual property rights spur innovative activity by increasing the appropriability of the returns to innovation, enabling innovators to capture enough of the benefits of their own innovative activity to justify taking considerable risks. The evidence shows that strong intellectual property rights protections are vitally important for both developed and developing countries alike. As the definitive 2010 OECD review of the effects of intellectual property rights protections on developing countries, “Policy Complements to the Strengthening of IPRs in Developing Countries” found, “The results point to a tendency for IPR reform to deliver positive economic results.”25 The OECD study found that developing-country IPR reforms concerning patent protection have tended to deliver the most substantial results, although the results for copyright reform and trademark reform are also positive and significant. But to have the greatest impact on economic growth, IPR reforms must occur concomitantly with other positive complements, particularly ones regarding inputs for innovative and productive processes and the ability to conduct business. These include policies that influence the macro-environment for firms as well as the availability of resources (e.g., related to education), a country’s legal and institutional conditions, and fiscal incentives.26 The evidence shows that strong intellectual property rights protections are vitally important for both developed and developing countries alike. The following section details the broad swath of academic literature reviewing the relationships between IPR strengthening and trade, FDI, and technology transfer; IPR reform and innovation and R&D; and IPR reform and exports and industry growth, revealing the benefits of stronger IPR protections for developed and developing countries alike. IPRs Strengthen Trade, FDI, and Technology Transfer A wealth of academic research has documented the relationship between the strength of a country’s intellectual property protections and the extent of trade, foreign direct investment, and technology transfer it enjoys. Strengthening IPR protection has been shown to correlate with increased trade.27 For instance, Fink and Primo Braga found that IPR protection is positively associated with international trade flows, in particular of manufactured, non-fuel imports.28 Other studies have found a positive association between IPR protection and trade flows in high-technology products.29 Likewise, strengthening of IPR protection has also been connected with increased inflows of FDI. Cavazos Cepeda et al. found that a 1 percent increase in the protection of IPRs as measured by the Patent Rights Index (a measure of the strength of countries’ IPR regimes) is associated with a 2.8 percent increase in the inflow of FDI.30 Similarly, a 1 percent increase in trademark protection levels is associated with a 3.8 percent increase in incoming FDI; and a 1 percent increase in copyright protection yields a 6.8 percent increase in FDI.31 Moreover, the researchers identified a virtuous cycle between FDI and protection of IP, whereby improvements in the IPR environment are associated with improved economic performance—in particular with respect to FDI—and, in turn, further improvements in the IPR environment. Park and Lippoldt showed that stronger IPRs in developing countries are associated with an increase of technology-intensive FDI, while Awokuse and Yin provided a concrete example concerning the relationship of IPR protection in China to FDI inflows, concluding that IPR reforms in China have had a positive and significant effect on inbound FDI.32 There is also evidence that countries with similar levels of intellectual property protection trade more with one another.33 Academic research also signals a strong correlation between IPR and technology transfer. Lippoldt showed that IPR strengthening in countries—particularly with respect to patents—is associated with increased technology transfer via trade and investment.34 Research has revealed that a country’s level of intellectual property protection considerably affects whether foreign firms will transfer technology into it.35 That matters because the welfare gains from the importation of technology via innovative products, while differing across countries, can be substantial.36 For instance, foreign sources of technology account for over 90 percent of domestic productivity growth in all but a handful of countries.37 The research on this matter is clear and consistent. For example, a 1986 United Nations Conference on Trade and Development (UNCTAD) study found that direct investment in new technology areas such as computer software, semiconductors, and biotechnology is supported by stronger intellectual property rights policy regimes.38 (However, as this report later clarifies, subsequent UNCTAD reports have lamentably taken a more skeptical view toward IP.) A 1989 study by the United Nations Commission on Transnational Corporations (UNCTC) found that weak IP rights reduce computer software direct investment; and a 1990 study by UNCTC found that weak IP rights reduce pharmaceutical investment.39 Mansfield conducted firm-level surveys and found that perceptions of strong IP rights abroad have a positive effect on incentives to transfer technologies abroad. Likewise, survey research by the World Bank’s International Finance Corporation found that, with variations by sector, country, and technology, at least 25 percent of American and Japanese high-tech firms refuse to directly invest, or enter into a joint venture, in developing countries with weak intellectual property rights; and a later study confirmed those survey findings with actual foreign direct investment data.40 And an Institute for International Economics study of World Bank data concluded that weak intellectual property rights reduce flows of all these commercial activities, regardless of nations’ levels of economic development.41 A wealth of academic research has documented the relationship between the strength of a country’s intellectual property protections and the extent of trade, foreign direct investment, and technology transfer it enjoys. Studies have also shown how the benefits of intellectual property extend to developing countries. Diwan and Rodrik demonstrated that stronger patent rights in developing countries give enterprises from developed countries a greater incentive to research and introduce technologies appropriate to developing countries.42 Similarly, Taylor showed that weak patent rights in developing countries lead enterprises from developed countries to introduce less-than-best-practice technologies to developing countries.43 Interestingly, the relationship goes in both directions. Branstetter and Saggi showed that strengthened IPR protection not only improves the investment climate in the implementing countries, but also leads to increased FDI in the country producing the original innovation.44 They concluded that IPR reform in the “global South” (e.g., developing countries) may be associated with FDI increases in the “global North” (e.g., developed countries). As northern firms shift their production to southern affiliates, this FDI accelerates southern industrial development, creating a cyclical feedback mechanism that also benefits the North. Another study by Liao and Wong, which focused on firm-level analysis, highlights the inter-relationship of IPR reform in developed and developing countries. Their study concluded that developing countries can entice technology transfer from the North by providing IPR protection for incoming products (although they note there is a need for redoubled R&D efforts in developed countries to spur needed innovations).45 IPRs Strengthen Innovation Intellectual property rights power innovation. For instance, analyzing the level of intellectual property protections (via the World Economic Forum’s Global Competitiveness reports) and creative outputs (via the Global Innovation Index) shows that counties with stronger IP protection have more creative outputs (in terms of intangible assets and creative goods and services in a nation’s media, printing and publishing, and entertainment industries, including online), even at varying levels of development.46 IPR reforms also introduce strong incentives for domestic innovation. Sherwood, using case studies from 18 developing countries, concluded that poor provision of intellectual property rights deters local innovation and risk-taking.47 In contrast, IPR reform has been associated with increased innovative activity, as measured by domestic patent filings, albeit with some variation across countries and sectors.48 For example, Ryan, in a study of biomedical innovations and patent reform in Brazil, found that patents provided incentives for innovation investments and facilitated the functioning of technology markets.49 Park and Lippoldt also observed that the provision of adequate protection for IPRs can help to stimulate local innovation, in some cases building on the transfer of technologies that provide inputs and spillovers.50 In other words, local innovators are introduced to technologies first through the technology transfer that takes place in an environment wherein protection of IPRs is assured; then, they may build on those ideas to create an evolved product or develop alternate approaches (i.e., to innovate). Related research finds that trade in technology—through channels including imports, foreign direct investment, and technology licensing—improves the quality of developing-country innovation by increasing the pool of ideas and efficiency of innovation by encouraging the division of innovative labor and specialization.51 However, Maskus notes that without protection from potential abuse of their newly developed technologies, foreign enterprises may be less willing to reveal technical information associated with their innovations.52 The protection of patents and trade secrets provides necessary legal assurances for firms wishing to reveal proprietary characteristics of technologies to subsidiaries and licensees via contracts. Counties with stronger IP protection have more creative outputs (in terms of intangible assets and creative goods and services in a nation’s media, printing and publishing, and entertainment industries, including online), even at varying levels of development. The relationship between IPR rights and innovation can also be seen in studies of how the introduction of stronger IPR laws, with regard to patents, copyrights, and trademarks, affect R&D activity in an economy. Studies by Varsakelis and by Kanwar and Evenson found that R&D to GDP ratios are positively related to the strength of patent rights, and are conditional on other factors.53 Cavazos Cepeda et al. found a positive influence of IPRs on the level of R&D in an economy, with each 1 percent increase in the level of protection of IPRs in an economy (as measured by improvements to a country’s score in the Patent Rights Index) equating to, on average, a 0.7 percent increase in the domestic level of R&D.54 Likewise, a 1 percent increase in copyright protection was associated with a 3.3 percent increase in domestic R&D. Similarly, when trademark protection increased by 1 percent, there was an associated R&D increase of 1.4 percent. As the authors concluded, “Increases in the protection of the IPRs carried economic benefits in the form of higher inflows of FDI, and increases in the levels of both domestically conducted R&D and service imports as measured by licensing fees.”55 As Jackson summarized, regarding the relationship between IPR reform and both innovation and R&D, and FDI, “In addition to spurring domestic innovation, strong intellectual property rights can increase incentives for foreign direct investment which in turn also leads to economic growth.”56 BOX 1: INNOVATE FOR HEALTH: IP IS NOT THE PROBLEM, BUT PART OF THE SOLUTION Many opponents of robust IPR rights view them as antithetical to the interests of developing countries in terms of access to medicines or the provision of national health care services. Yet the reality is that stronger IPR rights in developing nations actually unleash the power of developing-country innovators to contribute to solving health challenges both in their own nations and across the global economy. First, opponents of IP fail to recognize that intellectual property rights matter for health care innovation in emerging economies. An Information Technology and Innovation Foundation (ITIF) and George Mason University Center for Intellectual Property Protection report, “How Innovators Are Solving Global Health Challenges,” provides 25 case studies that show innovators in developing countries relying on IP to invent and bring solutions to market.57 The 25 case studies revealed a number of key themes, including that there is opportunity in adapting health care interventions for developing-country environments where resources and infrastructure are scarce, and that local innovation and IP can contribute substantially toward providing both affordable and robust tests for diagnosing diseases and affordable interventions to meet basic needs in challenging environments. Second, opponents of IP tend to ignore broader systemic issues that contribute to poor health care outcomes in developing countries. While cost is a central factor for policymakers in all countries, given resource scarcity, these trade-offs are not unique to health. The greater the resource scarcity, the greater the need for innovation. One of the biggest challenges policymakers and innovators in developing countries confront again and again is scarcity—in access to trained professionals, in transportation, and in other infrastructure. For example, reports estimate that as many as 1 billion people lack access to essential health care because of a shortage of trained health professionals.58 A 2014 World Health Organization study estimated a shortage of 7 million public health care workers, with that number expected to rise to 13 million by 2035.59 More than 80 countries currently fail to meet the basic threshold of 23 skilled health professionals per 10,000 citizens.60 The challenge is even more daunting when it comes to specialists. For instance, Cameroon has fewer than 50 cardiologists supporting a population of over 23 million citizens.61 And Ethiopia, a country of some 90 million residents, is served by a single radiation-treatment center located in the capital of Addis Ababa.62 In other instances, individuals lack access to essential medicines, with cost being a relatively small part of the problem. For instance, in 2014, researchers at the University of Utrecht in the Netherlands found that, on average, essential medicines are available in public-sector facilities in developing countries only 40 percent of the time.63 Again, the cost of medicines is far from the most serious problem in the provision of health care services in developing nations. Indeed, the vast majority of drugs—at least 95 percent—on the World Health Organization’s Essential Medicines list are off-patent, and thus potentially available in generic versions.64 The problem, in much larger part, stems from countries’ underdeveloped health systems and the fact that many people live in rural areas far from care. Stronger IP rights create an environment wherein entrepreneurs can innovate to meet health challenges in their own nations, the benefits thereof spilling over to benefit the entire international community. IPRs Strengthen Exports and Industry Growth Academic research has also found that stronger IPR protections support exports from developing countries and faster growth rates of certain industries. Yang and Kuo argue that stronger IPR protection improves the export performance of firms benefitting from technology transfer. And in their research, Cavazos Cepeda et al. found that trademark protection has a statistically significant association in relation to the export turnover, sales, and total assets of firms studied. They also found a significant association between copyrights and export turnover. Moreover, they found “a positive influence of patent right protection on export turnover (e.g., sales) under certain specifications with respect to complementary policies.”65 In cross-country studies, researchers have found that stronger patent rights are associated with faster company growth in IP-intensive industries such as pharmaceuticals. In fact, during the early 1990s, a one-standard-deviation increase in patent rights was associated with an increase in firm growth of 0.69 percent (an advantage amounting to nearly one-fifth of the average industry growth rate of 3.7 percent).66 Consequences of Countries Not Enacting Robust IPR Protections and Enforcement Nations that have not implemented—or do not enforce—robust intellectual property rights protections end up harming their economic development in at least three principle ways. First, they deter future innovative activity. Second, they discourage trade and foreign direct investment, which only hurts their own consumers and businesses, by both limiting their choices and inhibiting their enterprises’ ability to access best-of-breed technologies that are vital to boosting domestic productivity. Third, in countries with weak IP protections, firms are forced to invest undue amounts of resources in protection rather than invention. Ironically, developing countries’ own economic development opportunities and intellectual property development potential are inhibited by their own weak intellectual property protections. For instance, the lack of effective protection for intellectual property rights in China has limited the introduction of advanced technology and innovation investments by foreign companies, thereby reducing potential benefits to local innovation capacity.67 As Cavazos Cepeda et al. found in a case study of IPR protections in that economy, “China has made progress in strengthening the protection of intellectual property over the past two decades, as attested to by indicators such as the Patent Rights Index…. However, uncertainty around the protection of intellectual property [remains] an important deterrent for foreign as well as domestic firms engaging in R&D-related activities.”68 Ironically, developing countries’ own economic development opportunities and intellectual property development potential are inhibited by their own weak intellectual property protections. Some countries not on the global technological frontier have used a strategy of intellectual property theft as part of attempts to catch up. To be sure, while researchers such as Grossman and Helpman have found that intellectual property theft can indeed help countries in the short run, they also found that intellectual property theft stifles incentives to embark on home-grown technology development, thus hurting countries and making IP theft a very poor strategy in the long run.69 Ultimately, as Cavazos Cepeda et al. concluded, countries in which “uncertainties in the IP environment persist [are] likely to fall short of their innovation potential,” as some firms may withdraw from innovative activities or divert energy into alternative approaches for IP protection.70 Nevertheless, some developing nations persist in believing that having weak IP protections enables them to acquire valuable IP for a few high-tech exporting industries that can drive their economic growth. But aside from this representing, at best, a short-term strategy, it ignores evidence showing productivity growth within all businesses across a country’s economy truly drives growth, versus changing the mix of a country’s enterprises and industries toward higher-productivity ones. Indeed, about 80 percent of productivity growth comes from organizations improving their own productivity, and only about 20 percent comes from more-productive organizations replacing less-productive ones.71 McKinsey’s 2010 report, “How to Compete and Grow: A Sector Guide to Policy,” affirms this, finding that countries that outperform their peers do not have a more favorable sector mix, but rather have individual sectors that are more competitive and productive.72 In other words, it is not share that matters; it is productivity growth across all sectors. As such, instituting a weak IP regime in order to boost a few innovation-based industries runs the risk of ignoring the real engine of economic growth for developing countries: across-the-board productivity growth. Developing countries can often do better by following a technology absorption or adoption strategy that seeks to help their enterprises catch up to the global frontier and best practice in application and use of already-existing technologies and production processes in their nations’ key industries. That is why a critical mission for national innovation foundations in developing nations should be to promote “absorptive capacity” and help firms—especially small and medium-sized enterprises (SMEs)—increase their productivity by adopting best practices, processes, and technologies; training firms and entrepreneurs in innovation skills and competencies; promoting knowledge and technology transfer from universities and national laboratories to the private sector; and helping link domestic firms into global supply chains.73 IMPLICATIONS FOR NATIONAL AND GLOBAL INNOVATION As noted, robust intellectual property rights spur innovative activity by increasing the appropriability of the returns from innovation. Moreover, as they capture a larger portion of the benefits of their innovative activity, innovating companies obtain the resources to invest in the next generation of innovative activities. However, if competitors are able to enter and/or to remain in a market because they obtain an innovator’s intellectual property at less than the fair market price (either through theft, coerced transfer, or government-mandated discounts), they are able to siphon off revenues that would otherwise go to innovators. Therefore, what’s at stake in the debate over intellectual property is nothing less than an essential framework condition for global trade and innovation.74 With innovation truly the most important “good” for the future of the global economy and society, policymakers cannot afford to take it for granted. For innovation does not fall like “manna from heaven,” as economist Robert Solow once suggested. Rather, innovation is the product not only of market incentives for innovators (enabled by IP protection), but also of other incentives, rules, and policies that collectively comprise complex national innovation systems. These include policies related not only to IP but also to scientific research, technology commercialization, investments in information and communications technology, education and skills development, taxes, trade, government procurement, competition, and regulatory policies. Moreover, in an interconnected world, innovations in one country get applied in virtually all nations. For example, if an innovator in South Korea comes up with much better battery technology, the entire world benefits. What’s at stake in the debate over intellectual property is nothing less than an essential framework condition for global trade and innovation. As ITIF argues in “Contributors and Detractors: Ranking Countries’ Impact on Global Innovation,” how countries decide, individually and collectively, to pursue innovation-based growth strategies holds significant implications for the global innovation system, given the world is essentially in the adolescent stages of a truly integrated global economy.75 In large part, this is true because the policies countries enact to maximize their own innovation may not be the ones best suited to maximizing the global production of innovation, particularly when such policies are mercantilist in nature. As the Australian innovation economist Jason Potts noted, “National innovation policies strategically interact to form emergent de facto innovation policies.… The economics of the innovation problem—market failure in producing new knowledge and knowledge as a public goods problem—is inherently global because new ideas and their externalities are not easily contained by national borders.”76 Countries that systemically prevent innovators from fully realizing the economic gains from their inventions are following a destructive, beggar-thy-neighbor “innovation mercantilism” that reduces global innovation. These countries seek prosperity by imposing protectionist, trade-distorting policies that tip market scales to expand domestic technology production, including by purposely weakening intellectual property rules and enforcement, compulsorily forcing companies to transfer the rights to their intellectual property or technology, or through the outright theft of intellectual property.77 At the heart of many IPR opponents and innovation mercantilist country strategies is the discriminatory treatment of IP held locally versus by foreign firms. Countries using these strategies target foreign IP as part of an industrial strategy that seeks to help domestic firms acquire or imitate foreign technologies in order to allow them to move toward the technological frontier without paying for technology or paying below market value for it. In this way, innovation mercantilist countries use both sides of the “pro” and “anti” IP debate—they recognize the role IP plays in technological and economic development, but undermine foreign IP in order to obtain it in a zero-sum fashion, although they then support protection for exports from their domestic firms (including the IP embedded in their goods and services), as well as expect fair treatment in foreign markets for the IP held by their firms. (In other words, such countries want strong IP rules to apply only to other nations.) Yet innovation mercantilism is a zero-sum game: It may bolster a country’s own economy, particularly in the short-term, but usually reduces the global stock of knowledge and innovation. Innovation mercantilism does this as it prevents successful innovators from achieving the higher-than-normal profits that are necessary to incentivize the initial risky investment (so-called “Schumpeterian profits”). Because innovation is about risk and uncertainty, failure is common; for every Apple succeeding with an iPad, there are many IT companies that fail. Moreover, innovation industries face not just loss of market share from competition, but the loss of existence. This reality evokes Schumpeter’s dictum that “every piece of business strategy must be understood against the perennial gale of creative destruction.” For if firms were assured at best only normal returns on successful innovations, none of them would undertake the enormous risk of investing in them. This is especially the case in many developing countries where innovation is sorely needed. A key reason innovation mercantilist practices are so damaging to global innovation is they disrupt and distort the economics of innovation-based industries. In particular, innovation-based enterprises and industries depend on the profits earned from one generation of innovation to finance investment in the next. For instance, the two most R&D-intensive industries in the United States are life sciences and semiconductors, each regularly investing over 20 percent of their revenues into R&D annually. They must do so because, as innovation-based industries, they compete predominantly not on lower costs but by inventing new-to-the-world, next-generation products. That is why the OECD finds that, “There exists a high degree of correlation between pharmaceutical sales revenues and R&D expenditures.”78 (In fact, there exists an almost one-to-one (0.97) correlation between pharmaceutical R&D expenditures and sales.)79 This also explains why academic research shows a statistically significant relationship between a bio-pharma enterprise’s profits from the previous year and its R&D expenditures in the current year and why the pharmaceutical firms with the greatest sales are also the ones with the largest R&D investments.80 However, when countries implement practices such as introducing excess, non-market based competition into an economy or forced localization policies (i.e., requiring local production as a condition of market access) it distorts the economics of innovation-based industries, whether by enabling new entrants who do not have to compete on market-based terms or by adding unnecessary costs (i.e., forcing companies to open local data centers for the provision of digital services to comply with data localization policies). For instance, the Chinese government’s investment of over $160 billion as part of its “2014 National Guidelines for Development and Promotion of the IC Industry,” which seeks to develop a Chinese semiconductor industry heavily backed by government funds, introduces non-market-based competition that has the potential to denude innovative firms’ ability to compete in global markets.81 As ITIF writes in, “China-Induced Global Overcapacity an Increasing Threat to High-Tech Industries,” rampant Chinese subsidies have distorted markets for a wide variety of goods, from solar panels and wind turbines to steel and auto parts.82 Similarly, for years the Korean government propped up DRAM producer Hynix, which went bankrupt and was saved twice by its creditor banks, which were majority-owned by the government. While this helped the Korean memory chip industry, it hurt the global chip industry because it contributed to significant global overcapacity, reducing sales and margins for other players.83 While subsidies and state-induced overcapacity harm innovation-based industries, so too does IP infringement, IP theft, or the forced disclosure or transfer of technology or intellectual property as a condition of market access for firms, as ITIF writes in “Global IP Infringement’s Significant Cost to the U.S. Economy.”84 For instance, according to the United States Trade Representative’s Office, Chinese theft of American IP currently costs the United States between $225 billion and $600 billion annually.85 Similarly, analysts estimate the cost of global cybercrime at over $600 billion annually.86 This is devastating for innovation. Because innovation-based industries fundamentally depend on knowledge and IP—software depends on source code, while biologics and pharmaceutical drugs depend on novel molecular or chemical compounds—IP theft fundamentally threatens the very existence of innovation-based firms, for if their IP is pilfered and used against them by competitors who have not had to incur the significant up-front R&D investment costs needed to create innovative products in the first place or can sell products or services with pilfered IP more cheaply, it deprives the genuine innovators from the ability to generate the market-based revenues they depend on to not only recoup their expensive upfront R&D costs, but finance future generations of innovations. These reasons explain why innovation mercantilist policies such as IP theft or coerced IP disclosure, excessive subsidies, introduction of non-market-based competition (among many others) are so insidious and deleterious for innovation-based industries. Innovation mercantilist countries seek the easy path of not having to pay market price, or to just not pay at all, for the latest intellectual property and the technology it delivers. Innovation mercantilists and IPR opponents further assume that firms can master all components of new technologies, including codified knowledge and knowhow, without the participation of foreign rights holders.87 Thus, the intention of an innovation mercantilist strategy is not so much to maximize national- and global-level innovation and the role it plays in driving long-term economic growth, but to ensure innovation’s outputs—ideas, goods, services, and exports—are produced in one’s own country. From this view, “innovation” really just helps countries replace imports with domestic production and unfairly promote exports. Innovation mercantilist countries seek the easy path of not having to pay market price, or to just not pay at all, for the latest intellectual property and the technology it delivers. Yet this only harms global innovation (see insert for a brief review of “green mercantilism”). BOX 2: THE MISGUIDED FOCUS OF THE GREEN MERCANTILISTS The debate around intellectual property and climate change in international fora (such as the UN Sustainable Development Goals) is another example of a misguided focus on short-term goals (in this instance, low costs and local production) distracting and detracting from superior longer-term impact (thus undermining innovation that is tackling more important and longer-term challenges). In the rush to ramp up the development and production of clean energy technologies, many countries and stakeholders have turned to a misguided, short-term strategy of “green mercantilism,” whereby countries enact policies that give their firms an unfair advantage in order to boost exports and limit imports of clean energy technologies. It is represented by “beggar-thy-neighbor” policies, including lax intellectual property enforcement, forced technology transfer, export subsidies, discriminatory standards, barriers to imports, and preferential treatment of domestic firms by their parent governments. Many of these policies result in barriers to entry that reduce the role economies of scale can play in helping innovative firms recover their up-front R&D investment costs by having access to large global markets. In terms of technology transfer, green mercantilist countries require foreign firms seeking access to their market to relocate R&D facilities or explicitly transfer their technologies to domestic firms so domestic firms can more quickly gain technology-specific knowledge. For instance, in accordance with its “New Energy Vehicles” plan, China requires foreign electric vehicle makers to transfer IP to a Chinese automaker as a requirement of being granted access to China’s marketplace. These policies harm other nations but often benefit the country that practices them, especially in the short run and for the nation’s producers (as opposed to its consumers and taxpayers). But if the goal is to create ever-better clean energy, continual dependence on subsidies, especially of a mercantilist variety, is not the way. Driving innovation is. While green mercantilist practices may boost short-term deployment, such practices reduce the incentives and ability of firms to invest in fundamentally better clean energy technologies. As a result, a global clean energy industry propped up by green mercantilist policies may not only produce near-term growth in lower-quality, higher-cost technologies that cannot compete with fossil fuels without sustained government subsidies, it also makes it much more difficult to develop more advanced and competitive alternatives. Looking ahead, innovation mercantilism and its policy components may become a more prevalent strategy unless countries are able to develop a new international framework that protects IP and increases the costs when countries field mercantilist practices. Otherwise, the vacuum created by the current framework—in terms of increasingly outdated and ineffective IP norms, rules, enforcement, and institutions—will undermine the level of innovation being produced in the global economy. THE OPPONENTS OF ROBUST INTELLECTUAL PROPERTY RIGHTS AND PROTECTIONS While it should be clear that intellectual property protection is key to national and global innovation, a diverse collection of organizations and individuals opposed to robust and modern intellectual property rights and protections is actively pushing their views across a broad range of forums and organizations. This has contributed to a complicated, confrontational, and inconsistent norm-setting and rule-making process around intellectual property globally. A fundamental fault line in the debate over intellectual property pertains to the need to achieve a reasoned balance between access and exclusive rights. Intellectual property allows rightsholders to prevent others from using their intellectual property without permission (for a limited period of time after that intellectual property’s creation), meaning it involves a fundamental trade-off between short-term static efficiency (providing immediate, wide-ranging access to the IP for social and other purposes) and long-term dynamic efficiency (incentives to invest in new innovations). This fundamental trade-off is inescapable. Both involve legitimate public policy goals, but there is a clear conflict between them.88 A fundamental fault line in the debate over intellectual property pertains to the need to achieve a reasoned balance between access and exclusive rights. Scholars and advocates who support intellectual property engage in vigorous and reasoned debates about how to balance rights, exceptions, and limitations in both domestic law and trade agreements—albeit based around a shared understanding that intellectual property and its protection are critical. Their debate is essentially over where to draw certain lines, such as whether patents should be subject to a second review. However, the debate that prevails in many international forums and organizations is not focused on this nuanced balancing; rather, it is focused on advancing a wholesale diminution of intellectual property broadly, including with regard to both its role in supporting innovation and its connection to trade. Ideological opponents who reject intellectual property rights make a number of specious arguments about how IP is a tool to limit growth in developing nations and how nations’ IP provisions should be viewed as a totally sovereign, “behind the border” issue. Coupled with the fact that many developing nations provide a welcome audience for such views, the IP opponents have been effective enough that a key framework condition for global innovation is now threatened. As such, any effort to establish new rules and norms around IP protection requires an analysis of their anti-IP ideology. Ideological opponents who reject intellectual property rights make a number of specious arguments about how IP is a tool to limit growth in developing nations and how nations’ IP provisions should be viewed as a totally sovereign, “behind the border” issue. They thus try to paint IP as irrelevant to trade and an infringement on a state’s right to use intellectual property however it wishes (mainly to pursue industrial policy and avoid foreign licensing fees). The following section characterizes opponents’ ideological opposition to reasonable IP rights and then catalogues the different types of organizations and entities opposed to intellectual property. It then uses the debate over IP in negotiations toward the Trans-Pacific Partnership agreement as a recent case study in how opponents seek to undermine efforts to improve IP rules internationally. In particular, the TPP debate was indicative of how opposition to intellectual property is often aligned with broader opposition to related issues, especially the role of trade agreements in enabling closer economic integration and the role played by large companies in the global economy. Ideological Underpinnings of the Anti-IPR Coalition Much of the debate over IP stems from different conceptions of economic theory and the processes of economic growth. These differing conceptions can be referred to as economic doctrines or ideologies.89 As noted innovation economist Joseph Schumpeter once stated regarding ideology, “The majority of economists … are ready enough to admit its presence, but like Marx, they find it only in others and never in themselves.”90 In considering the way ahead for IP globally, it is therefore important to understand the ideology that shapes how proponents view the economy, what they consider important, and most importantly, what they believe to be correct versus misguided public policy, especially as it relates to providing access to innovations. The following section examines some of the central ideological and policy positions asserted by IPR opponents. Claim: Intellectual property should be opposed due to its close connections to free trade, global economic integration, and large companies. Many opponents of robust IP protection share two major characteristics: a distrust of big business and a skepticism for private markets. At the heart of this opposition lies the belief that intellectual property is a tool for “big business,” which most IP skeptics inherently oppose. At the same time, by arguing that robust IPRs only benefit big corporations, they assert their views as being the ones that best support average citizens and the broader public interest. This is evident in their rhetorical attacks on “Big Pharma,” “Hollywood,” and multinational corporations generally, with their related advocacy for much greater regulation (or even breakup) of these businesses, which accompanies their discussions around IP, trade, and economic policy. The views of individuals such as Joseph Stiglitz, Dean Baker, and Arjun Jayadev are indicative. As the trio argued in a Project Syndicate article, “The IP standards advanced countries favor typically are designed not to maximize innovation and scientific progress, but to maximize the profits of big pharmaceutical companies and others able to sway trade negotiations.”91 As the United States Trade Representative’s Office participated in TPP negotiations in 2015, Stiglitz penned an op-ed in The New York Times alleging that ongoing negotiations toward the agreement were being influenced by a broad conspiracy designed to create higher drug prices, orchestrated by Big Pharma.92 Stiglitz continued, arguing, “Trade agreements are negotiated by the office of the United States Trade Representative, supposedly on behalf of the American people. Historically, though, the trade representative’s office has aligned itself with corporate interests.”93 A letter advanced by Public Citizen to countries’ trade ministers on the sidelines of the 1999 WTO protests in Seattle captured this sentiment in its statement, “The WTO is dominated by a few powerful governments acting on behalf of their corporate elites.”94 In the title of his October 2018 paper published by the Center for Economic and Policy Research, Dean Baker asked, “Is Intellectual Property the Root of All Evil?”95 A hint at his answer: maybe not of all evil in the world, but certainly most of it. The fact that many of these same commentators, academics, and NGOs also support the greater use of competition and antitrust policies to target large firms is a natural extension of this animus toward big business. But to portray intellectual property provisions in trade agreements as the tool of large corporations is, first of all, an ad hominem attack and therefore irrelevant. It also reflects how critics do not want to acknowledge the broader role IP plays in terms of employment and economic growth. For if they did, it would be much harder for them to prevail in the court of public opinion. Not only do IP opponents argue incorrectly that the lion’s share of benefits from IP go to corporate profits and not broader, societally enhancing innovation, they also disingenuously associate intellectual property only with certain industries and firms, such as large film studios or life-sciences firms, even though intellectual property is essential throughout an economy—to firms both large and small, traditional and high-tech, and goods and services-based alike.96 Indeed, intellectual property empowers firms of all sizes.97 Yet it is not just that the skeptics’ dislike big business, their opposition to IP rules in the TPP (as a proxy for trade agreements generally) represent a convergence of three forces: their opposition to IP, their opposition to free trade and globalization generally, and their opposition to large firms (see Figure 1). IP skeptics believe there is no overlap between company interests and worker interests. It is as if none of the revenues from the creation, delivery, and marketing of content—whether it be for a movie, a video game, or an album—go to the tens of thousands of artists, technicians, and others directly or indirectly involved in their creation. In this way, it exposes the fact that opponents ignore the broader role intellectual property plays beyond the end products people commonly associate with IP: that peoples’ jobs rely on the innovation and creativity embedded in innovative products and services. From a cross-sectional perspective, such ideological opposition is related to a form of “progressive localism,” which is rooted in an economic doctrine that desires an economy predominately composed of small firms (ideally worker- or state-owned), supported by big government, and protected from global competition. This localism favors national firms over transnational firms and local firms over national firms as a matter of principle. IPR opponents also argue that there is no overlap between a company’s ability to innovate and consumer interests. Yet consumers have an interest not only in low prices (which in theory they could get if all IPRs were abolished) but in the production of intellectual property, creating the next great movie, the next hit song, the next breakthrough drug, etc. For instance, Frank Lichtenberg found in his 2014 report, “Pharmaceutical Innovation and Longevity Growth in 30 Developing and High-Income Countries, 2000–2009,” that pharmaceutical innovation accounted for 73 percent of the 2000–2009 increase in life expectancy at birth across 30 countries (1.27 years of the 1.73-year increase).98 In the case of Colombia, a decade of pharmaceutical innovation reduced the number of years of potential life lost before age 70 from natural causes in 2013 by 142,318 years. Similarly, new drugs launched in Colombia from 2006 to 2012 reduced the number of medical procedures in 2015 by 13.9 percent.99 In other words, innovative drugs can significantly improve quality of life and reduce health care system costs for nations. In short, by arguing that IPRs only benefit businesses—and principally only big businesses—anti-IPR advocates seek to be on the side of the angels. That is why they fight so hard to advance a narrative that creativity, content creation, and innovation are not dependent on IPR. For them, consumers and workers can have it all: weak IP rights and more and better intellectual property (and thus innovation) production. If only that were true. Figure 1: The Concentric Circles of Opposition to Strong IP Provisions in Trade Agreements Claim: Intellectual property undermines human rights, in part by limiting “human freedom,” especially online. Many NGOs and their advocates oppose intellectual property, as they consider it an attack on human rights, especially free speech and individuals’ rights to participate in science and culture. There is an obvious need to ensure intellectual property laws balance protection, enforcement, and access, and consider different economic and societal interests, yet the debate involving IP and human rights is often far removed from nuance and careful analysis; and is usually based on inflamed passion and misinformation. This line of criticism of IP has gotten louder and more intense over the last decade in part due to the rise of “tech populism,” which as ITIF argued in its report, “How Tech Populism Is Undermining Innovation,” draws its strength from individuals’ fears, misunderstandings, or distrust, appealing to the prejudices of crowds and relying on demagoguery, distortion, and groupthink.100 While there are many strands to this broad opposition, two notable flashpoints emerge: enforcing copyright online, and intellectual property and the international human rights debate. The Internet is certainly one of the most important platforms for free speech and expression. Yet, indicative of the ideological divide, many proponents of weak or nonexistent intellectual property believe all information (copyright-protected or not) should be free, and governments should not only turn a blind eye to digital piracy, but also actively tie the hands of companies that seek to limit digital piracy.101 In addition to this, many opponents equate the unfettered dissemination of copyrighted-protected material (i.e., piracy) as free speech and expression. For example, in a response to the efforts by content firms to fight back against theft of their intellectual property, Christopher Mims, in an article for MIT Technology Review titled “Hollywood Hates Your Freedom,” wrote, “Hollywood clings to an antediluvian notion of how media should be created and distributed,” as if he knows best and has the right to determine their business models.102 In this vein, tech populists support weakening copyright protections because tech populists focus almost exclusively on how they personally benefit from weaker laws (more free content), ignoring the damage to content production from copyright infringement. A related line of criticism is that intellectual property protections are an attack on free speech. These advocates see many IP provisions as a constraint on the U.S. approach to “fair use” (how exemptions and limitations to copyright are allowed for such uses as commentary, criticism, parody, news reporting, research, and scholarship).103 Rather than seek to find an appropriate balance between IPR rights and free speech, which the United States has largely sought, IP opponents seek wholesale diminution of IP protections. This is despite the fact that the United States and many other countries use the same core criteria in international treaty law—the Berne Convention’s “three-step test”—to design their own approach to such exemptions and limitations, whether under a fair use, fair dealing, or a related approach.104 Within international forums, many advocates view intellectual property and human rights as two regimes that are fundamentally in conflict.105 This is an especially popular view in the United Nations (UN) human rights system.106 UN Human Rights Council special rapporteurs frequently criticize intellectual property protection and enforcement measures due to their perceived impact on freedom of expression, food, and health, and the very broad criteria of the right to enjoy the benefits of scientific progress and their applications.107 This view of intellectual property is largely based on a static and short-term view of innovation and technology: If an invention with wide societal value exists, there is a human rights imperative to make this invention widely available at little to no cost. Yet this view ignores the long-term ramifications such a policy would have on future generations of invention. Debates around human rights are often based on a very clear delineation of positive and negative duties of states, using a rhetoric of absolutes and unconditional entitlement. This entrenches the skeptics in absolute opposition, rather than permitting a recognition that intellectual property is a valid feature of the international system and that there exist mechanisms to balance outcomes that support their interests. This human rights-based opposition to IP rights, often in concert with economic concerns, is most clearly apparent in international debates around the interrelated issues of trade, development, technology transfer, and access to medicines (as elaborated on subsequently). Some IP skeptics (such as the Electronic Frontier Foundation and some at the Cato Institute) also argue that intellectual property protection and enforcement impugns upon personal freedom.108 “What right do others have to tell me I cannot copy a piece of music or a blueprint of a product?” Such proponents focus on maximizing self-interest and personal freedom, not the broader public interest—which is something they deny exists. Their view is that powerful interests, especially big business and big government, will prevent socially useful rules from being established. As noted, they distrust the private sector, but go a step further because they also distrust the public sector because they believe government is ineffectual and overbearing. Moreover, such libertarians often erroneously reject IP rights as simply being government-granted monopolies. As a result, they decry even the most pragmatic of IP solutions. Represented here are the “Internet exceptionalists” who do not want common-sense rules that apply offline to apply online, and who ultimately believe (or hope) the Internet heralds the end of IP rights.109 Claim: Intellectual property harms innovation by limiting the diffusion of ideas and technologies. Given the central role technology and innovation play, intellectual property represents a central point of contention in the debate about the best way to support economic development, especially in emerging economies. Proponents of weak intellectual property protection and enforcement view the twain as an essential part of a broader economic framework that sees imitation and the theft of intellectual property as a shortcut to technological upgrading and economic restructuring (typically from agriculture to export-focused manufacturing activities). In their ideal framework, the state uses weak intellectual property in an effort to improve the productivity of firms in specific sectors (typically export-focused, low-value manufacturing) as part of protectionist-minded industrial development strategies. In line with this, IPR opponents tend to make three main points: developed countries (“the North”) purposely wield IP as a political and economic tool, in such a way as to prevent others (“the South”) from using it; this power dynamic is central to the lack of development and innovation in developing countries; and as developing countries have less money, developed countries should hand over their IP and technology for cheap or free. IPR opponents blame developed countries (especially the United States), as they view these countries as using IP as a form of “economic imperialism.” This is a mainstay position for opponents who remain entrenched in the traditional “North vs. South” view of international relations, economics, and political policy. This view is well articulated by Argentinean law and economics scholar (and head of the prominent anti-IP NGO, the South Centre) Carlos Correa, who contends, “The monopoly rights granted by intellectual property rights [are] regarded as an instrument to avoid further catching-up based on imitative paths of industrialization; that is, as a tool to freeze the comparative advantages that had so far ensured U.S. technology supremacy.”110 Unfortunately, this view permeates the positions of many developing-country representatives to organizations such as the World Intellectual Property Office, WTO, and of course, UNCTAD. As this report outlines, this view of IP provides a misguided approach to economic development that diverts attention and resources from domestic policies that could actually support the development, deployment, adoption, and absorption of new technologies by emerging economies. IPR opponents paint developing countries as the victim when they argue that developed countries should hand over IP, as they contend the state (i.e., the broader public) in developing countries should have the freedom to exploit or undermine intellectual property, especially if it is to address key societal issues. It (again) shows how IPR opponents pursue a state-directed model of development, often involving protectionism, import-substitution, and other traditional industrial development strategies. Also, by focusing on the supposed political power and role of developed-country governments, it reveals a central point that goes to the core of ideological opposition to intellectual property: a recognition (and disdain) for the fact that firms (not governments) hold the private rights to the intellectual property embedded in most technology. Such IP is held by private-sector enterprises and driven by market forces, rather than the state or local community. In their eyes, intellectual property represents a static cost to be minimized or avoided. Reveals a central point that goes to the core of ideological opposition to intellectual property: a recognition (and disdain) for the fact that firms (not governments) hold the private rights to the intellectual property embedded in most technology. In summary, this North-South power dynamic and negative-sum view of intellectual property leads many opponents to frame and view the debate through the singular (distorted) lens of the distribution of technology and its forced redistribution by the state. Organizational Groupings While the dynamics and specifics of ideological debates around various facets of intellectual property may differ, opponents of IP can generally be categorized into five major groups: academia, nongovernmental organizations, international organizations, national governments, and individual officials within governments. The following section cannot list every opponent of IP, but showcases examples from some of the most strident opponents of IP in these organizations. Academia A large and active group of academics in both developed and developing nations working on intellectual property issues see IP as something to be weakened, removed, and generally opposed, often due to cross-sectoral concerns over development and access to medicine, human rights (especially freedom of expression online), and the digital economy (especially copyright online). In Canada, these include academics such as Jeremy de Beer, Carys Craig, Michael Geist, Richard Gold, David Lametti, and Ariel Katz. In the United States, Jagdish Bhagwati, James Boyle, Rebecca Eisenberg, Wendy Gordon, Michael Heller, Larry Lessig, David Kaye, Paul Krugman, Eben Moglen, Ruth Okediji, Pamela Samuelson, Tim Wu, and Jonathan Zittrain are emblematic of this group.111 Duke University’s James Boyle argues for a traditional and stagnant view of IP that ignores piracy being a prominent feature (as it has become easier and more common) and that therefore national and international laws need to catch up and improve in order to address modern technology and business practices. Boyle views IP as a North-South dynamic, and essentially contends that IP is not positive for the interest of developing countries.112 Ruth Okediji, a professor of Law at the University of Minnesota Law School, thinks international IP rules stifle economic development (preferring “policy space” for state-directed industrial development strategies) in a traditional North-South paradigm, recommending that developing countries resist engaging in trade agreements with IP provisions, as she sees them as “a global agenda to gain complete control of how public knowledge goods are created, disseminated and used.”113 Larry Lessig, professor of Law and Leadership at Harvard Law School, called on WIPO to overhaul the copyright system, which he says does not and never will make sense in the digital environment, asserting that “information should be free” and “reading, lending, or reselling a book is not ‘fair use’—it is free use. They are unregulated acts.”114 Nongovernment Organizations There exists a broad and diverse range of advocacy organizations that actively support the removal or weakening of intellectual property protections. Many NGOs, such as the Center for International Governance Innovation, the Electronic Frontier Foundation (EFF), the Free Software Foundation, Knowledge Ecology International, Medicins Sans Frontieres, the Open Media Organization, Public Knowledge, and the South Centre, among others, were founded, in part, to oppose the role intellectual property plays in extending private rights over what they classify as public goods.115 Much of what drives these organizations is a short-term view that policy should make IP free or deeply discounted, in part, to ensure the “fairer” distribution of goods and services, while failing to acknowledge the longer-term and broader implications such an approach would have on innovation. Some NGOs are issue specific (such as opposing copyright online, pharmaceutical patents, or tech transfers to developing countries), while others are cross-sectional in their opposition to broader contexts IP may be just one aspect of (such as trade agreements). Many anti-IP NGOs focus on development issues, seeing development as a largely redistributionist issue: if the “North” gains, the “South” loses and because the South is lagging, the goal of global policy should be to redistribute resources, including IP resources from the North to the South. These organizations are especially active at WIPO and WTO, and in United Nations agency discussions, sometimes, as in the case of the South Centre, working as advisors to developing countries that oppose intellectual property at these agencies. The Geneva Declaration on the Future of WIPO (which arose from a workshop of like-minded NGOs and academics that met in Geneva in 2004 to discuss a development agenda for WIPO) summarizes the broad set of negatives and ills these NGOs associate with (and blame on) IP. The Declaration took an alarmist approach, stating that “humanity faces a global crisis in the governance of knowledge, technology and culture,” and that this crisis manifests itself in a number of key ways, including, “without access to essential medicines, millions suffer and die; morally repugnant inequality of access to education, knowledge and technology undermines development and social cohesion; anticompetitive practices in the knowledge economy impose enormous costs on consumers and retard innovation; concentrated ownership and control of knowledge, technology, biological resources and culture harm development, diversity and democratic institutions; [and] private interests misappropriate social and public goods, and lock up the public domain.”116 Many anti-IP NGOs focus on development issues, seeing development as a largely redistributionist issue: if the “North” gains, the “South” loses. Among this broad group of NGOs are the “anti-globalists,” who are most vocal in their opposition to the TPP (and who are active in opposing other trade agreements that contain IP) and most willing to engage in misleading negative messaging.117 This collection of voices, often under the banner of coalitions such as Expose the TPP, Stop the TPP, and Flush the TPP, fundamentally rejects a world in which multinational corporations are major producers and wherein global economies are tightly integrated.118 These coalitions include Public Citizen, the South Centre, EFF, and a diverse group of labor unions, environmentalists, and consumer, and human rights organizations.119 Anti-globalists oppose multinational companies, global supply chains, and global markets operating according to harmonized rules, and see the rise of a consumer-based global middle class as inherently suspect (i.e., as representative of the rise of a materialist and environmentally unsustainable society). For instance, EFF has railed against the TPP as a “secretive, multinational trade agreement that threatens to extend restrictive intellectual property laws.”120 Instead of viewing trade agreements (such as the TPP) as the product of long-ongoing efforts by a broad group of countries to implement rules, including regarding intellectual property, periodically updated to reflect a modern and broadly harmonized framework to support a more productive and innovative global economy, many of these groups spin these provisions as being a sinister plan to harm consumers and workers—a much easier sell than if they argued their case on the basis of their animus toward corporations and globalization. International Organizations Many parts of the UN system are strongly opposed to intellectual property. Such ideological opposition to IP at the UN is perhaps best demonstrated by UNCTAD. For example, UNCTAD’s “2014 Trade and Development Report” stunningly contended, “Strong IP protection may have little or no impact on innovation, while reducing the diffusion of foreign inputs and technologies and increasing their costs.”121 UNCTAD’s preferred approach to economic policy, including intellectual property, is indicative of many proponents of weak intellectual property in international organizations. These officials harken back to an earlier era that fundamentally distrusts companies (especially large and foreign ones) and market forces, and sees a central role for governments in guiding and managing large parts of an economy (i.e., central planning). Their preferred approach to economic policy uses protectionist measures to encourage import substitution, alongside state-directed infant-industry support programs, in order to foster export-led growth. In this economic model, developed countries hand over intellectual property and technology and act as markets for developing-country manufacturers. For these officials, IP rules (whether domestic or within trade agreements) represent a barrier to state-directed industrial policy that defines “policy space” as providing the ability to obtain the latest technology for free or below market cost in order to support local production.122 In this way, officials at UNCTAD advocate for a tried and failed set of economic and trade policies that ignore the success of today’s open, rules- and market-based trading system in reducing poverty and improving global living standards. Other examples of UN agencies opposing robust intellectual property rights (often in tandem with opposition to trade, the existence of large companies, and other positions shared by opponents of intellectual property) include: The United Nations Human Rights Council has written about a “right to health framework” that includes a reference to technology transfers, despite being outside its mandate.123 WIPO—the organization with this mandate to conduct IP-related work—has already reviewed the Post-2015 Development Agenda to identify which are most related to its work. For these, it will engage in relevant UN processes, in particular those of the Inter-agency and Expert Group on Sustainable Development Goals Indicators (IAEG-SDG) and the Technology Facilitation Mechanism. A 2016 United Nations Development Programme (UNDP) report called for reforming global institutions and trade and investment rules. In particular, it called for the reform of intellectual property so that it can create “space” for industrial policy. Indicative of the view that technology should be provided for free, the report explicitly identifies payments for IP royalties and licenses as a sign the system is not working. Lamentably, UNDP has taken this position instead of recognizing IP licenses as a means to facilitate technology transfer for environmental or other goals, and without considering the consequences for what its position would mean for trade, investment, and future generations of innovation.124 In other words, the North should subsidize the South by giving valuable intellectual property away for free. In 2015, the United Nations Special Rapporteur in the field of cultural rights issued a report holding that the exclusivity and commercial nature of many products and services that are based on intellectual property should be disregarded if they deprive people from access to science and culture, stating that “unreasonably strong patent protection may constitute a violation of human rights.”125 In 2014, the United Nations Human Rights Council established an open-ended intergovernmental working group on transnational corporations, with a mandate to develop an legally binding (internationally) instrument to regulate these businesses according to human rights law. IP opposition can also involve these organizations actively advising governments of their preferred interpretation, even when it relates to an agreement an agency is not mandated to interpret, enact, and enforce. For example, WHO officials have advised the Colombian government on how to interpret TRIPS provisions on compulsory licenses.126 In April 2017, UNCTAD, UNDP, and the Joint United Nations Programme on HIV/AIDS organized a joint workshop on tech transfer and public health to essentially advise a range of African countries on how to interpret TRIPS and use provisions such as those for compulsory licensing. It explicitly refers to the flawed United Nations High Level Panel (UNHLP) on Access to Medicines recommendations as the way forward.127 Weakened IP as part of technology transfer arrangements was discussed as a way to implement the SDGs at the UN Oceans Conference.128 UNITAID (an International Drug Purchase Facility established as an innovative funding mechanism to accelerate access to high-quality drugs and diagnostics for HIV/AIDS, malaria, and tuberculosis in countries with a high burden of those diseases) has used the UNHLP report as cover to further push ahead with work to advise countries on how to use compulsory licensing and other TRIPS flexibilities, as it views TRIPS as a barrier to access to medicines.129 Mr. Celso Amorim, chair of UNITAID, was also an author of the UNHLP report on access to medicines. Of course, it is not just United Nations agencies that look askance at IP. A 2002 World Bank report asserted that a fully implemented TRIPS Agreement would transfer more than $20 billion of “rents” from developing countries “to major technology-creating countries—particularly the United States, Germany, and France—in the form of pharmaceutical patents, computer chip designs, and other intellectual property.”130 But this confuses rents (e.g., such as having to pay to access a resource that does not own it) with legitimate income from productive activity that generates genuine value for developing nations, as noted previously with the example of how biopharmaceutical innovation has contributed to a significant improvement in health outcomes in Colombia.131 National Governments The split between developed and developing nations represents the traditional divide in the international debate around intellectual property, with many of the latter generally opposing new and stronger intellectual property protections and enforcement. Within international institutions, developing countries often form ad hoc, issue-specific groups as well as institutionalized formal groups (such as the Group of 77) to advocate for their positions on intellectual property. Yet between developing nations, there are important differences in how countries engage in intellectual property and pursue it in a domestic context. Many developing countries, such as Brazil, India, and South Africa, consistently engage in debate grounded in an ideologically hostile view of IP. Indian representatives have argued before the TRIPS Council that “WTO members should actually be prohibited from implementing more extensive protections than what’s required in TRIPS, if such additional protection would contravene the Agreement,” in other words arguing that TRIPS actually sets maximum ceilings in IP protections to which countries should be obliged. In 2018, South Africa’s ruling African National Congress resolved to adopt expropriation policies (including for intellectual property) without compensation. A 2018 draft of a revised South African IP policy weakened IPRs by making it more difficult to register patents and easier to break patents, and limiting remedies available to patent holders. The proposals also included amending patentability criteria to promote “genuine” innovation and issuing “workable” compulsory licenses for others’ IP via a nonjudicial review mechanism.132 Other countries, such as China, are less ideologically committed to the debate, although they use the language of the developing nations to oppose IP. Rather, the main intent for countries such as China is actively stealing foreign intellectual property and exploiting the current framework of rules to discriminate against foreign companies as part of a concerted strategy of innovation mercantilism.133 Many developing countries, such as Brazil, India, and South Africa, consistently engage in debate grounded in an ideologically hostile view of IP. Individual Government Officials or Departments Even when a country’s government broadly and publicly supports robust intellectual property rights and enforcement, internal opposition and divergent opinions within national governments may work to undermine this position. Individuals or groups of officials inside government agencies (whether from developed or developing countries) often oppose a country’s formal position in supporting stronger and better intellectual property. For some, particularly those involved in development and diplomacy, weak IP is seen as a bargaining chip that can be “traded” to developing nations to either help them develop or as a trade for concessions on other issues (such as increased agricultural market access). These officials can directly or indirectly influence the outcomes they personally prefer during internal government discussions or as part of their own engagement in domestic and international meetings and events. For instance, Australia’s Productivity Commission (a quasi-independent advisory body) advocates for the removal of IP from Australia’s trade agreements, viewing it in a purely “balance-of-trade” perspective (i.e., Australia imports more IP than it exports, therefore IP-intensive imports should be reduced, in part by limiting IP provisions in the trade agreements Australia signs) and sees intellectual property protection as harming developing countries.134 Likewise, even though the U.S. State Department as an institution has largely supported strong IP rights, some individuals in the department have argued for weak IP provisions along the lines that weak IP provisions would help the developing nations they are tasked with helping. How IP Opponents Work to Gain Advantage International intellectual property policymaking has grown more complex since the TRIPS agreement, in part due to the growing diversity of actors and forums engaging in intellectual property. The range of forums debating intellectual property has expanded horizontally across multilateral institutions and forums, and vertically down to regional, national, and subnational levels. Countries that support robust intellectual property rules have used vertical forum shifting in pursuing regional and bilateral trade agreements to account for stasis at WTO and WIPO, and built on work to animate existing rules by focusing on implementation and enforcement capacities (whether bilaterally though IP offices or aid agencies or through WIPO’s technical assistance program).135 Meanwhile, IP-skeptical NGOs, academics, advocacy groups, and their developing-country partners who favor weak or nonexistent intellectual property have pursued horizontal forum shifting by pushing their views on intellectual property across a broad cross-section of international organizations and forums that have not traditionally dealt with the issue. For these groups, legally binding text might not be the objective, but rather the reinterpretation of existing laws and the creation of new, nonbinding declarations, guidelines, recommendations, and other forms of soft law.136 They do this in part because they want to work outside traditional organizations that focus on intellectual property—such as WIPO and WTO—which they do not view as sympathetic to their positions or to organizations whose mandates are more closely aligned with their political, social, and economic objectives. This complicated, clashing, and inconsistent norm-setting and rule-making processes has contributed to the stasis in international IP rule making since TRIPS. What this crowded policymaking environment does is offer alternative venues—each with its own institutional features, subject matter competencies, and decision-making procedures—within which IP opponents can experiment to find a way to pursue their objectives and thereby further their efforts to undermine intellectual property.137 This complicated, clashing, and inconsistent norm-setting and rule-making processes has contributed to the stasis in international IP rule making since TRIPS. HOW THE IDEOLOGICAL BATTLE AFFECTS INTELLECTUAL PROPERTY AND TRADE Intellectual property’s relationship with trade is a key front in the IP ideological battle. Proponents of weak or non-existent intellectual property rules attack the link between intellectual property and trade despite the fact that countries have tied the two together since the earliest commercial agreements, which required protection for foreigners’ property interests, including IP rights.138 More recently, the collapse of the proposed Anti-Counterfeiting Trade Agreement (ACTA) in 2012, the stalling of the Transatlantic Trade and Investment Partnership in 2016, and the United States’ withdrawal from the TTP trade agreement in 2017 emboldened IPR opponents. However, the central facts that led to these historical and modern agreements—that intellectual property rights are territorial in character and critical to trade—remain true today. This section analyzes this debate around IP and trade, and how the debate has played out in the context of the TPP. Proponents of weak or non-existent intellectual property rules attack the link between intellectual property and trade despite the fact that countries have tied the two together since the earliest commercial agreements, which required protection for foreigners’ property interests, including IP rights. Critics of IP constantly try to frame IP as being irrelevant (or even, a barrier) to trade. A major line of this criticism is based around a 20th-century view of trade as being based around traditional manufactured goods facing tariffs when crossing borders. The general public often views trade along these lines, for many reasons, one being that modern trade (increasingly in services and knowledge) is intangible (and thus much harder to think of in connection to foreign markets). Many critics combine this traditional view of trade with a belief that intellectual property lies “behind the border,” where nations supposedly should have unlimited rights to do whatever they want. While this criticism has become more prominent in recent trade debates, it has existed since the earliest days of WTO. For example, hundreds of NGOs signed a joint letter at WTO’s Third Ministerial Meeting in Seattle, in 1999, calling on members to remove TRIPS from WTO, contending, “There is no basis for inclusion of intellectual property claims in a trade agreement.”139 A more recent example of this view comes from liberal economist Paul Krugman, who speaks for many critics when he asserts that the TPP “is not a trade agreement. It’s about intellectual property and dispute settlement.”140 Joseph Stiglitz stated, “These [trade] agreements go well beyond trade, governing investment and intellectual property as well, imposing fundamental changes to countries’ legal, judicial, and regulatory frameworks…”141 Mixing a view of intellectual property (that it is a tax on developing countries on behalf of multinational corporations) and the traditional view of trade, economist Jagdish Bhagwati thinks that intellectual property rights should never have been included in the WTO agenda, claiming that, “Intellectual property protection is not a trade issue; and the WTO ought to be about lowering trade barriers and tackling market access problems that will often go beyond border measures to internal regulations: a thorny issue.”142 Such opponents of IP persevere in their ideological attacks against the IP-trade connection, despite the fact that they are based on the since-unrealized fear that addressing trade-related, behind-the-border issues at WTO and other trade agreements would inevitably open the door to lower environmental protections and labor standards, leading to a “race to the bottom.” Many of these critics believe it is fine for WTO, such as the General Agreement on Tariffs and Trade before it, to deal with traditional trade issues such as tariffs and market access (and actually some other behind-the-border issues related to investment or sanitary and phytosanitary measures), but just not to intellectual property. But the reality is that what goes on “behind-the-border”—including with regard to intellectual property—is central to shaping trade in the 21st century (as detailed in previous sections). The idea that reducing a tariff on a widget is a legitimate part of a trade agreement but that reducing the ability of a nation’s citizens to steal the goods and services of another nation’s citizens or enterprises—that is, ensuring robust intellectual property enforcement—is not legitimate, is simply illogical. In fact, weak or nonexistent intellectual property protections and enforcement can act as a non-tariff barrier and cause substantial distortions in international trade, especially in the global digital economy.143 That is why policy changes that remove impediments to the production or transfer of technological knowledge across borders should be viewed as analogous to countries’ reductions in tariffs that impede cross-border trade in goods.144 To be effective, modern trade requires robust IP protections, because without them, producers would be less able to sell their products and services across borders. If a nation promulgates a weak IP regime and turns a blind eye to rampant piracy, imports of IP-based goods and services paid for with an export of money would by definition decline. The idea that reducing a tariff on a widget is a legitimate part of a trade agreement but that reducing the ability of a nation’s citizens to steal the goods and services of another nation’s citizens or enterprises—that is, ensuring robust intellectual property enforcement—is not legitimate, is simply illogical. Moreover, the rise of digital trade makes embedding intellectual property regimes in trade agreements imperative, as technology makes the sale of digital goods and services to foreign markets so much easier and cheaper—even as it also makes intellectual property theft much easier—regardless of firm size. Strong intellectual property protection and enforcement is critical to digital trade, as the incidence and cost of piracy remains significant to creators, particularly as reproduction technologies have improved and become cost efficient, while at the same time creation costs for some forms of digital content have increased. The reality is that intellectual property rights are uniquely trade-related and that modern trade in goods and services increasingly depends on intellectual property. A Case Study: The Trans-Pacific Partnership Trade Agreement Analyzing the debate surrounding the TPP’s intellectual property chapter is useful, as it represents a broad and prolonged effort to by the United States and 11 other countries to update intellectual property rules to address modern trade issues. The TPP’s proposed IP rules largely reflect existing laws in the United States and other developed member countries, such as Australia, Canada, and Japan. Furthermore, those laws support the United States’ and others’ positions as among the world leaders in innovation, without undermining human rights and other public interests. Yet this has not prevented the TPP’s intellectual property chapter from being subjected to a range of hysterical and baseless claims. Opponents’ reactions to the TPP’s proposed IP provisions reveal how the opposition is often tied to a broader and deeper ideological backlash, not just against intellectual property, but also to globalization and large corporations. The reality is that intellectual property rights are uniquely trade-related and that modern trade in goods and services increasingly depends on intellectual property. The TPP addresses IP issues because that is where a great many barriers to trade exist. The base level of global IP protection, as reflected in TRIPS and many WIPO IP treaties, was established in the 1990s, when the Internet and e-commerce barely existed. This is the case regarding digital trade (which often involves IP), particularly given that the first e-commerce sale was 24 years ago, (when a broken laser printer sold on AuctionWeb, eBay’s predecessor, for $14.83); that stands in stark contrast to global business-to-consumer e-commerce sales reaching $1.92 trillion at year-end 2016. It is no surprise, therefore, that countries negotiating the TPP sought to include IP provisions that would protect the growing global trade in digital goods and services. What the debate around the TPP’s digital IP provisions reveals is that for many IP skeptics, the battle over intellectual property in trade agreements is simply an extension of their opposition to similar domestic laws in the United States and other developed countries. This is despite the fact that many of these laws have been in place for decades and reflect international norms. For many IP skeptics, their criticism of international intellectual property rules is not so much about calibrating the system and particular provisions as it is about their fundamental opposition to the role intellectual property plays in today’s economy. Again, the nature of this opposition is not in nuance, evidence, or pragmatism. Many of the opponents are absolutists; they do not see IP rules as being about finding balance between access and protection. For them, absolute access to all content, even if the user does not have a legal right to that content, is a central goal. Any law, regulation, or trade agreement that works to ensure people cannot steal content with impunity is a law, regulation, or trade agreement they will reflexively oppose. Following are three examples from the TPP IP debates related to technical protection measures (TPMs), copyright, and trade secrets. Technical Protection Measures TPMs are “digital locks” that protect access and copying controls for copyright-protected content and the devices and networks—such as Netflix, the Xbox, and Valve’s Steam—that use them. TPMs are not new; they build on provisions that are part of WIPO’s Internet Treaties.145 As WIPO outlined in its guide for the treaties, the application of TPMs is “a key condition for the protection, exercise, and enforcement of copyright in the digital networked environment.”146 While people use devices and networks that rely on TPMs on a daily basis, critics see nothing but doom. Canadian academic Michael Geist, a promoter of weak IP protection, has called provisions that prohibit TPM circumvention “unquestionably the biggest and most controversial digital copyright issues.”147 According to EFF, TPMs represent the “most threatening provisions” of the TPP’s IP chapter, and are one of the main reasons the organization opposes the TPP.148 EFF paints TPMs as a broad, sweeping evil that impede innovation, security, and basic user rights and expectations, while also claiming they fail to inhibit copyright infringement.149 Despite the fact that the TPP includes a framework for how countries should allow exceptions (i.e., for when people may circumvent TPMs for legitimate noncommercial purposes), critics choose to focus on cases at the margins—limited cases where there may have been some legitimate adverse impacts from TPMs inhibiting legitimate research and tinkering—while refusing to acknowledge that TPMs play an overwhelmingly positive role in spurring digital trade (as opposed to digital theft). Copyrights Public Knowledge and other anti-IP critics have claimed that the TPP’s copyright rules constitute an attack on free speech, as they do not include binding commitments to implement U.S. “fair-use” doctrine. Public Knowledge has claimed that the TPP’s approach to fair-use provisions—which address how exemptions and limitations to copyright are allowed for such uses as commentary, criticism, parody, news reporting, research, and scholarship—is the “epitome of such overbroad [copyright] protections, laying out restrictive provisions that weaken U.S. exceptions and limitations.”150 But such criticism is false. In reality, the TPP’s copyright provisions use the same core criteria to define fair use already employed around the world, as different legal systems and approaches mean there is no one-size-fits-all approach to defining fair use. In fact, that is why it is misguided to think that America’s fair-use doctrine, which is based in complex and ongoing judicial interpretations, can simply be exported. The TPP protects fair use with the same core criteria—known as the “three-step test”—that have been part of international law for decades, as embodied in the Berne Convention, TRIPS, and other WIPO treaties.151 Again, this highlights opponents’ broader opposition to the established role of IP. Trade Secrets Fight for the Future (FFTF) has argued, “This [the trade-secret provision] is clearly intended to stifle whistleblowers and journalism covering the documents they expose—it could criminalize, for example, The Guardian’s reporting on the documents they received from Edward Snowden.”152 EFF and FFTF wrote a joint letter that claimed, “[T]he TPP’s trade secrets provisions could make it a crime for people to reveal corporate wrongdoing ‘through a computer system.’” These claims—that TPP members want to use a trade agreement to target journalists and whistleblowers—are a good example of critics reading into the TPP what they want: namely, fear. It is worth noting that global news agencies have not joined this effort, as these claims ignore the robust laws in place in the United States and elsewhere that protect employees from potential repercussions from disclosing illegal activities a firm may try to portray as “trade secrets.” First, the definition of a trade secret has not suddenly expanded to include activity that is not already in international law—in fact, the TPP uses the definition of trade secrets in TRIPS as a minimum. Second, the text of the TPP shows negotiators were cognizant of exactly this type of criticism when they included a footnote to the title of the trade-secret provision that states the entire provision is “without prejudice to a Party’s measures protecting good faith lawful disclosures to provide evidence of a violation of that Party’s law.”153 Backing up this “good-faith” intention, the TPP’s transparency and anticorruption chapter includes provisions that state members shall adopt or maintain measures to protect whistleblowers.154 THE WAY AHEAD A policy framework that prioritizes global innovation will require the world’s leading innovative countries to recognize that there are major problems with the current stalemate and outdated approach to IP at the international level. First, by not advocating that countries should consider the global implications of their domestic innovation policies, too many countries have been allowed to enact mercantilist practices that detract from global innovation. Second, by not advocating for core principles and policies that support innovation at the global level, leading countries allow opponents of IP to undermine the increasingly outdated and ineffective rules undergirding IP at WIPO and WTO. Third, this complacency and policy stalemate has allowed IP skeptics to define and frame the debate—IP as a barrier to progress, short-term interests are paramount, IP is unfair—when in fact these arguments should be seen for what they are: anti-innovation, anti-growth, and anti-progress. A policy framework that prioritizes global innovation will require the world’s leading innovative countries to recognize that there are major problems with the current stalemate and outdated approach to IP at the international level. If the world is going to maximize its potential for global innovation, it will need leading countries to recognize that new energy, new tactics, and a new strategy are needed to encourage more nations to do more contributing and less detracting from global innovation.155 Moving forward will require several actions, including 1) a broader reframing of IP, trade, and innovation; 2) a coherent “all-points strategy” in which committed nations and their key innovation-supporting agencies and institutions actively advocate for IP and contest the activities of the IP skeptics on virtually every front; and 3) expanding “nonagreement” cooperation. These recommendations are in addition to the ongoing role trade agreements (whether bilateral or regional) can play in improving the international framework for intellectual property and innovation (given the likely lack of progress at WIPO and WTO). If anything, as this report outlines, the role of IP provisions in trade agreements only gets more important with the increasing knowledge-intensity of modern trade and economic activity and the need for greater levels of global innovation. Why a Targeted Approach to Supporting Global Innovation Is Needed The world’s leading innovation countries need a targeted, energized, and coordinated approach to support the broad goal of encouraging more countries to adopt policies that promote (and not detract from) global innovation. Ideally, new and changing global production and innovation networks would result in a commensurate debate at the multilateral level, such as at WIPO or WTO, over how to update current rules and institutional frameworks to support greater global trade and innovation. However, the ad hoc approach that largely defines some leading countries’ approach to innovation and IP at the international level has proven ineffective in driving such an agenda. These countries need to change their approach if they ever hope to change the debate and the policy outcomes. A targeted approach needs to reflect a level of pragmatism and flexibility for countries that want to implement higher-standard IP policies that support modern trade and innovation. While a new multilateral agreement on intellectual property or institutions (or a reformed WTO) offers the broadest potential benefits, it is subject to reality: The many factors outlined above, and those that have shaped intellectual property (and to some extent, trade policy more broadly) at the multilateral level since TRIPS, remain locked in place and are unlikely to change anytime soon. Not that they cannot be helpful in some areas and in the broader debate, but WTO and WIPO are unlikely to play a lead role in debating, negotiating, and enforcing new rules. This inevitably means the focus for those countries wanting to make progress on intellectual property, trade, and innovation needs to look toward bilateral or more narrow multilateral agreements and levels of cooperation between leading countries and their IP agencies and those wanting to enact domestic policies which contribute more powerfully to global innovation. Reframing the Debate Around IP, Innovation, and Trade The world’s leading innovation countries need to actively and consistently engage in the global debate surrounding IP and innovation, and provide resources to back up that commitment. As noted, innovation does not fall like “manna from heaven.” Rather, innovation is a product of intentional human action, complex national innovation systems, and strategies that seek to coordinate a range of disparate policies that impact the capacity and ability of both private and public actors to effectively innovate. Reframing the intellectual property debate back toward a focus on innovation (and content production) would require some significant shifts in international policymaking, including changes to how countries typically approach innovation, trade, and economic policy; removing the notion of developing-country “victimhood,” as alleged by IP skeptics, and instead make the case for how skeptics’ preferred approach actually undermines global innovation and human welfare; and how the traditional “North vs. South” dichotomy used by opponents of IP is wrong and distracts from how all countries can contribute to global innovation. The starting point for maximizing global knowledge production and innovation is countries doing the right thing at home in terms of implementing the right policies in ways that maximize their innovation capacity, but without distorting global trade. Countries, regions, and cities around the world are increasingly focusing on what they can do to improve their ability to support innovation, while benchmarking their performance against global competitors on various innovation indices, as they consider reforms that would improve their ranking and overall performance.156 How countries individually and collectively determine policies that relate to innovation will determine how they contribute to or detract from global innovation, and what this implies in terms of progress toward developing solutions to global challenges.157 With innovation truly the most important “good” for the future of the global economy and society, policymakers cannot take it for granted. From this, policymakers need to elevate innovation policy on the global stage to a similar level as trade when it comes to debates about how to optimize global economic growth and welfare. Most policymakers, economists, and pundits are well versed in the mantra that free trade boosts global economic welfare. But that same intellectual consensus does not exist when it comes to supporting innovation policies, such as robust intellectual property protections, that are key to maximizing global innovation. And while an increasing number of policymakers realize that innovation is central to economic growth and improved standards of living, many have not connected domestic and global approaches in the same way other policies are assessed from a trade perspective (i.e., as either protectionist or open to trade). This focus on the components that support innovation, especially intellectual property, would be a new lens through which to advance international economic and trade policy. Policymakers need to elevate innovation policy on the global stage to a similar level as trade when it comes to debates about how to optimize global economic growth and welfare. The United States and likeminded nations also need to clearly, consistently, and strongly push to reframe the debate around IP back toward a considered and holistic analysis of the international issues wherein intellectual property is a priority agenda item, whether this is in nations’ framing of their economic and trade policies or in the context of issue-specific debates, such as around technology transfer and access to medicines. In some areas, the United States and likeminded countries have shown this to be possible—as with the UN High-Level Panel on Access to Medicines. In other areas, such as with regard to improving intellectual property protection and enforcement in the digital economy, leadership has been wanting. Ultimately, the reactive, defensive, and ad hoc nature of the United States’ and likeminded countries’ current approach is failing to make progress on the broader narrative toward (weaker) intellectual property rights. This essentially cedes the debate to the many vocal and active proponents of weaker intellectual property, and the institutions in which this view has taken hold, allowing them to continue advocating their positions as being in the public interest. Part of this revised engagement should involve IP-oriented nations pushing back on framing by IP opponents that strong IP benefits only large corporations and rich nations, and instead call them out on how their preferred approach harming knowledge production and innovation around the globe. Opponents tend to focus on disparities between developed and developing countries in the development and deployment of technology (arguing the disparity is fundamentally unfair) and assert that governments should be able to forcibly intervene to undermine intellectual property in order to “correct” this.158 IP skeptics’ misguided position is appealing in its simplicity, as it is able to disregard the complexity of the respective issues being debated, and is often effective because it portrays them as being on the “side of the angels.” Such IP opponents need to be confronted with the reality that their positions are anti-innovation, and if widely implemented would lead to a worse, not better, situation for most of the world’s residents. The United States and likeminded countries should develop a tailored strategy to identify stakeholders to engage as part of the effort to reframe the debate around IP, trade, and innovation, as the target audience in each country is not clearly bifurcated, both within and between developed and developing countries. Many policymakers, especially those in developing countries, need to move toward an economic framework that focuses and elevates innovation policy and discards the traditional framing of intellectual property as a bargaining chip that countries should hold onto for trade negotiations with developed countries. This traditional (zero-sum) framing of intellectual property misses the point that IP is one part of a broader policy framework that is needed (along with institutional capacity, education, infrastructure, etc.) to support innovation and productivity growth. In fact, countries should make improving their intellectual property rules, enforcement, and administration separate from trade agreements part of their own economic policy reforms, simply because doing so would help their own economy and so should be part of countries’. The target audiences for renewed engagement on an updated framing of intellectual property, trade, and innovation are many and varied—representing in many ways a mirror image of the typology of groups that oppose stronger IP outlined earlier. The United States and likeminded countries should develop a tailored strategy to identify stakeholders to engage as part of the effort to reframe the debate around IP, trade, and innovation, as the target audience in each country is not clearly bifurcated, both within and between developed and developing countries. Even within developing countries that have traditionally pushed for weak or no intellectual property protections, such as China, India, and South Africa, there are stakeholders—individual policymakers, academics, government agencies, trade associations, and research institutions—that recognize both the need to focus on innovation and that IP plays a key supporting role. For example, there can exist government agencies in developing countries that recognize that IP is a critical enabler of innovation, despite the country’s formal antagonistic position toward IP in international debates, such as between ministries of science and technology on one side and ministries of industry or health on the other. There can also be cleavages between the positions held by a country’s representatives at WTO, WIPO, and UNCTAD and officials from the respective agencies that actually work on economic policy, science and technology, and intellectual property back in the country’s capital. Supporters of a robust IP system need to work to strengthen these voices. It is not about North vs. South anymore, it is about whether one lives in a country where policymakers understand that robust intellectual property rights are beneficial for innovation and economic growth, or not. In line with reframing the debate, the strategy for engagement should not be defined by a country’s level of development, but rather on the positions held by its policymakers. The central message of this reframing should be that it is not about North vs. South anymore, it is about whether one lives in a country where policymakers understand that robust intellectual property rights are beneficial for innovation and economic growth, or not. It is also just as critical to focus on the broader policy framework around IP. Intellectual property does not operate in a vacuum. A patent by itself is not useful. It is the policy framework that allows countries to maximize the benefits of intellectual property (which is why focusing on capacity building is a key recommendation). A key target for revised and renewed engagement should be the development banks, UN agencies, and international conferences that deal with technology transfer issues and tend to frame IP as a distributional transaction, while disregarding the economic research that shows IP facilitates technology transfer and foreign technology is a key source of productivity gains for developing countries. Developing an “All Points” Strategy for Intellectual Property Reframing the debate over intellectual property will only work if the United States, the European Union, Japan, and other likeminded countries that recognize and value the role of IP are proactive, consistent, and persistent in doing so at each and every forum and agency wherein the issue is on the agenda. Such an “all points” strategy would reflect the fact that proponents of weak intellectual property are pursuing a similar strategy. However, IP opponents have been far more prominent, energized, and active in advocating for their preferred policies. Unfortunately, over time, this has negatively influenced the narrative around intellectual property and how it should be dealt with in international forums. To be truly effective, a country needs to designate a senior lead officer and agency to drive a formal, coordinated strategy and message between the respective agencies responsible for domestic intellectual property administration, commerce, international trade, science and technology, and development, among others. Identifying and engaging at each “point” requires a formal, coordinated, whole-of-government approach for each country engaged in this agenda. Each of these points of engagement requires a government agency and official with the right talking points, background materials, and direction. This type of internal coordination is common with many international issues, and may already be happening to some degree in many countries, although more often on an ad hoc or informal basis. To be truly effective, a country needs to designate a senior lead officer and agency to drive a formal, coordinated strategy and message between the respective agencies responsible for domestic intellectual property administration, commerce, international trade, science and technology, and development, among others. The U.S. Intellectual Property Enforcement Coordinator provides a useful model. By formalizing this coordination, a country also sends a signal—both internally and externally—that intellectual property is a priority and the government is taking a comprehensive and coordinated approach to engagement. An all points strategy is needed as the ideological battle over intellectual property unfolds across an increasing number of fronts as international discussions on shared public policy concerns touch upon IP. Intellectual property policymaking has devolved from core agencies involved in IP and trade to a plethora of global, regional, and issue-specific organizations and events. The problem is many of these well-intentioned discussions may put at risk the actual technological innovation needed to address a wide range of public policy issues if the outcomes of these disparate forums feature a particular ideological view about intellectual property: that weaker is better. The diverse coalition of proponents for weaker intellectual property have targeted many of these discussions as part of their own efforts to change the status quo set of international rules and norm-making. An all points strategy is needed as the ideological battle over intellectual property unfolds across an increasing number of fronts as international discussions on shared public policy concerns touch upon IP. A focal point for an all points strategy would obviously be the major multilateral organizations. In this context, the fact that WTO and WIPO are member-driven organizations is both an advantage and disadvantage. It is a disadvantage as progress (in terms of substantive new agreements on intellectual property protection and enforcement issues) requires broad agreement among the membership, while opposition takes only a few members. It is therefore easier for individual countries or groups of countries to stymie or veto proposals or discussions on many new issues, negotiations, and programs. Such coalitions of countries and nongovernment organizations have been effective in shutting down pro-IP efforts. Likewise, the United States and other supporters of intellectual property have largely been able to shut down corresponding efforts to weaken current rules. It’s a stalemate. However, this standoff actually suits the former parties’ interests given that they prefer to maintain the status quo as it allows them more time to find ways to undermine current rules. While engagement at these organizations may not necessarily lead to concrete outcomes (and may be an exercise in frustration), officials from the United States and other countries need to remain engaged, as playing effective “defense” is the first step in identifying or creating the opportunities to make the case for better and more effective IP rules and enforcement. As an extension of this, the United States and others need to ensure their engagement covers the full spectrum of organizations that discuss IP, as one consequence of the current stasis in the IP debate is proponents of weaker intellectual property rules have increased their efforts to target alternative forums that may not be based on member-state decisions and goals. These can take the form of a disparate range of settings within and outside of multilateral agencies in the form of conferences, committee discussions, projects, and studies that indirectly deal with IP as part of work on climate change, economic development, health, and other issues. While officials are well versed in their respective side of the standoff at WIPO and WTO, debating the issues at different forums raises the risk of a detrimental outcome for IP as it may involve officials that do not usually work on IP issues at the international level and so may not recognize proposals that target IP protections. While the outcomes of some of these engagements may be nonbinding and seem inconsequential, each event can influence the debate surrounding global norms on intellectual property if it leads to a statement, report, or other outcome that provides legitimacy to IP-weakening views. Similarly, the United States and others need to not only identify the forums wherein IP and innovation are part of the agenda, but also recognize (and if possible, prevent) the appointment of officials to key policymaking positions in these forums on the basis of their approach to IP and innovation. For example, in 2017, the executive board of UNITAID agreed to provide a number of anti-IP NGOs, such as the multi-million-euro-grant South Centre, to advocate for developing countries to undermine TRIPS through overly broad use of the agreement’s flexibilities.159 In a similar fashion, the UNDP asked prominent IP skeptic (and current head of the South Centre) Carlos Correa to write its official report on “Guidelines for the Examination of Patent Applications Relating to Pharmaceuticals,” which advocates countries use patentability requirements and exceptions to undermine IP.160 Nations that support robust IP need to be equally—if not more—supportive of pro-IP organizations. There are a wide variety of organizations globally, including think tanks and advocacy organizations, that support robust IP. IP-supporting nations should help them extend their voices, including by sponsoring speeches and meetings in various forums, both in Geneva and in developing nations. The UNHLP on Access to Medicines is another prominent example of how opponents of intellectual property have tried to use alternative mechanisms to support the changes they want. Established by former United Nations Secretary General Ban Ki-moon, the UNHLP focuses exclusively on intellectual property from the perspective of patent rights being a barrier to access to medicines, without looking at any number of the more-serious issues that factor into this issue, such as how governments and their health care systems (public and private) procure, distribute, and disseminate those medicines.161 Even in its blinkered approach, the UNHLP did not recognize the fundamental role intellectual property plays in the discovery of new medicines; the damage biopharmaceutical price controls do to the machinery of the medical discovery process; the need to invest more in both biomedical research and public health systems; and the need to reduce tariffs and taxes on biopharmaceutical products. Instead of holistically examining all the issues that affect access to medicines, the panel’s guidance is to examine the alleged “policy incoherence” between intellectual property rights, innovation, and affordable access to medicines. The UNHLP should be seen as a political enterprise given its failure to acknowledge existing work in this space, never mind that the three authoritative organizations that work on the cross-cutting issues of intellectual property, health, and trade—WTO, WIPO, and WHO—coauthored a report in 2013 that provided a holistic analysis of the issue and the many factors that affect access to medicines.162 While this issue is ongoing, and opponents have not been successful in having it formally adopted as part of future work at WHO or other organizations (due largely to opposition from the United States and others), it has not stopped proponents of weaker intellectual property from trying to use the formal and prominent nature of the report as a way to get it and its central tenets to form the basis of future work at the WHO and elsewhere. Nonagreement Cooperation: Connecting With the Growing Interest in Innovation One way to change the framing around intellectual property would be for the United States and likeminded nations to tap into the growing number of countries—such as Costa Rica, Estonia, and Peru—which have made innovation a priority and are looking for policy ideas, including on IP. In fact, at least 50 countries worldwide have created special agencies or foundations to maximize the innovation output of their enterprises and organizations—and virtually all of these countries have also articulated national innovation strategies.163 But to achieve this, the United States and likeminded countries will need to develop a more comprehensive and proactive strategy to engage—whether individually or collectively—with these countries to harmonize existing procedures and processes, and build institutional capacity to more effectively administer and enforce intellectual property rules. A more considered and active strategy for cooperation on IP will help countries that want to improve their innovation systems by sharing experiences, policies, and capacity-building efforts. These countries understand that relying on markets shaped by price signals alone will not generally be as effective as public-private partnerships in spurring higher productivity and greater levels of innovation. A wide range of studies have shown domestic policies such as support for a robust science and engineering workforce, an entrepreneurial culture, public investment in research, and favorable tax treatment of R&D all foster innovation.164 This type of engagement is mutually beneficial, as the receiving country improves its ability to leverage IP to support innovation, while the leading countries receive the assurance that intellectual property—whether foreign or domestic—will be better protected in the future. More of this type of cooperation complements the binding rules established in trade agreements, as they can help ensure these rules or those enacted unilaterally are enacted and operationalized; helping to ensure these rules do not just exist on paper. It is also a useful complement, both to trade agreements and supporting innovation, as not every intellectual property issue that may impact trade and innovation can be dealt with in a trade agreement. One way to change the framing around intellectual property would be for the United States and likeminded nations to tap into the growing number of countries—such as Costa Rica, Estonia, and Peru—which have made innovation a priority and are looking for policy ideas, including on IP. Each country’s lead intellectual property agencies—such as **the U.S. Patent and Trademark Office and the European Union Intellectual Property Office—should** take a leading role in operationalizing this strategy to **engage with developing countries interested in improving their intellectual property systems.** This would complement, and extend, similar convening and capacity building work being performed by WIPO. Existing arrangements outline how this type of engagement by specialist IP offices could be achieved. The “five IP offices” (IP5) o**f the European Union, Japan, Korea, China, and the United States should work together to improve the efficiency of the examination process for patents worldwide.** The heads of the IP5 offices meet annually to decide on strategy and review progress. They also operate a number of working groups on various patent-assessment issues and potential harmonization efforts.165 Related to this, the U.S. Patent and Trademark Office expanded its Office of International Patent Cooperation with a new division that focuses on international outreach. In addition, **one or more leading nations should work with a third party to organize a global innovation policy conference that would** focus on these nations and help them learn from each other, including how to **develop a stronger IP system.** In an ideal world, WIPO and WTO would take on this type of cooperation and engagement because of their broad membership and technical expertise. But due to institutional and ideological reasons, both organizations are inherently limited in what they can do. WIPO does (and can continue to) play a constructive role in providing technical advice and capacity building, on request, to member states on intellectual property laws and other issues. While this work has largely escaped critique, the ideological opposition that has come to define the debate on intellectual property at both organizations largely stops or stymies deliberations around new IP rules and enforcement, or expanded programs of engagement and cooperation. Increasing Funding for Targeted Technical Assistance and Capacity Building **The world’s leading innovative countries need to support their case for renewed emphasis on IP and innovation by providing** new or **higher levels of targeted funding to help developing countries that are** genuinely **committed to improving their economies’ ability to develop, use, and administer intellectual property.** WIPO’s technical assistance portfolio is a prime vehicle for renewed funding and activity given its work on patents, trademarks, industrial designs, geographic indications, and copyrights. The WIPO technical assistance work focuses on three main areas of activities: national IP strategies, policy and legislative advice, and IP office business solutions.166 WIPO has long-term relationships with a number of key donor countries through its Funds in Trust (FIT) program, wherein they provide developing countries and countries with economies in transition FITs for human capacity building projects and technical assistance. Donors often use FITs to target programs for specific issues, countries, and regions of interest. Some of the world’s leading innovation nations provide significant funds for WIPO’s FIT program, while others are clearly absent (see Figure 2). For 2018–2019, Australia, China, France, Italy, Japan, Mexico, Portugal, Korea, and Spain all contributed resources to the FIT. There are some obvious omissions from the list of FIT donors, such as the United States, Germany, Norway, and Sweden. If the United States wants to be a global leader in trade and innovation, and wants others to follow in its footsteps, it is vital that America contributes to the program as well. The USPTO contributed 63,000 swiss francs (approximately $61,000 at the time) in 2017. Figure 2: Amount Contributed by Developed Countries to the WIPO Funds-in-Trust Program167 For example, Australia uses its FIT to improve IP and innovation systems in the Asia-Pacific region. The fund was established in 2012 through a $2 million AUD contribution from the Australian government funded under Australia’s multilateral “Aid for Trade” program. A further contribution of $3 million AUD was made in 2015 to continue to advance WIPO’s Development Agenda through the delivery of technical assistance.168 Meanwhile, Japan has long used FIT to provide a range of technical assistance and capacity building to developing countries in the Asia-Pacific and Africa.169 The world’s leading innovation countries should evaluate their bilateral development programs relating to IP and their approach to multilateral mechanisms such as the FIT at WIPO to see where they can amplify their efforts. One aspect of this would be for developed countries to contribute to a global fund to further support the program. Countries could pool their funds to target research in specific topics or regions (much like FIT donors get WIPO to provide technical assistance on particular issues in particular regions). As with other international development-focused programs, donor countries could build assistance into aid programs and resources. This effort certainly should not be the primary responsibility of any one country, but **the United States and other developed countries have the ability to** contribute to the FIT to **make a global Established** (previously Experimental) **Program to Stimulate Competitive Research (EPSCOR)a reality, further driving** science, technology research, and **IP globally.** Proposal for a Global Program to Support Scientific Research in Developing Countries A targeted program that supports well-justified and supported scientific research activity in developing countries would offer a valuable and productive tool for policymakers to improve their domestic capacity to engage in innovative activity and develop and use intellectual property. **The existing U.S. program EPSCOR provides a model that** relevant **international institutions and leading donor countries** (as well as private firms, potentially) **could use in working together to support promising centers of research in the developing world,** thereby improving their ability to compete for other research funds and conduct increasingly advanced research activities. A global EPSCOR-like program would demonstrate the international community’s commitment to science and technology innovation research in the less-developed parts of the world. However, **at the heart of such a program would be a demonstrated commitment to the protection of intellectual property.** The U.S. Congress established EPSCOR at the National Science Foundation (NSF) in 1978 to address congressional concerns about an “undue concentration” of federal R&D funding in certain U.S. states. The program is designed to help institutions in eligible states build infrastructure, research capabilities, and training and human resource capacities to enable them to compete more successfully for open federal research and development-funding awards. Eligibility for NSF EPSCOR funding is limited to states (including some territories and the District of Columbia) that received 0.75 percent or less of total NSF research and related activities funds over the most recent three-year period.170 EPSCOR is a proven, successful model four other U.S. government agencies have replicated as part of efforts to encourage research in specific areas across the United States, including the Department of Energy, National Aeronautics and Space Administration, U.S. Department of Agriculture, and the National Institutes of Health. EPSCOR programs were also previously active at the Environmental Protection Agency and the Department of Defense. In 1979, EPSCOR received about $1 million in funding. In 2015, it and EPSCOR-like programs at other agencies received a collective annual program budget of over $500 million.171 Submitting a proposal to the United States’ EPSCOR program involves a number of steps and stakeholders, in part, to assure they are well-developed. EPSCOR proposal evaluations follow the merit-based, peer-review process used for the vast majority of NSF’s competitive awards. Each relevant U.S. state sets up an EPSCOR body, which tends to involve local researchers, universities, and institutions, to solicit and develop research proposals to submit to the central funding body within NSF (or the other U.S. government agencies). There are two primary review processes. The first option is for the local program to be divided up by region, with each participating state or group of states soliciting proposals from local researchers, and then requesting money from the central funding body (such as NSF). The second option is for proposals to be submitted directly to a review board based on the area of research involved, which entails multiple review boards composed of qualified academic, government, and industry experts. In either case, the review board has the power to approve, reject, or solicit research proposals for support and funding. **A global EPSCOR could be funded through a number of different mechanisms and stakeholder**s. The institutional framework for this program could be a specialized program under WIPO, given its relationship with key donors and its mission being “to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all.”172 Donors could fund this program through an additional FIT arrangement specifically made to support such a global EPSCOR. Just as EPSCOR started under NSF and extended to other specific agencies, so could a global EPSCOR, such as with health-specific programs (managed by WHO) and environment-specific issues (managed by UN Environment). Crucial to a global EPSCOR would be a transparent process, an expert review board, and clear rules for country eligibility and project criteria. Only countries with a proven track record and commitment to protecting and supporting intellectual property would be eligible—not scofflaw countries that use policy to undermine intellectual property, such as through compulsory licenses or forced technology transfers. The program should be open to the countries that have taken clear steps to improve their domestic policy framework, IP enforcement, and research capacity, such as through WIPO technical assistance and other mechanisms. CONCLUSION Just as post-World War II trade agreements aimed at facilitating access to foreign markets for physical goods in a deliberate effort to maximize the gains from comparative and competitive advantage, so would the approach outlined in this paper seek to do this for services and knowledge-based goods, but with the aim of maximizing innovation. However, there is nothing inevitable about the process of countries pursuing ever-closer economic integration or working to address modern barriers to trade and innovation. Policymakers face a similar challenge in deciding what policies they should enact to give their workers and firms the best opportunity to thrive. IP-based innovation should be a key focal point in the process. As part of this, countries need to recognize that they can support their own ability to innovate and compete in new technology without undermining the ability of others to successfully compete and contribute to the world’s overall ability to drive innovation. These goals are not mutually exclusive. Furthermore, as it relates to the traditional dichotomy that still permeates the ideological opposition to intellectual property at the international level, it is not about “North vs. South” anymore, it is about whether one lives in a country whose policymakers understand that stronger intellectual property rights are beneficial for innovation and economic growth. Recognizing this, countries need to adjust their traditional pursuit of economic policy, including intellectual property, at the international level, and pursue a new approach, as the costs of the status quo (in terms of the rules set by TRIPS) and stasis (in terms of new rules and debates) will only continue to rise as the gap between these rules and modern technology and business practices grows. The ideas outlined in this report make the case for the world’s top innovators to lead the charge in shaping a new agenda, and explain how they can achieve this. The ideas are based on some degree of continuity with current trade policies and institutions, and to a degree on new ones. At its heart, the strategy recognizes that **leading countries need to take charge in order to break through the stalemate at the multilateral level, and to not allow opponents’ ideological anchoring to hold back efforts to build an international framework for intellectual property that better supports global innovation.**

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## Strong IPR attracts high foreign direct investment-empirics in 14 South Asian countries prove

Arshad Muhammad **Khan &** Ghulam **Samad,** Applied Econometrics and International Development, "INTELLECTUAL PROPERTY RIGHTS AND FOREIGN DIRECT INVESTMENT: ANALYSIS OF 14 SOUTH AND SOUTH EAST ASIAN COUNTRIES, 1970-2005", 20**10**, https://www.usc.gal/economet/reviews/aeid10116.pdf

Applied Econometrics and International Development Vol. 10-1 (2010) INTELLECTUAL PROPERTY RIGHTS AND FOREIGN DIRECT INVESTMENT: ANALYSIS OF 14 SOUTH AND SOUTH EAST ASIAN COUNTRIES, 1970-2005 KHAN; Muhammad Arshad\* SAMAD, Ghulam Abstract: The main focus of this paper is to examine the impact of intellectual property rights (IPRs) and economic freedom of the world (EFW) on inward foreign direct investment (FDI) in a panel of fourteen developing South Asian and Southeast Asian countries over the period 1970-2005. We find that besides other variables IPR exerts positive and significant impact on FDI while EFW produces negative impact on FDI. This implies that property rights protection, good quality institutions and more economic freedom encourages foreign investors to invest more in production sectors and focus less on distributional networks. Key Words: Intellectual Property Rights, Economic Freedom of the World, Foreign Direct Investment, South Asian and Southeast Asian Countries, Panel Data JEL Classification: F23, O34, R38, C23 1. Introduction Many authors (Blomstrom et al., 1994, Mody and Wang, 1997, Oloffsdotter, 1998, Sjoholmn, 1999, Ngowi, 2001, Kobrin, 2005 and Kumar and Pradhan, 2002) consider FDI to be an engine of host country’s economic growth, because FDI may enhance capital formation and employment generation, promote manufacturing exports, bring management know-how, access of skilled labour to international production networks and established brand names and technology transfers and spillover effects. In the light of important contributions that FDI delivers to both home and host countries, it is useful to analyze its impacts on growth of the domestic economy (Zhang, 2001). Over the past two decades, the flows of foreign direct investment (FDI) to developing countries have had profound impacts on global production networks. An enabling economic environment and attitude towards FDI in recipient countries affect the decisions of the multinational corporations to invest abroad. There are many distinguishing characteristics of FDI including its stability, ease of service relative to commercial debts and inclusion of non-financial assets in production and sale processes (Brooks and Hill, 2004). Apart from increasing output and income of host countries, there are many other potential benefits of FDI including the benefits of superior technology, foreign investment increases competition, increases domestic investment, economies of scale, market access abroad and bridging foreign exchange gaps in the host countries. Furthermore, inflow of foreign \* Muhammad Arshad Khan, Senior Research Economist, Pakistan Institute of Development Economics, Islamabad, arshadkhan82003@yahoo.com and Ghulam Samad, Research Associate (Vision 2030), Planning Commission of Pakistan, Islamabad, ghulamsamad@hotmail.com Acknowledgement: We are grateful to Dr. Asad Zaman Professor of Econometrics, Dr. Pervez. Z. Janjua Foreign Professor and Dr. Abdul Jabbar Associate Professor, International Islamic University Islamabad (Pakistan) for their valuable comments and suggestions on the earlier draft of the paper. We would also like to thank Dr. Shaukat Naizi Planning Commission, Government of Pakistan and Mr. Yasin Tahir Director General Intellectual Property Organization, Government of Pakistan for their appreciation and encouragement Applied Econometrics and International Development Vol. 10-1 (2010) 220 capital reduces the scarcity of capital and raises the productivity of labour and reduces income disparities in the host country. However, the benefits of FDI to host country are smaller in the presence of weak domestic institutions and weak intellectual property rights (IPR). Since the late 1990s, the literature has been focusing on the quality of domestic institutions as key cross-country differences in growth rates and per capita income (IMF, 2003 and Acemoglu et al., 2005). Particularly, the efficient protection of civil and property rights, extended economic and political freedom and low levels of corruption have been associated with higher prosperity (Quere et al., 2007). There is now growing agreement among the economists that protection of IPR, economic freedom and good quality institutions are supposed to exert positive influence on economic growth through the promotion of FDI (Kinoshina and Campos, 2003; Meon and Sekkat, 2004 and Brooks et al., 2003). Weak IPR, institutions and economic freedom discourages foreign investors in investing technologyintensive sectors and encourages investors to focus on distribution rather than production (Smarzynska, 2002 and Javorcik, 2004). The literature suggests that good governance, better quality infrastructure, good institutions and strong enforcement of IPR and strong judiciary system in the host country attract foreign investors (Wei, 2000 and Quere et al., 2007; Selowski and Martin, 1997; Hall and Jones, 1999; Smarzynska, 2002 and Acemoglu et al. 2001 and 2002). Keeping in mind the importance of IPR and economic freedom of the world (EFW) in attracting FDI, this paper explore the link between FDI, IPR and EFW in a panel of 14 South Asian and Southeast Asian countries including Bangladesh, China, Hong Kong, Indonesia, India, Japan, Korea, Malaysia, Nepal, Pakistan, Singapore, Sri Lanka, Thailand and Vietnam using unbalance panel over the period 1970-2005. We employ fixed effect panel specification for the empirical analysis. The rest of the paper is organized as follows: section 2 briefly reviews the empirical literature. Graphical presentations of IPR, FDI and EFW are discussed in section 3, Model specification, methodology and data are discussed in section 4. Empirical findings are interpreted in section 5, while some concluding remarks are given in the final section. 2. Literature Review The recent literature on FDI has been mainly concentrated on the importance of IPR, EFW and good quality institutions. The impact of these factors has so far been little investigated in the context of developing countries. Wheeler and Mody (1992) considers an index of 13 risk factors including bureaucratic red tape, political instability, corruption and the quality of the legal system. They did not find a significant impact of good institutions on US foreign affiliates. Wei (1997 and 2000) has pointed out corruption as a major impediment to FDI. Stein and Daude (2001) argue that FDI is significantly influenced by the quality of institutions. Kaufman et al. (1999) suggest that political instability and violence, ineffectiveness of government, regulatory burden, rule of law and graft are the major determinants of outward FDI. The connection between technological capabilities of a firm and its decisions regarding FDI is  highlighted by Dunning (1993) as OLI paradigm. OLI explains activities of multinational corporations (MNCs) in terms of ownership (O), location (L) and international advantages (I). Weak IPR increases the probability of imitation which 221 erodes firm’s ownership advantages and decreases location advantages of a host country. Similarly, weak IPR increases the benefits of internationalization with a greater risk of licensee’s breaching the contract and acting in direct competition with the seller (Javorcik, 2004). Therefore, weak IPR deters FDI. A strong IPR may also have a negative impact on FDI by making licensing a viable alternative to FDI (Ferrantino, 1993; Yang and Maskus, 2001 and Oxley, 1999). Empirical findings of the relationship between IPRs and FDI are of diverse nature in developing countries. Helpman (1993) shows that strengthening of IPR lowers the inflow of FDI. He suggests that instead of IPR, other factors such as market competition are important component for FDI profitability. Kondo (1995) finds no evidence supporting the hypothesis that FDI is affected by patent protection. Lee and Mansfield (1996) argue that weak IPR regime in developing countries may lower the investment of MNCs in these countries or they will invest only in wholly owned subsidiaries (not joint ventures with local partners) or they will transfer only older technology. But there is little evidence in this regard. Their result shows that the country system of IPR protection influences the volume and composition of US direct investment. Countries with weak protection may have certain legal, social, and economic structures that tend to discourage FDI. Seyoum (1996) examined the relationship between IPR and FDI and analyzed whether a governments can attract FDI more effectively through macroeconomic policy, or strengthening of IPR. The results suggest that for less developed countries policy factors (market size, pubic investment, external debt and exchange rate stability) explain 21 percent and IPR factor 13 percent of the variation in FDI flows. For the emerging economies policy factors account for 28 percent while IPR factor 43 percent of the FDI flow variation. For the developed economies enforcement is the most important concern. Yang and Maskus (1998) consider licensing as an important form of technological transfer. Whereas FDI is an indirect channel of technology trade, licensing is a direct mechanism for technology transfer, which had been ignored in the literature of economists. Rent sharing is one of the important components observed in licensing contracts. The license rents are used to deter imitation. They concluded that under stronger IPR regimes it is difficult for the licensee to imitate the licensors product. Lesser (2002) suggest that stronger IPR increases both FDI and imports. His results imply that at global level a one point increase in the IPR score will increase FDI by $1.5 billion and imports by $8.9 billion. Among others factors the level of industrialization is important factor, e.g. less industrialized countries can expect modest affect of IPR strength on FDI and imports. Similar results are found by Lesser and Lybbert (2002). Yadong Lue (2001) suggests that wholly-owned entry mode is preferred when intellectual property rights are not well protected, the number of firms in the industry is growing fast, the need for global integration is high, or the project is located in open economic regions. Nunnenkamp and Spatz (2005) argued that transnational corporations (TNCs) transfer of modern technology to their foreign affiliates depend on the capacity to absorb FDI, openness to trade and institutional development of the host country. The other factors such as rule of law, the degree of corruption, the quality of public management, the protection against property rights infringements and discretionary government interference is also very important in attracting FDI. Similar observations are given by Fink (2005), You and Katayama (2005), Yang and Maskus (2005), Javorcik (2005), You and Katayama (2005) and Maskus (2005). Applied Econometrics and International Development Vol. 10-1 (2010) 222 In the light of above literature we concluded that IPR and EFW play a crucial role in attracting FDI besides other factors. Therefore, research is needed to investigate the links between EFW, IPR and FDI in the context of Asian and Southeast Asian countries. 3. Graphical Presentation For the comparative analysis of IPR and FDI we use separate graphs because it is very difficult to draw combined graphs for 14 countries and average of 8 years. The IPR protection index range from 0 to 5 and 5 indicates maximum protection. It is evident from Figure 1 and Figure 2 that countries like Hong Kong, Japan, South Korea, Singapore and later years in China, Malaysia etc. shows maximum IPR protection. In these countries the percentage share of FDI to GDP is also higher. Figure 1: Intellectual Property Rights Protection (IPR) Index for a Panel of 14 Countries IPR Protection 0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00 Inde x of IPR 1970 1.18 2.30 0.33 1.03 2.40 2.12 1.59 1.79 1.05 1.51 1.94 0.75 1975 1.47 2.30 0.33 1.03 2.78 2.25 1.59 1.79 1.05 1.51 1.94 0.75 1980 1.47 2.50 0.33 1.03 3.43 2.45 1.59 1.79 1.05 1.71 2.58 1.21 1985 1.47 1.33 2.70 0.33 1.03 3.43 2.65 1.92 1.79 1.18 1.71 2.78 1.21 1990 1.47 1.33 2.70 0.33 1.03 3.88 3.69 2.05 1.79 1.18 2.04 2.78 1.21 1.38 1995 1.87 2.12 2.90 1.56 1.23 4.42 3.89 2.70 1.79 1.38 3.88 2.98 2.41 2.90 2000 1.87 3.09 3.81 2.47 2.27 4.67 4.13 3.03 1.79 2.20 4.01 3.11 2.53 2.90 2005 1.87 4.08 3.81 2.77 3.76 4.67 4.33 3.48 2.19 2.40 4.21 3.11 2.66 3.03 Banglad esh China Hong Kong Indonesi a India Japan Korea Malaysia Nepal Pakistan Singapor e Srilanka Thailand Vietnam Countries like China, India, Malaysia, Pakistan, Bangladesh, Indonesia and Nepal lie below the average level (i.e. 2.5) of IPR protection up to the year 1995, but after 1995 China, Malaysia, Sri Lanka and India etc. were progressed above average level of IPRs protection and Hong Kong, Japan, Singapore and South Korea reached to the maximum level of IPR protection. The level of IPRs protection significantly influences FDI. The countries lie below the average level of IPR showing very little share of FDI to GDP. However, China, Malaysia, Srilanka and India are protecting the IPR since 1995 and onwards, showing a 223 moderate share of FDI to GDP. Similarly, countries with highest IPR protection have significant large positive impact on FDI. So it is from the figure 1 that IPR protection will lead to increase FDI (figure 2). Figure 2: Net Foreign Direct Investment for a Panel of 14 Countries Net Foreign Direct Investment 0.00 0.60 1.20 1.80 2.40 3.00 3.60 4.20 4.80 5.40 6.00 6.60 7.20 7.80 8.40 9.00 9.60 10.20 10.80 11.40 12.00 12.60 13.20 13.80 14.40 15.00 15.60 16.20 16.80 17.40 18.00 18.60 19.20 19.80 20.40 21.00 N et FD I as % of G D P 1970 0.00 0.00 0.00 1.51 0.08 0.00 0.00 2.20 0.00 0.23 0.00 -0.01 0.60 0.00 1975 0.00 0.00 0.00 2.66 0.04 0.00 0.00 3.13 0.01 0.08 6.43 0.02 0.81 0.00 1980 0.00 0.02 0.00 0.79 0.01 0.01 0.15 3.11 0.01 0.18 6.31 0.50 0.40 0.00 1985 0.00 0.33 0.00 0.27 0.03 0.03 0.13 3.74 0.01 0.26 8.35 0.83 0.72 0.00 1990 0.01 0.90 0.00 0.62 0.06 0.01 0.44 2.94 0.06 0.47 12.48 0.57 1.68 0.58 1995 0.02 4.21 0.00 1.41 0.25 0.03 0.26 6.98 0.00 0.79 9.93 1.11 1.51 7.25 2000 0.36 4.08 20.20 0.11 0.68 0.13 1.29 4.46 0.24 0.94 14.27 1.42 3.63 6.64 2005 0.58 3.20 13.90 0.12 0.92 0.15 0.73 2.66 0.11 1.09 13.71 1.17 1.82 3.78 Banglad esh China Hong Kong Indones ia India Japan Korea Malaysi a Nepal Pakista n Singapo re Srilanka Thailan d Vietnam Economic Freedom of the World (EFW) covers security of private property rights, rule of law, legal structure, and feasible monetary and fiscal policy. Figure 3 indicate that countries like Hong Kong, Japan, South Korea, Singapore having highest WEF index followed by countries India, Malaysia, Sri Lanka, Thailand , Bangladesh, China, Indonesia, and Pakistan. Literature suggests that higher economic freedom will results in a higher FDI. However, our findings are contrast to the theory and suggest that EFW is not significantly contributing to the inflow of FDI. The reason could be that except EFW other important determinants of FDI such as, investment risk, corruption, market size, domestic investment climate and internal conflicts etc are the factors decreasing FDI in Pakistan, India, Bangladesh, Sri Lanka, Nepal, Indonesia, Thailand etc. The structure of middle income and developing countries does matter in order to attract FDI. Other things like political and civil liberty rights are needed to be address. In case of Vietnam irrespective of EFW index still it attracts FDI Applied Econometrics and International Development Vol. 10-1 (2010) 224 Another important could be the longer period covering from 1970-2005 for a panel of 14 countries. During this period the inherited behavior of many factors such as socialistic structure of some countries, partition of some countries, wars, exchange rate etc. in these countries substantially differs which may reflected in low FDI periodically. Figure 3: Economic Freedom of World Index for 14 Countries Economic Freedom of The World 0.00 0.35 0.70 1.05 1.40 1.75 2.10 2.45 2.80 3.15 3.50 3.85 4.20 4.55 4.90 5.25 5.60 5.95 6.30 6.65 7.00 7.35 7.70 8.05 8.40 8.75 9.10 9.45 9.80 Index of EFW 1970 8.24 4.8 4.90 6.22 5.36 6 4.30 7.45 5.68 1975 2.80 8.27 5.30 4.10 5.88 5.36 5.90 3.70 7.26 5.56 1980 3.00 3.80 8.51 5.20 4.90 6.38 5.65 6.40 5.30 4.50 7.53 4.90 5.87 1985 3.30 4.80 8.25 6.20 4.60 6.45 5.70 6.50 4.80 5.10 7.89 5.00 5.91 1990 4.20 4.20 8.54 6.60 4.80 7.10 6.33 7.10 5.10 5.00 8.52 4.90 6.75 1995 5.00 4.90 9.09 6.60 5.50 6.95 6.75 7.20 5.20 5.70 8.85 6.10 7.18 2000 5.70 5.80 8.79 5.90 6.20 7.33 6.63 6.80 5.80 5.40 8.51 6.10 6.66 2005 5.75 5.82 8.72 5.82 6.40 7.22 6.97 6.52 5.57 5.70 8.50 6.02 6.62 Banglad esh China Hong Kong Indonesi a India Japan Korea Malaysia Nepal Pakistan Singapor e Srilanka Thailand Vietnam 4. Model Specification, Methodology and Data The major objective of the multinational corporations (MNCs) is to maximize the profits from their investment. They have no keen interest to in invest in countries having no or limited profit opportunities. In general MNCs prefer countries with stable governments, sound economic policies, reasonable infrastructure, rules of intellectual property rights and well developed state institutions and greater economic freedom (Hermes and Lensink, 2003; Durham, 2004; Alfaro et al. 2004 and Basue and Groizard, 2005). These factors allow MNCs to establish new businesses and expand the existing one in recipient country. In this way, recipient countries benefits inward investment to achieve higher economic growth. The literature suggests that market size, reasonably good infrastructure, skilled work force, trade openness, good quality institutions and IPR are the main determinants of FDI. For the purpose of analyzing the effects of different factor on FDI in countries with different levels of income, we specify the following model: 225 ( 1,2, , ; 1,2, , ) 1 2 3 4 5 6 i N t T FDI Y IY L TOP IPR EFW v it i it it it it it it it                 (1) Where it i it v u   FDI is annual inflows of foreign direct investment as percentage of GDP. Y is real GDP per capita used as measure of market size; IY is the gross domestic investment as percentage of GDP used as a proxy for capital. Population growth is used as proxy for labour, TOP is the trade openness; IPR is the intellectual property right index, while EFW is the index of economic freedom of world. The error term it v is composed of i u , which is time invariant and accounts for any unobservable individual source country-specific effect that is not included in the regression and it  is assumed to be white noise (Kimino et al. , 2007). Our data set is unbalanced and consisting of maximum 36 observations of each country. Thus panel data estimation technique is more appropriate to obtain efficient parameters as compared to single-country estimation. Baltagi (2001) and Hsiao (2003) notes that panel data is more informative, more variable, less collinearity among the variables, more degree freedom and more efficient over time series or cross-section data. Furthermore, panel estimation allows controlling for individual country heterogeneity and enabling to minimize misspecification bias (Kimino et al., 2007). The econometric methodology proceeds in three steps. First, we employ panel unit root tests namely, MW (Maddala and Wu, 1999 and Choi (Choi, 2001) to determine the order of integration of the individual series. In the second step, conditional on the findings that all variables are integrated of order I (1) we examine for the cointegration using the approach proposed by Kao (1999) and Pedroni (1999). Finally, conditional on cointegration findings, we apply Panel Dynamic Least Squares (PDOLS) technique to estimate the long-run coefficients. The data set consists of a panel of 14 countries (i.e. Bangladesh, China, Hong Kong, Indonesia, India, Japan Korea, Malaysia, Nepal, Pakistan, Singapore, Sri Lanka, Thailand and Vietnam) for the period 1970-2005. FDI is the net inflows as percentage of GDP; Real GDP is calculated as nominal GDP of each country divided by CPI (2000=100) of each country. Real GDP per capita (Y) is calculated as real GDP divided by population of each country. IY is the gross fixed capital formation as percentage GDP is taken as proxy for domestic investment. TOP is the trade openness which is calculated as the exports plus imports divided by GDP. Population growth is used as proxy of labour for each country. Data on these variables are taken from World Development Indicators (WDI) 2007. Intellectual property rights (IPR) and economic freedom of the world (EFW) indices are taken from Ginarte and Park (1997) and Gwartney and Lawson (2001) respectively. 5. Empirical Findings Before estimating equation (1), we first check the order of integration of each variable using two Fisher-Augmented Dickey-Fuller (Fisher-ADF) panel unit root test namely, MW (Maddala and Wu, 1999 and Choi (Choi, 2001). The results are reported in Table 1 in the Annex.It is clear from the results reported in Table 1 that each specification of the panel unit root tests (i.e. no trend and constant (none), only constant and trend and constant) rejects the null hypothesis of unit root for all the series except for it IPR and Applied Econometrics and International Development Vol. 10-1 (2010) 226 EFWit . This implies that all other variables are stationary at their levels i.e. I (0). For intellectual property right ( it IPR ) and economic freedom of the world ( EFWit ) we reject the null of unit root when linear trend and constant and linear trend are excluded. On the whole, we conclude that all the series are stationary. Since all the variables are stationary at their levels, therefore, we proceeds further with pooled based fixed and random effects specification given by equation (1). Table 2 presents the results for pooled ordinary least squares (PLS), fixed effects (FE) and random effects (RE). To account for cross-section heterogeneity, we have estimated fixed effect and random effect models using cross section weights. Therefore, the estimates are robust to cross-correlation and differenced error variances in each crosssection. However, the results are the same in almost all the specifications. The Hausman statistic is insignificant suggesting that fixed effect model is more appropriate. Furthermore, the applicability of the fixed effect model is more reliable because it doers not require the assumption of no correlation between the country specific effects (Kimino et al., 2007). Real GDP per capita, domestic investment, labour and trade openness exerts positive and significant effects on foreign direst investment. The positive and significant coefficient of real GDP per capita suggests that the larger the size of the market the greater will be the absorptive capacity. The positive correlation between FDI and GDP implies the possibilities of increases in the demand for goods and services and economies of scale in the recipient countries. This result also suggests that GDP per capita covers attractive features such as consumer’s purchasing power, labour productivity and institutions (Quere et al., 2007). Table 2: Results of FDI and Intellectual Property Rights Independent Dependent Variable: FDI Variables PLS FE RE Constant -0.004 (-0.092) -0.004(-1.038) -0.003 (0.071) Y 5.54E-05 (3.392)\* 5.54E-05 (1.756)\*\*\* 5.43E-05 (3.568)\* IY 0.046 (3.172)\* 0.046 (2.009)\*\* 0.050 (3.595)\* L 0.353 (2.719)\*\* 0.353 (1.748)\*\*\* 0.345 (2.821)\*\* TOP 0.039 (20.729)\* 0.039 (4.880)\* 0.038 (22.068)\* IPR 0.238 (1.925)\*\* 0.238 (0.903) 0.216 (1.833)\*\* EFW -0.641 (-8.933)\* -0.641 (-2.943)\*\* -0.645 (-9.417)\* No.observations 2 R 2 R SSR 473 0.64 0.63 320.85 473 0.64 0.63 320.85 473 0.64 0.63 323.90 Hausman test - (6) 1.37 2   [0.968] Note: t-values are given in (.). \*, \*\* and \*\*\* indicate significant at the 1%, 5% and 10% level of significance respectively. The Random effect model is estimated by employing the Swamy and Arora estimator of component variance. [.] indicate p-values. The positive coefficient of labour suggests that as the population growth in recipient countries increases, the demand for goods and services also increases. To meet this increased demand the recipient countries not only concentrate on domestic 227 investment but also attract foreign investment. Consequently, market size in the recipient countries increases (Nunnenkamp and Spatz, 2002, 2004). The positive and significant coefficient of domestic investment suggests FDI crowding-in effect on domestic investment rather than crowding-out effect. The reason could be that when the recipient countries provide conducive environment for business and investment such as infrastructure facilities, availability of inputs and skilled and trained labour, technologies etc., it not only effects domestic investment but also provides incentives to foreign investors to invest more in the host countries. The positive and significant coefficient of trade openness suggests that trade openness give rise to opportunities of importing required capital goods. In this way, openness generates trade inducing effects. Furthermore, the positive coefficient indicates that source countries with stronger export performance are more likely to establish direct production in the investing countries. The main focus of this study is to examine the effect of intellectual property rights on inward FDI. The intellectual property right (IPR) exerts positive and significant effect on FDI. This implies that the protection of IPR play an important role in attracting FDI and advanced technology production processes (Brooks et al., 2003). Weak intellectual property protection discourages foreign investors in investing technologyintensive sectors that are heavily relying on IPR. Furthermore, weak IPR laws discourage foreign investors to undertake investment project and they focus mainly on distribution rather than local production (Smarzynska, 2002 and Brook et al. 2003). Finally, economic freedom of the world (EFW) index effect FDI negatively. This implies that deterioration of economic freedom adversely affect FDI. Negative correlation between FDI and EFW suggest that the weaker the institutions in the host country the negative will be the impact on inward FDI.1 The negative relationship between FDI and EFW is due to factors such as strictness to enter the market or create a company, weak bankruptcy laws, weak judicial system, high level of corruption, weak concentration of capital and existence and enforcement of labour laws, inefficient bureaucracy and insecurity of property rights (Quere et al., 2007). The impact of a weak concentration of capital could be linked to agglomeration forces and the existence of public monopolies (Quere et al., 2007).On the whole, the empirical results indicate that real GDP per capita, domestic investment, labour, trade openness and intellectual property encourages foreign investors to invest abroad. The protection of intellectual property rights encourages MNCs in investing local production as well as distribution. Economic freedom of the world exerts negative impact on inward FDI because of the weak domestic institutions. 6. Conclusions **The main focus of this paper is to examine the impact of intellectual property rights (IPR)** and economic freedom of the world **on** inward **FDI for a panel of 14** Asian an**d Southeast Asian countries** including Chin**a over the period 1970-2005.2 The results suggest that real GDP per capita, domestic investment, labour force, and trade openness exerts positive impact on FDI.** The coefficient o**f IPR is positively correlated to FD**I, 1 Basically EFW index covers security of private property rights, rule of law, legal structure and monetary and fiscal policies (see Janjua and Samad, 2008) 2 Countries included in the panel are: Bangladesh, China, Hong Kong, Indonesia, India, Japan, Korea, Malaysia, Nepal, Pakistan, Singapore, Thailand and Vietnam. Applied Econometrics and International Development Vol. 10-1 (2010) 228 **indicating that stronger IPR regimes increase the likelihood of FDI in production sector as well as in distribution networks.** The coefficient of economic freedom of the world exerts negative impact on FDI, suggesting that weaker  institutions, corrupt bureaucracy, weaker capital concentration and employment protection tend to reduce FDI. The main message of the analysis is that **the protection of i**ntellectual property right**s (IPR)** and economic freedom (i.e. good quality institutions, political and civil liberty rights etc**.) in recipient countries promotes FDI.** Therefore, host **countries should adopt** suitabl**e policies including stronger IPR protection** and economic freedom **to attract FDI.** References Acemoglu, D., S. Johanson and J. Robinson (2005), “Institutions as The Fundamental Cause of Long-run Growth”, in P. Aghion and S. Durlauf (eds.) 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Z-stat (Choi-test) None Without trend With trend None Without trend With trend FDI it 153.50 (0.000)\* 76.79 (0.000)\* 59.43 (0.000)\* -8.79 (0.000) -5.28 (0.000)\* -4.02 (0.000)\* Yit 87.37 (0.000)\* 37.88 (0.100)\*\*\* 34.53 (0.184) -6.34 (0.000)\* -2.32 (0.010)\*\* -1.91 (0.028)\*\* it IY 81.42 (0.000)\* 27.74 (0.478) 16.40 (0.959) -5.88 (0.000)\* -1.03 (0.152) 1.05 (0.853) Lit 287.43 (0.000)\* 131.05 (0.000) 106.07 (0.000)\* -13.09 (0.000)\* -6.92 (0.000)\* -1.67 (0.048)\*\* TOP it 109.59 (0.000) 51.87 (0.002)\*\* 33.91 (0.086)\*\*\* -7.56 (0.000)\* -3.55 (0.000)\* -2.10 (0.018)\*\*\* it IPR 87.31 (0.000)\* 35.71 (0.150) 29.30 (0.398) -6.32 (0.000)\* -1.98 (0.024)\*\*\* -1.04 (0.148) EFWit 86.24 (0.000)\* 27.70 (0.373) 10.91 (0.996) -6.43 (0.000)\* -1.39 (0.082)\*\*\* 1.57 (0.094) Note: \*, \*\*, \*\*\* indicate significant at the 1%, 5% and 10% level respectively. Figures in parentheses indicate the p-values Journal published by the EAAEDS: <http://www.usc.es/economet/eaa.htm>

**FDI improves incomes ‘and spurs growth in developing countries-empirics prove**

**OECD** , OECD, "Foreign Direct Investment for Development", 20**02,** https://www.oecd.org/investment/investmentfordevelopment/1959815.pdf

Foreign direct investment (FDI) is an integral part of an open and effective international economic system and a major catalyst to development. Yet, the benefits of FDI do not accrue automatically and evenly across countries, sectors and local communities. National policies and the international investment architecture play an important part in attracting FDI to a larger number of developing countries. It is the responsibility of the host countries to put in place a transparent, broad and enabling investment policy environment and to reinforce the human and institutional potentials necessary for such an environment. With most FDI flows originating in OECD countries, developed countries can contribute to advancing this agenda. They can facilitate the access of developing countries to international markets and technology, and ensure policy coherence for development more generally; encourage non-OECD countries to integrate further into rules-based international frameworks for investment; actively promote the OECD Guidelines for Multinational Enterprises, together with other elements of the OECD Declaration on International Investment; and share with non-members the peer review-based approach to building investment capacity. The publication from which this Overview is taken provides a comprehensive review of the issues related to the impact of FDI on development covering aspects such as economic growth, technology transfer, human capital, competition, corporate governance and environment. It reviews the policies needed to maximise the benefits. It is to be released in October 2002. 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All requests should be made to: Head of Publications Service, OECD Publications Service, 2, rue André-Pascal, 75775 Paris Cedex 16, France. Foreign Direct Investment for Development MAXIMISING BENEFITS, MINIMISING COSTS Overview ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT xxx Note by the editor This report was prepared within the framework of the activities of the Committee on International Investment and Multinational Enterprises (CIME). It is based on a study by the OECD Secretariat, which was reviewed by members and observers in the Committee at its meetings in December 2001 and April 2002. The process included consultations with the Business and Industry Advisory Committee, Trade Union Advisory Committee and other civil society partners of the Committee. This report has been approved for publication by the Committee. 3 © OECD 2002 Introduction Foreign direct investment (FDI) is an integral part of an open and effective international economic system and a major catalyst to development. Yet, the benefits of FDI do not accrue automatically and evenly across countries, sectors and local communities. National policies and the international investment architecture matter for attracting FDI to a larger number of developing countries and for reaping the full benefits of FDI for development. The challenges primarily address host countries, which need to establish a transparent, broad and effective enabling policy environment for investment and to build the human and institutional capacities to implement them. With most FDI flows originating from OECD countries, developed countries can contribute to advancing this agenda. They can facilitate developing countries’ access to international markets and technology, and ensure policy coherence for development more generally; use overseas development assistance (ODA) to leverage public/private investment projects; encourage non-OECD countries to integrate further into rules-based international frameworks for investment; actively promote the OECD Guidelines for Multinational Enterprises, together with other elements of the OECD Declaration on International Investment; and share with non-members the OECD peer review-based approach to building investment capacity. 5 © OECD 2002 Summary and Conclusions The present study focuses on maximising the benefits of foreign corporate presence… Developing countries, emerging economies and countries in transition have come increasingly to see FDI as a source of economic development and modernisation, income growth and employment. Countries have liberalised their FDI regimes and pursued other policies to attract investment. They have addressed the issue of how best to pursue domestic policies to maximise the benefits of foreign presence in the domestic economy. The study Foreign Direct Investment for Development attempts primarily to shed light on the second issue, by focusing on the overall effect of FDI on macroeconomic growth and other welfare-enhancing processes, and on the channels through which these benefits take effect. The overall benefits of FDI for developing country economies are well documented. Given the appropriate host-country policies and a basic level of development, a preponderance of studies shows that FDI triggers technology spillovers, assists human capital formation, contributes to international trade integration, helps create a more competitive business environment and enhances enterprise development. All of these contribute to higher economic growth, which is the most potent tool for alleviating poverty in developing countries. Moreover, beyond the strictly economic benefits, FDI may help improve environmental and social conditions in the host country by, for example, transferring “cleaner” technologies and leading to more socially responsible corporate policies. … while also taking stock of the possible costs and proposing ways to reduce them. The report does not focus solely on the positive effects of FDI for development. It also addresses concerns about potential drawbacks for host economies, economic as well as non-economic. While many of the drawbacks, referred to as “costs” in this report, arguably reflect shortcomings in Foreign Direct Investment for Development: Overview 6 © OECD 2002 the domestic policies of host countries, important challenges may nevertheless arise when these shortcomings cannot easily be addressed. Potential drawbacks include a deterioration of the balance of payments as profits are repatriated (albeit often offset by incoming FDI), a lack of positive linkages with local communities, the potentially harmful environmental impact of FDI, especially in the extractive and heavy industries, social disruptions of accelerated commercialisation in less developed countries, and the effects on competition in national markets. Moreover, some host country authorities perceive an increasing dependence on internationally operating enterprises as representing a loss of political sovereignty. Even some expected benefits may prove elusive if, for example, the host economy, in its current state of economic development, is not able to take advantage of the technologies or know-how transferred through FDI. I. Trends FDI hit new records in 1999 and 2000… The magnitude of FDI flows continued to set records through the last decade, before falling back in 2001. In 2000, world total inflows reached 1.3 trillion US dollars Table 1. OECD FDI outflows by region \* Excluding OECD countries. Source: OECD International Direct Investment Statistics. In USD million Percentage of total 1985 1990 1995 2000 1985 1990 1995 2000 WORLD 61 277 235 836 335 194 1 068 786 100 100 100 100 of which: OECD countries 42 055 189 166 263 716 904 349 68.6 80.2 79.7 84.6 Non-OECD countries 19 222 46 670 71 437 137 747 31.4 19.8 21.3 12.9 of which: Africa 404 195 3 100 7 267 0.7 0.1 0.9 0.7 Asia\* 2 171 12 650 25 106 29 494 3.5 5.4 7.5 2.8 Europe\* 8 408 3 570 14 026 0.0 0.2 1.1 1.3 Latin America and Caribbean\* 9 101 18 948 23 632 68 374 14.9 8.0 7.1 6.4 Near and Middle East 212 1 056 1 936 1 571 0.3 0.4 0.6 0.1 Unallocated 7 325 13 413 14 093 17 015 12.0 5.7 4.2 1.6 Summary and Conclusions 7 © OECD 2002 (USD) – or four times the levels of five years earlier. More than 80% of the recipients of these inflows, and more than 90% of the initiators of the outflows, were located in “developed countries”. A breakdown of the outflows from OECD countries is provided in Table 1. … and although developed countries were the main recipients, developing countries also received economically significant sums… The limited share of FDI that goes to developing countries is spread very unevenly, with two-thirds of total FDI flows from OECD members to non-OECD countries going to Asia and Latin America. Within regions there are some strong concentrations on a few countries, such as China and Singapore in the case of Asia. Even so, FDI inflows represent significant sums for many developing countries, several of them recording levels of FDI, relative to the size of the domestic economy, that overshadow the largest OECD economies (Figure 1). Moreover, the flow of FDI to developing countries worldwide currently overshadows official development assistance by a wide margin, further highlighting the need to address the use of FDI as a tool for economic development. The African continent’s apparent problem with attracting FDI is briefly discussed in Box 1. … mainly in the form of greenfield investment. In recent years, an increasingly large share of FDI flows has been through mergers and acquisitions (M&As). This partly reflects a flurry of transatlantic corporate takeovers, and partly the large-scale privatisation programmes that Figure 1. Inward FDI stock, 2000 (share of GDP) Source: UNCTAD. 0 5 10 15 20 25 30 35 Per cent Developing countries Developed countries World Africa Latin America Asia North America Western Europe 0 5 10 15 20 25 30 35 Per cent Developing countries Developed countries World Africa Latin America Asia North America Western Europe 0 5 10 15 20 25 30 35 Per cent Developing countries Developed countries World Africa Latin America Asia North America Western Europe Foreign Direct Investment for Development: Overview 8 © OECD 2002 Box 1. Inward FDI in Africa The entire African continent (except South Africa) received FDI inflows worth an estimated US$ 8.2 billion in 2000. For comparison, this equals the amount of inward FDI attracted by Finland this year, and it represented a mere 0.6 per cent of total world FDI flows. Several recent studies have discussed the possible reasons for this seemingly spectacular failure of African countries at attracting foreign investors. The main factors motivating FDI into Africa in recent decades appear to have been the availability of natural resources in the host countries (e.g. investment in the oil industries of Nigeria and Angola) and, to a lesser extent, the size of the domestic economy. The reasons for the lacklustre FDI in most other African countries are most likely the same factors that have contributed to a generally low rate of private investment to GDP across the continent. Studies have attributed this to the fact that, while gross returns on investment can be very high in Africa, the effect is more than counterbalanced by high taxes and a significant risk of capital losses. As for the risk factors, analysts now agree that three of them may be particularly pertinent: macroeconomic instability; loss of assets due to nonenforceability of contracts; and physical destruction caused by armed conflicts.1 The second of these may be particularly discouraging to investors domiciled abroad, since they are generally excluded from the informal networks of agreements and enforcement that develop in the absence of a transparent judicial system. Several other factors holding back FDI have been proposed in recent studies, notably the perceived sustainability of national economic policies, poor quality of public services and closed trade regimes.2 Even where the obstacles to FDI do not seem insurmountable, investors may have powerful incentives to adopt a waitand-see attitude. FDI (and especially greenfield investment) contains an important irreversible element, so where investors’ risk perception is heightened the inducement would have to be massive to make them undertake FDI as opposed to deferring their decision.3 This problem is compounded where a deficit of democracy, or of other kinds of political legitimacy, makes the system of government prone to sudden changes. Finally, a lack of effective regional trade integration efforts has been singled out as a factor.4 Due to this, national markets remained small and grew at a modest pace (and, in some cases, they even contracted). A few countries have, however, been able to attract FDI, apparently by virtue of the quality of their domestic business climates. It has been argued that countries such as Mozambique, Namibia, Senegal and Mali in the late 1990s became perceived as having a relatively benign investment environment.5 This seems to have resulted primarily from government policies toward trade liberalisation; the launch of privatisation programmes; modernising investment codes and adopting international FDI agreements; developing a few priority projects of wider economic impact; and, finally, engaging in high-profile publicity efforts, aimed at informing investors of these improvements. Summary and Conclusions 9 © OECD 2002 were implemented throughout much of the world in the 1990s. In developing countries, however, greenfield investment has remained the predominant mode of entry for direct investors, followed by foreign companies’ participation in privatisations. II. FDI and growth Beyond the initial macroeconomic stimulus from the actual investment, FDI influences growth by raising total factor productivity and, more generally, the efficiency of resource use in the recipient economy. This works through three channels: the linkages between FDI and foreign trade flows, the spillovers and other externalities vis-à-vis the host country business sector, and the direct impact on structural factors in the host economy. The existence of an “additional” growth impact of FDI is widely accepted. The magnitude is less clear… Most **empirical studies conclude that FDI contributes to both factor productivity and income growth in host countries,** beyond what domestic investment normally would trigger. It is more difficult, however, to assess the magnitude of this impact, not least because large FDI inflows to developing countries often concur with unusually high growth rates triggered by unrelated factors. Whether, as sometimes asserted, the positive effects of FDI are mitigated by a partial “crowding out” of domestic investment is far from clear. Some researchers have found evidence of crowding Box 1. Inward FDI in Africa (cont.) 1. E. Hernández-Catá (2000), “Raising Growth and Investment in Sub-Saharan Africa: What Can Be Done?”, IMF Policy Discussion Paper, PDP/00/4. 2. See, for example, D. Dollar and W. Easterly (1998), “The Search for the Key: Aid, Investment and Policies in Africa”, World Bank Working Paper. 3. L. Serván (1996), “Irreversibility, Uncertainty and Private Investment: Analytical Issues and Some Lessons for Africa”, World Bank Working Paper. 4. N. Odenthal (2001), “FDI in Sub-Saharan Africa”, Technical Paper No. 173, OECD Development Centre. 5. J. Morisset (2000), “Foreign Direct Investment in Africa: Policies also Matter”, World Bank Working Paper. Foreign Direct Investment for Development: Overview 10 © OECD 2002 out, while others conclude that FDI may actually serve to increase domestic investment. Regardless, even where crowding out does take place, the net effect generally remains beneficial, not least as the replacement tends to result in the release of scarce domestic funds for other investment purposes. … particularly in the least developed countries, where low educational and technological standards and weak financial markets can hold back the benefits. In the least developed economies, FDI seems to have a somewhat smaller effect on growth, which has been attributed to the presence of “threshold externalities”. Apparently, developing countries need to have reached a certain level of development in education, technology, infrastructure and health before being able to benefit from a foreign presence in their markets. Imperfect and underdeveloped financial markets may also prevent a country from reaping the full benefits of FDI. Weak financial intermediation hits domestic enterprises much harder than it does multinational enterprises (MNEs). In some cases it may lead to a scarcity of financial resources that precludes them from seizing the business opportunities arising from the foreign presence. Foreign investors’ participation in physical infrastructure and in the financial sectors (subject to adequate regulatory frameworks) can help on these two grounds. a) Trade and investment While the empirical evidence of FDI’s effects on host-country foreign trade differs significantly across countries and economic sectors, a consensus is nevertheless emerging that the FDI-trade linkage must be seen in a broader context than the direct impact of investment on imports and exports. The main trade-related benefit of FDI for developing countries lies in its long-term contribution to integrating the host economy more closely into the world economy in a process likely to include higher imports as well as exports. In other words, trade and investment are increasingly recognised as mutually reinforcing channels for cross-border activities. However, host-country authorities need to consider the short and medium-term impacts of FDI on foreign trade as well, particularly when faced with current-account pressures, and they sometimes have to face the question of whether some of the foreign-owned enterprises’ transactions with their mother companies could diminish foreign reserves. Summary and Conclusions 11 © OECD 2002 FDI generally occurs in tandem with greater international trade integration, which may reflect increasing vertical integration as well as the establishment of transnational distribution networks. As countries develop and approach industrialisednation status, inward FDI contributes to their further integration into the global economy by engendering and boosting foreign trade flows (the link between openness to trade and investment is illustrated by Figure 2). Apparently, several factors are at play. They include the development and strengthening of international networks of related enterprises and an increasing importance of foreign subsidiaries in MNEs’ strategies for distribution, sales and marketing. In both cases, this leads to an important policy conclusion, namely that a developing country’s ability to attract FDI is influenced significantly by the entrant’s subsequent access to engage in importing and exporting activities. This, in turn, implies that would-be host countries should consider a policy of openness to international trade as central in their strategies to benefit from FDI, and that, by restricting imports from developing countries, home countries effectively curtail these countries’ ability to attract foreign direct investment. Host countries could consider a strategy of attracting FDI through raising the size of the Figure 2. The openness to FDI and trade Source: OECD International Direct Investment Statistics and OECD Economic Outlook. 9 0 0 8 7 6 5 4 3 2 1 9 0 8 7 6 5 4 3 2 1 10 20 30 40 50 60 70 Average of export and import relative to GDP (1995-2000) Sweden Netherlands BLEU UK Switzerland Canada Korea Germany Spain France US Australia Japan Italy Average of inward and outward FDI relative to GDP (1995-2000) Average of inward and outward FDI relative to GDP (1995-2000) 9 0 0 8 7 6 5 4 3 2 1 9 0 8 7 6 5 4 3 2 1 10 20 30 40 50 60 70 Average of export and import relative to GDP (1995-2000) Sweden Netherlands BLEU UK Switzerland Canada Korea Germany Spain France US Australia Japan Italy Average of inward and outward FDI relative to GDP (1995-2000) Average of inward and outward FDI relative to GDP (1995-2000) 9 0 0 8 7 6 5 4 3 2 1 9 0 8 7 6 5 4 3 2 1 10 20 30 40 50 60 70 Average of export and import relative to GDP (1995-2000) Sweden Netherlands BLEU UK Switzerland Canada Korea Germany Spain France US Australia Japan Italy Average of inward and outward FDI relative to GDP (1995-2000) Average of inward and outward FDI relative to GDP (1995-2000) Foreign Direct Investment for Development: Overview 12 © OECD 2002 relevant market by pursuing policies of regional trade liberalisation and integration. The ability of FDI to contribute to developing export capabilities depends on context. Exportprocessing zones may be a tool for closer integration into world trade, but they come at a cost. Host countries’ ability to use FDI as a means to increase exports in the short and medium term depends on the context. The clearest examples of FDI boosting exports are found where inward investment helps host countries that had been financially constrained make use either of their resource endowment (e.g. foreign investment in mineral extraction) or their geographical location (e.g. investment in some transition economies). Targeted measures to harness the benefits of FDI for integrating host economies more closely into international trade flows, notably by establishing export-processing zones (EPZs), have attracted increasing attention. In many cases they have contributed to a raising of imports as well as exports of developing countries. However, it is not clear whether the benefits to the domestic economy justify drawbacks such as the cost to the public purse of maintaining EPZs or the risks of creating an uneven playing field between domestic and foreign enterprises and of triggering international bidding wars. FDI has generally not been an appropriate tool for import-substitution strategies. Recent studies do not support the presumption that lesser developed countries may use inward FDI as a substitute for imports. Rather, FDI tends to lead to an upsurge in imports, which is often gradually reduced as local companies acquire the skills to serve as subcontractors to the entrant MNEs. b) Technology transfers Economic literature identifies technology transfers as perhaps the most important channel through which foreign corporate presence may produce positive externalities in the host developing economy. MNEs are the developed world’s most important source of corporate research and development (R&D) activity, and they generally possess a higher level of technology than is available in developing countries, so they have the potential to generate considerable technological spillovers. However, whether and to what extent MNEs facilitate such spillovers varies according to context and sectors. Summary and Conclusions 13 © OECD 2002 Technology transfers are an important aspect of MNE presence, particularly through vertical linkages… Technology transfer and diffusion work via four interrelated channels: vertical linkages with suppliers or purchasers in the host countries; horizontal linkages with competing or complementary companies in the same industry; migration of skilled labour; and the internationalisation of R&D. The evidence of positive spillovers is strongest and most consistent in the case of vertical linkages, in particular, the “backward” linkages with local suppliers in developing countries. MNEs generally are found to provide technical assistance, training and other information to raise the quality of the suppliers’ products. Many MNEs assist local suppliers in purchasing raw materials and intermediate goods and in modernising or upgrading production facilities. … whereas the importance of horizontal linkages is still the subject of debate. Reliable empirical evidence on horizontal spillovers is hard to obtain, because the entry of an MNE into a lessdeveloped economy affects the local market structure in ways for which researchers cannot easily control. The relatively few studies on the horizontal dimension of spillovers have found mixed results. One reason for this could be efforts by foreign enterprises to avoid a spillover of knowhow to their immediate competition. Some recent evidence appears to indicate that horizontal spillovers are more important between enterprises operating in unrelated sectors. The effect on growth depends on the “relevance” of the foreign technologies, and on the basic technological level of the host country. A proviso relates to the relevance of the technologies transferred. For technology transfer to generate externalities, the technologies need to be relevant to the host-country business sector beyond the company that receives them first. The technological level of the host country’s business sector is of great importance. Evidence suggests that for FDI to have a more positive impact than domestic investment on productivity, the “technology gap” between domestic enterprises and foreign investors must be relatively limited. Where important differences prevail, or where the absolute technological level in the host country is low, local enterprises are unlikely to be able to absorb foreign technologies transferred via MNEs. Foreign Direct Investment for Development: Overview 14 © OECD 2002 c) Human capital enhancement The major impact of FDI on human capital in developing countries appears to be indirect, occurring not principally through the efforts of MNEs, but rather from government policies seeking to attract FDI via enhanced human capital. Once individuals are employed by MNE subsidiaries, their human capital may be enhanced further through training and on-the-job learning. Those subsidiaries may also have a positive influence on human capital enhancement in other enterprises with which they develop links, including suppliers. Such enhancement can have further effects as that labour moves to other firms and as some employees become entrepreneurs. Thus, the issue of human capital development is intimately related with other, broader development issues. Human capital is an essential part of a country’s enabling environment. In particular, a certain minimum level of education should be reached… Investment in general education and other generic human capital is of the utmost importance in creating an enabling environment for FDI. Achieving a certain minimum level of educational attainment is paramount to a country’s ability both to attract FDI and to maximise the human capital spillovers from foreign enterprise presence. The minimum level differs between industries and according to other characteristics of the host country’s enabling environment; education in itself is unlikely to make a country attractive to foreign direct investors. However, where a significant “knowledge gap” is allowed to persist between foreign entry and the rest of the host economy, no significant spillovers are likely. … and basic labour market standards should be respected. Among the other important elements of the enabling environment are the host country’s labour market standards. By taking steps against discrimination and abuse, the authorities bolster employees’ opportunities to upgrade their human capital, and strengthen their incentives for doing so. Also, a labour market where participants have access to a certain degree of security and social acceptance lends itself more readily to the flexibility that is key to the success of economic strategies based on human capital. It provides an environment in which MNEs based in OECD countries can more easily operate, applying their home country standards and contributing to human capital development. One strategy to further this goal is a wider Summary and Conclusions 15 © OECD 2002 adherence to the OECD Declaration on International Investment and Multinational Enterprises, which would further the acceptance of the principles laid down in the Guidelines for Multinational Enterprises. Generic education in the host economy remains essential. Human capital enhancement via foreign subsidiaries may provide a useful supplement… While the benefits of MNE presence for human capital enhancement are commonly accepted, it is equally clear that their magnitude is significantly smaller than that of general (public) education. The beneficial effects of training provided by FDI can supplement, but not replace, a generic increase in skill levels. The presence of MNEs may, however, provide a useful demonstration effect, as the demand for skilled labour by these enterprises provides host-country authorities with an early indication of what skills are in demand. The challenge for the authorities is to meet this demand in a timely manner while providing education that is of such general usefulness that it does not implicitly favour specific enterprises. … especially as MNEs in most cases provide more training than local enterprises. Empirical and anecdotal evidence indicates that, while considerable national and sectoral discrepancies persist, MNEs tend to provide more training and other upgrading of human capital than do domestic enterprises. However, evidence that the human capital thus created spills over to the rest of the host economy is much weaker. Policies to enhance labour-market flexibility and encourage entrepreneurship, among other strategies, could help buttress such spillovers. Technological and educational achievements are mutually reinforcing, which would justify a co-ordinated approach by policy makers. Human capital levels and spillovers are closely interrelated with technology transfers. In particular, technologically advanced sectors and host countries are more likely to see human capital spillovers and, conversely, economies with a high human capital component lend themselves more easily to technology spillovers. The implication of this is that efforts to reap the benefits of technology and human capital spillovers could gain effectiveness when policies of technological and educational improvement are undertaken conjointly. d) Competition FDI and the presence of MNEs may exert a significant influence on competition in host-country markets. However, since there is no Foreign Direct Investment for Development: Overview 16 © OECD 2002 commonly accepted way of measuring the degree of competition in a given market, few firm conclusions may be drawn from empirical evidence. The presence of foreign enterprises may greatly assist economic development by spurring domestic competition and thereby leading eventually to higher productivity, lower prices and more efficient resource allocation. Conversely, the entry of MNEs also tends to raise the levels of concentration in host-country markets, which can hurt competition. This risk is exacerbated by any of several factors: if the host country constitutes a separate geographic market, the barriers to entry are high, the host country is small, the entrant has an important international market position, or the host-country competition law framework is weak or weakly enforced. Market concentration has increased in response to M&As and strategies for corporate co-operation… Market concentration worldwide has increased significantly since the early 1990s due to a wave of M&As that has reshaped the global corporate landscape. At the same time, a surge in the number of strategic alliances has changed the way in which formally independent corporate entities interact. Alliances are generally thought to limit direct competition while generating efficiency gains, but evidence of this is not firmly established. There has also been a wave of privatisations that has attracted considerable foreign direct investment (mainly in developing and emerging countries), and this, too, could have important effects on competition. … not least among developing countries… Empirical studies suggest that the effect of FDI on host-country concentration is, if anything, stronger in developing countries than in more mature economies. This could raise the concern that MNE entry into less-developed countries can be anti-competitive. Moreover, while ample evidence shows MNE entry raising productivity levels among host-country incumbents in developed countries, the evidence from developing countries is weaker. Where such spillovers are found, the magnitude and dispersion of their effects are linked positively to prevailing levels of competition. … but in most cases not to levels that give rise to immediate concerns about competition. However, the direct impact of rising concentration on competition, if any, appears to vary by sector and host country. There are relatively few industries where global concentration has reached levels causing real concern for competition, especially if relevant markets are global in Summary and Conclusions 17 © OECD 2002 scope. In addition, high levels of concentration in properly defined markets may not result in reduced competition if barriers to entry and exit are low or buyers are in a good position to protect themselves from higher prices. The strategies for avoiding anticompetitive practices include openness to foreign trade and the tightening of domestic competition rules and practices. While it is economically desirable that strongly performing foreign competitors be allowed to replace less productive domestic enterprises, policies to safeguard a healthy degree of competition must be in place. Arguably the best way of achieving this is by expanding the “relevant market” by increasing the host economy’s openness to international trade. In addition, efficiency-enhancing national competition laws and enforcement agencies are advisable to minimise the anti-competitive effects of weaker firms exiting the market. When mergers are being reviewed and when possible abuses of dominance cases are being assessed, the accent should be on protecting competition rather than competitors. Modern competition policy focuses on efficiency and protecting consumers; any other approach may lead to competition policy being reduced to an industrial policy that may fail to deliver longterm benefits to consumers. e) Enterprise development FDI has the potential significantly to spur enterprise development in host countries. The direct impact on the targeted enterprise includes the achievement of synergies within the acquiring MNE, efforts to raise efficiency and reduce costs in the targeted enterprise, and the development of new activities. In addition, efficiency gains may occur in unrelated enterprises through demonstration effects and other spillovers akin to those that lead to technology and human capital spillovers. Available evidence points to a significant improvement in economic efficiency in enterprises acquired by MNEs, albeit to degrees that vary by country and sector. The strongest evidence of improvement is found in industries with economies of scale. Here, the submersion of an individual enterprise into a larger corporate entity generally gives rise to important efficiency gains. Foreign Direct Investment for Development: Overview 18 © OECD 2002 Takeovers generally lead to beneficial upgrades of governance and management, whereby a balance between foreign and domestic competences must be struck. Foreign-orchestrated takeovers lead to changes in management and corporate governance. MNEs generally impose their own company policies, internal reporting systems and principles of information disclosure on acquired enterprises (although cases of learning from subsidiaries have also been seen), and a number of foreign managers normally come with the takeover. Insofar as foreign corporate practices are superior to the ones prevailing in the host economy, this may boost corporate efficiency, empirical studies have found. However, to the extent that countryspecific competences are an asset for managers in subsidiaries, MNEs need to strive toward an optimal mix of local and foreign management. The experiences with foreign participation in privatisations have been positive, although measures to boost efficiencies have sometimes been politically controversial. An important special case relates to foreign participation in the privatisation of government-owned enterprises. Experiences, many of them from the transition economies in East and Central Europe, have been largely positive; participation by MNEs in privatisations has consistently improved the efficiency of the acquired enterprises. Some political controversies have, however, occurred because the efficiency gains were often associated with sizeable nearterm job losses. Moreover, the value of FDI in connection with privatisation in transition economies could partly reflect the fact that few domestic strategic investors have access to sufficient finance. In those few cases where domestic private investors were brought into previously publicly owned enterprises, important efficiency gains resulted. The privatisation of utilities in developing countries has sometimes given rise to problems with safeguarding competition. The privatisation of utilities is often particularly sensitive, as these enterprises often enjoy monopolistic market power, at least within segments of the local economy. The first-best privatisation strategy is arguably to link privatisation with an opening of markets to greater competition. But where the privatised entity remains largely unreconstructed prior to privatisation, local authorities often resort to attracting foreign investors by promising them protection from competition for a designated period. In this case there is a heightened need for strong, independent domestic regulatory oversight. Summary and Conclusions 19 © OECD 2002 Authorities have incentives to use FDI as a tool in their strategies toward enterprise development and restructuring. Overall, the picture of the effects of FDI on enterprise restructuring that we can derive from recent experience may be too positive, because investors will have picked their targets among enterprises with a potential for achieving efficiency gains. However, from a policy perspective, this makes little difference, as long as foreign investors differ from domestic investors in their ability or willingness to improve efficiency or realise new business opportunities. Authorities aiming to improve the economic efficiency of their domestic business sectors have incentives to encourage FDI as a vehicle for enterprise restructuring. III. FDI and environmental and social concerns FDI has the potential to bring social and environmental benefits to host economies through the dissemination of good practices and technologies within MNEs, and through their subsequent spillovers to domestic enterprises. There is a risk, however, that foreign-owned enterprises could use FDI to “export” production no longer approved in their home countries. In this case, and especially where host-country authorities are keen to attract FDI, there would be a risk of a lowering or a freezing of regulatory standards. In fact, there is little empirical evidence to support the risk scenario. While responsibility rests largely with the hostcountry authorities, FDI has a strong potential to benefit the environment… The direct environmental impact of FDI is generally positive, at least where host-country environmental policies are adequate. There are, however, examples to the contrary, especially in particular industries and sectors. Most importantly, to reap the full environmental benefits of inward FDI, adequate local capacities are needed, as regards environmental practices and the broader technological capabilities of host-country enterprises. … since MNEs generally possess “cleaner” and more modern technologies. The technologies that are transferred to developing countries in connection with foreign direct investment tend to be more modern, and environmentally “cleaner”, than what is locally available. Moreover, positive externalities have been observed where local imitation, employment turnover and supply-chain requirements led to more general environmental improvements in the host economy. There have been some instances, however, of MNEs moving equipment deemed environmentally unsuitable in the home country to their affiliates in developing countries. Foreign Direct Investment for Development: Overview 20 © OECD 2002 The use of such inferior technology will usually not be in the better interest of a company; this demonstrates the sort of environmental risk associated with FDI. There is little evidence of MNEs inducing host countries to loosen their environmental standards. Empirical studies have found little support for the assertion that policy makers’ efforts to attract FDI may lead to “pollution havens” or a “race to the bottom”. The possibility of a “regulatory chill”, however, is harder to refute for the lack of a counterfactual scenario. Apparently, the cost of environmental compliance is so limited (and the cost to a firm’s reputation of being seen to try to avoid them so great) that most MNEs allocate production to developing countries regardless of these countries’ environmental regulations. The evidence supporting this argument seems to depend on the wealth and the degree of environmental concern in the MNEs’ other countries of operation. **FDI** may help address social concerns by **act(s)**ing **as a tool to alleviate poverty… Empirical evidence** of the social consequences of FDI is far from abundant. Overall, however, it **supports the notion that foreign investment** may help **reduce poverty and improve social conditions** (see also Figure 3). The general Figure 3. Poverty and inward FDI stock (in 60 developing countries) Source: World Development Indications. 80 0 0 70 60 50 40 30 20 10 80 0 70 60 50 40 30 20 10 5 15 25 35 45 10 20 30 40 50 Share of population living below 1 USD per day Share of population living below 1 USD per day FDI stock as percentage of GDP, 1995 80 0 0 70 60 50 40 30 20 10 80 0 70 60 50 40 30 20 10 5 15 25 35 45 10 20 30 40 50 Share of population living below 1 USD per day Share of population living below 1 USD per day FDI stock as percentage of GDP, 1995 80 0 0 70 60 50 40 30 20 10 80 0 70 60 50 40 30 20 10 5 15 25 35 45 10 20 30 40 50 Share of population living below 1 USD per day Share of population living below 1 USD per day FDI stock as percentage of GDP, 1995 Summary and Conclusions 21 © OECD 200**2 effects of FDI on growth are essential.** Studies have found that **higher incomes in developing countries** generally **benefit the poorest segments of the population** proportionately. **The beneficial effects of FDI on poverty reduction are** potentially **strong**er when FDI is employed as a tool to develop labour-intensive industries – and where it is anchored in the adherence of MNEs to national labour law and internationally accepted labour standards. … especially as most MNEs take an interest in furthering social cohesion and labour standards. There are, however, some examples, in specific countries and sectors, of the opposite effect. There is little evidence that foreign corporate presence in developing countries leads to a general deterioration of basic social values, such as core labour standards. On the contrary, **empirical studies have found a positive relationship between FDI and workers’ rights.** Low labour standards may, in some cases, even act as a deterrent to FDI, due to investors’ concerns about their reputation elsewhere in the world and their fears of social unrest in the host country. Problems may, however, arise in specific contexts. For example, the non-trivial role that EPZs play in many developing countries could, some have argued, raise concerns regarding the respect for basic social values. IV. Conclusion: benefits and costs The main policy conclusion that can be drawn from the study is that the economic benefits of FDI are real, but they do not accrue automatically. To reap the maximum benefits from foreign corporate presence a healthy enabling environment for business is paramount, which encourages domestic as well as foreign investment, provides incentives for innovation and improvements of skills and contributes to a competitive corporate climate. The magnitude of the benefits from FDI depends on the efforts of host countries to put in place the appropriate frameworks… The net benefits from FDI do not accrue automatically, and their magnitude differs according to host country and context. The factors that hold back the full benefits of FDI in some developing countries include the level of general education and health, the technological level of host-country enterprises, insufficient openness to trade, weak competition and inadequate regulatory frameworks. Conversely, a level of technological, educational and infrastructure achievement in a developing country does, other things being equal, equip it better to benefit from a foreign presence in its markets. Foreign Direct Investment for Development: Overview 22 © OECD 2002 … but even less-well performing countries may benefit, inter alia by using FD as a supplement to scarce financial resources. Yet even countries at levels of economic development that do not lend themselves to positive externalities from foreign presence may benefit from inward FDI through the limited access to international funding. By easing financial restraint, **FDI enables host countries to achieve the higher growth rates** that generally emanate from a faster pace of gross fixed capital formation. The eventual economic effect of FDI on economies with little other recourse to finance depends crucially on the policies pursued by host-country authorities. The sectoral composition of an economy can also make a difference. While the service sectors of many developing countries may be underdeveloped and hence unable to attract large inflows of FDI, extractive industries in countries with abundant natural resources can be developed beneficially with the aid of foreign investors. FDI-induced economic change may produce some adverse distributional and employment effects in the host country. Both categories of problems should be temporary, but they can be prolonged and aggravated in the absence of appropriate policy responses. In addition to the potential drawbacks of inward FDI mentioned earlier, some micro-oriented problems could arise. For instance, while the overall impact of FDI on enterprise development and productivity is almost always positive, it generally also brings distributional changes and a need for industrial restructuring in the host economy. Changes give rise to adjustment costs and are resisted by social groups that do not expect to be among the beneficiaries. Structural rigidities in the host economy exacerbate such costs, not least where labour markets are too slow to provide new opportunities for individuals touched by restructuring. Overall, the costs are best mitigated when appropriate practices are pursued toward flexibility, coupled with macroeconomic stability and the implementation of adequate legal and regulatory frameworks. While the responsibility for this lies largely with host-country authorities, home countries, MNEs and international forums also have important roles to play. Summary and Conclusions 23 © OECD 2002 FDI tends to act as a catalyst for underlying strengths and weaknesses in the host economy, bringing to the fore both its advantages and its problems. In cases where domestic legal, competition and environmental frameworks are weak or weakly enforced, the presence of financially strong foreign enterprises may not be sufficient to assist economic development – although there are examples (notably in finance) where the entry of MNEs based in OECD member countries has contributed to an upgrading of industry standards. Where economic and legal structures create a healthy environment for business, the entry of strong foreign corporate contenders tends to stimulate the host-country business sector, whether through competition, vertical linkages or demonstration effects. FDI can be said to act as a catalyst for underlying strengths and weaknesses in the host countries’ corporate environments, possibly exacerbating the problems in “nongovernance zones”, while eliciting the advantages in countries with a more benign business climate and better governance. This reinforces the point made above about the need for host (and home) countries to work to improve regulatory and legal frameworks and other elements that help enable the business sector. Countries generally should not base their development strategies on the benefits of FDI. Inward FDI should be seen as a valuable supplement to local efforts rather than as a main source of growth. Finally, FDI – like official development aid – cannot be the main source for solving poor countries’ development problems. With average inward FDI stocks representing around 15 % of gross domestic capital formation in developing countries, foreign investment acts as a valuable supplement to domestically provided fixed capital rather than a primary source of finance. Countries incapable of raising funds for investment locally are unlikely beneficiaries of FDI. Likewise, while FDI may contribute significantly to human capital formation, the transfer of state-of-the-art technologies, enterprise restructuring and increased competition, it is the host country authorities that must undertake basic efforts to raise education levels, invest in infrastructure and improve the health of domestic business sectors. Domestic subsidiaries of MNEs have the potential to supplement such efforts, and foreign or international agencies may assist, for example through measures to build capacity. But the benign effects of FDI remain contingent upon timely and appropriate policy action by the relevant national authorities. Foreign Direct Investment for Development: Overview 24 © OECD 2002 V. Policy recommendations Policies matter for reaping the full benefits of FDI. Foreign investors are influenced by three broad groups of factors: the expected profitability of individual projects; the ease with which subsidiaries’ operations in a given country can be integrated in the investor’s global strategies; and the overall quality of the host country’s enabling environment. Some important parameters that may limit expected profitability (e.g. local market size and geographical location) are largely outside the influence of policy makers. Moreover, in many cases the profitability of individual investment projects in developing countries may be at least as high as elsewhere. Conversely, developed economies retain clear advantages in the second and third factors mentioned above, which should induce less advanced economies to undertake policy action to catch up. Important factors such as the host country’s infrastructure, its integration into the world trade systems and the availability of relevant national competences are all priority areas. a) The challenges facing host country authorities Sound FDI policies and policies toward domestic enterprise development are largely equivalent. Sound host-country policies toward attracting FDI and benefiting from foreign corporate presence are largely equivalent to policies for mobilising domestic resources for productive investment. As stated in the Monterrey Declaration, domestic resources in most cases provide the foundation for self-sustaining development. An enabling domestic business environment is vital not only to mobilise domestic resources but to attract and effectively use international investment. They fall into three categories, namely… As the experience of OECD members and other countries has shown, the measures available to host-country authorities fall into three categories: improvements of the general macroeconomic and institutional frameworks; creation of a regulatory environment that is conducive to inward FDI; and upgrading of infrastructure, technology and human competences to the level where the full potential benefits of foreign corporate presence can be realised. … macroeconomic stability and quality of financial intermediation, The first of these points establishes the fact that every aspect of host countries’ economic and governance practices affects the investment climate. The overall goal for policy makers must, therefore, be to strive for the greatest Summary and Conclusions 25 © OECD 2002 possible macroeconomic stability and institutional predictability. More concretely (and while macroeconomic and financial enabling environments have not been the focus of the main report), the following recommendations are widely supported: • Pursue sound macroeconomic policies geared to sustained high economic growth and employment, price stability and sustainable external accounts. • Promote medium-term fiscal discipline, efficient and socially just tax systems, and prudent public-sector debt management. • Strengthen domestic financial systems, in order to make domestic financial resources available to supplement and complement foreign investment. A priority area is the development of capital markets and financial instruments to promote savings and provide long-term credit efficiently. This will help alleviate funding constraints in general and allow local enterprise development to benefit those business opportunities arising from foreign corporate activities. This process will entail a progressive implementation of multilaterally agreed financial standards. … an improved enabling environment, The broader enabling environment for FDI is generally identical with best practices for creating a dynamic and competitive domestic business environment. The principles of transparency (both as regards host country regulatory action and business sector practices) and nondiscrimination are instrumental in attracting foreign enterprises and in benefiting from their presence in the domestic economy. FDI is unlikely unless investors have a reasonable understanding of the environment in which they will be operating. Moreover, a lack of transparency may lead to illicit and other unethical practices, which generally weaken the host country’s business environment (Box 2). In this context, host-country authorities should undertake the following measures: • Strengthen their efforts to consolidate the rule of law and good governance, including by stepping up efforts against corruption and enhancing policy and regulatory frameworks (e.g. as regards competition, Foreign Direct Investment for Development: Overview 26 © OECD 2002 financial reporting and intellectual property protection) to foster a dynamic and well-functioning business sector. Such policies will benefit the climate for FDI through their effect on transparency. By bringing Box 2. Host-country transparency Among the elements of the enabling environment that can be influenced by policies, transparency is arguably the most important. Case studies suggest that companies may, for example, be willing to invest in countries with legal and regulatory frameworks that would not otherwise be considered as “investor friendly”, provided they are able to obtain reasonable clarity about the environment in which they will be operating. Conversely, there appear to be certain threshold levels for transparency beneath which business conditions become so opaque that virtually no investor is willing to enter, regardless of the inducements. Another important factor related to transparency is the degree of social cohesion and stability of the host country. The absence of cohesion and stability greatly adds to investors’ risk perception, and may spark concerns among foreign enterprises about possible damage to their reputations. The need for transparency relates both to the actions taken by authorities and to the broader business environment of the host country. Given the relative irreversibility of FDI, uncertainties about legislative action and rules enforcement act as major impediments, giving rise to risk premiums and raising fears of discriminatory treatment. A non-transparent host-country business environment raises information costs, diverts corporate energies toward rent-seeking activities, and may give rise to outright crime such as corruption. While this weighs on the hostcountry business sector, it arguably acts as an even greater discouragement to outsiders, who are not privy to locally available information. The costs to host-country authorities and enterprises of achieving a high level of transparency, while nontrivial, must be contrasted with the considerable costs to both domestic and foreign investment of maintaining a non-transparent national business environment. Home-country institutions and international organisations may assist host-country authorities through measures toward capacity building. FDI often contributes to creating a more transparent environment. There are cases of foreign corporate presences encouraging more open government practices, raising corporate transparency and assisting in the fight against corruption. More generally, by inducing MNEs to observe commonly agreed standards such as the OECD Convention on Combating Bribery of Foreign Public Officials, the Declaration on International Investment, and the Guidelines for Multinational Enterprises, home-country authorities can contribute to raising standards for corporate social responsibility in host countries. Summary and Conclusions 27 © OECD 2002 a larger share of the informal economy into the open, they will also have important secondary effects on countries’ ability to attract investment. • Work toward increased openness to foreign trade, so the domestic enterprise sector can participate fully in the global economy. This approach should be undertaken jointly with efforts to increase businesssector competition. A combined approach would allow a greater domestic and international openness to business to go hand-in-hand with safeguards against the negative effects of a rise in concentration. Moreover, the successful elimination of global and regional trade barriers makes participating countries more attractive for FDI, owing to the concomitant expansion of the “relevant” market. • Enshrine the principle of non-discrimination in national legislation and implement procedures to enforce it through all levels of government and public administration. Given the importance of competition for resource allocation and sustained economic growth, it is essential that foreign entrants should be able compete without government prejudice, and that incumbent enterprises are not unduly disadvantaged vis-à-vis foreign-owned ones. … and an upgrading of the relevant infrastructure. To reap the maximum benefits from corporate presence in a national economy, domestic competences, technologies and infrastructure need to be sufficiently well developed to allow nationals to take full advantage of the spillovers that foreign-owned enterprises generate. Hostcountry authorities should therefore – with due regard to the balance between costs and expected benefits, and the state of development of the domestic economy – undertake measures to the following effect: • Put in place, and raise the quality of, relevant physical and technological infrastructure. The presence of such infrastructure is instrumental in attracting MNEs, in allowing national enterprises to integrate the technological spinoffs from foreign-owned enterprises in their production processes, and in facilitating their diffusion through the host economy. Allowing Foreign Direct Investment for Development: Overview 28 © OECD 2002 foreign investment in infrastructure sectors and leveraging such investment by means of ODA may assist in these efforts. • Given the importance of basic, widespread education for development, raise the basic level of education of national workforces. The provision of specialised skills beyond basic education should build on existing competences in the host economy, rather than target the short-term or specific needs of individual foreign-owned enterprises. A healthy workforce population is also needed, which requires basic public health infrastructure (e.g. clean water). • Implement internationally agreed. Efforts to reduce child labour, eliminate workplace discrimination and remove impediments to collective bargaining are important in their own right. They also serve as tools to upgrade the skills and raise the motivation of the labour force and facilitate linkages with MNEs operating on higher standards. Additionally, a comparatively sound environmental and social framework becomes increasingly important for countries seeking to attract international investments operating on high standards. • Consider carefully the effects of imposing performance requirements on foreign investors. Rather than justifying performance requirements as a necessary counterweight to generous FDI incentives, countries may wish to reassess the incentive schemes themselves. Moreover, it should be recognised that such requirements may work against efforts to attract higher quality FDI. b) The challenges facing home-country authorities Home-country authorities may assist the efforts of host countries, for example by… While host-country authorities should bear the brunt of the policy adjustments needed to reap the benefits of FDI for development, the home countries of MNEs – and the developed world more generally – should review the ways in which their national policies affect developing countries. Thus, the benefits of FDI that flow from increased Summary and Conclusions 29 © OECD 2002 international trade integration and diffusion of technology, as mentioned in this report, are influenced significantly by the policies of developed countries. … liberalising their foreign trade regimes, Further trade liberalisation would contribute substantially to worldwide economic development, benefiting both developed and developing countries. In the FDI context, the trade policies of developed (home) countries gain a further dimension, insofar as an important share of FDI is contingent upon subsequent trade between related enterprises. Trade barriers and subsidies aimed at limiting imports into developed countries currently impose costs on developing countries (the magnitude of which arguably exceeds aid flows). The authorities in developed countries could enhance developing countries’ ability to attract foreign investment by working to reduce and eventually eliminate these barriers and subsidies. … encouraging technology transfers to developing countries, Home-country governments need to assess the effects that their technology policies may have on the transfer of technologies to the host economy. Authorities can contribute to a positive outcome by encouraging MNEs to consider the technological needs of host countries. The OECD Guidelines for Multinational Enterprises, which adhering countries are committed to promote, stipulate that enterprises should adopt practices that “permit the transfer and rapid diffusion of technologies and know-how, with due regard to the protection of intellectual property rights”.\* The need for home-country governments to play a role with respect to least developed countries is highlighted by Article 66(2) of the TRIPS Agreement, which states that: “Developed country members shall provide incentives to enterprises and institutions in the territories for the purpose of promoting and encouraging technology transfer to least-developed country members in order to enable them to create a sound and viable technological base”. \* The OECD Declaration and Decisions on International Investment and Multinational Enterprises, Annex I, Section VII.2. Foreign Direct Investment for Development: Overview 30 © OECD 2002 … reviewing their own policies for attracting FDI, While recognising that developed and developing countries generally do not compete for the same investment projects, developed countries should remain attentive to the potential impacts of their measures of subsidising inward direct investment on developing countries’ ability to attract FDI. … and exploiting the synergies between FDI and official development assistance. Another area of action relates to improving the synergies between FDI flows and ODA. While ODA has been, in certain least-developed countries, the only substitute for inadequate FDI, there is evidence that carefully targeted development assistance may assist in leveraging FDI flows and creating a virtuous circle of increasing savings and investment. ODA can be used to buttress or develop institutions and policies in developing countries. This helps create a favourable environment for domestic savings, and for domestic and foreign investment and growth. Some donor and recipient countries are already working along these lines. ODA funds can be used to support those areas considered important to investors in determining investment decisions, notably by helping host countries achieve some of the measures outlined in the previous section. Efforts to improve physical infrastructure, human capital and health in developing countries are all cases in point. Moreover, through its effect on social cohesion, ODA may help make developing countries more attractive locations for FDI. c) The role of multinational enterprises MNEs also have responsibilities… The private sector (notably foreign investors) plays a vital role in generating economic growth, and contributing to achieving sustainable development goals. Therefore, the way private enterprises behave and are governed is important in maximising the benefits of FDI for economic development. OECD countries have launched several initiatives to promote responsible corporate behaviour. Among these are the OECD Guidelines for Multinational Enterprises. Summary and Conclusions 31 © OECD 2002 … as stipulated, for example, by the OECD Guidelines for Multinational Enterprises… Along with provisions for national treatment and other elements of the OECD Declaration on International Investment and Multinational Enterprises, voluntary principles and standards for responsible business conduct are provided by the Guidelines for Multinational Enterprises, recommended by 36 OECD and non-OECD governments to MNEs operating in and from their countries. These recommendations can be read as an approach to the Development Agenda now facing the international community in areas such as technology transfer, human capital management practices, transparency and competition. Moreover, companies should refrain from seeking exemptions from national environmental, labour and health standards. … and by codes of conduct drawn up by the enterprises themselves. Multinational enterprises have attempted to respond to public concerns by issuing policy statements, or codes of conduct, which set forth their commitments in various areas of business ethics and legal compliance. Management systems have been designed to stimulate compliance with these commitments, and a number of standardised management systems have emerged. The Guidelines can be used by governments, business associations and other stakeholders to support these initiatives and enlist a larger number of companies in the search for best development practices. d) The importance of international co-operation International co-operation remains vital… International co-operation, whether under the auspices of international organisations or bilaterally, may assist and reinforce the FDI-related efforts of host countries, home countries and multinational enterprises (a point touched upon in the previous section). The added value of co-operation in the context of home countries, or developed countries more broadly, lies in the fact that the fields for policy action suggested above cannot easily be pursued by countries acting alone. Embarking on the vast array of policy measures proposed above for host countries is beyond the capabilities of many poorer nations. This creates a scope for other countries and organisations to help via measures aimed at technical assistance and capacity building. Foreign Direct Investment for Development: Overview 32 © OECD 2002 … not least in areas such as investment capacity building. Against the background of the Doha and Monterrey Declarations, which identify capacity building as a priority area for international co-operation, international organisations and relevant national agencies should carefully assess the need for activities in the field of international investment – particularly FDI. Increased capacity-building measures would focus on assisting developing countries to develop stronger competences in the following fields: general supply-side challenges; formulation and implementation of broad-based policies toward FDI; and the specific architecture for negotiating and implementing international treaties and agreements related to foreign investment. The OECD is well placed to contribute to these efforts… The OECD has a key responsibility to act as a forum for sharing Members’ experience with capacity building and with investment instruments of co-operation. The OECD’s distinctive methodology relies on a peer-review process based on long-tested benchmarking for FDI policies, recommendations from governments with diverse perspectives and cultures, and the monitoring of process. … which must be undertaken by several international organisations in concert. The success of such an approach will depend on the mechanisms for co-ordinating the use of resources for capacity building and technical assistance. The challenges are so great that no single institution can respond adequately to the needs of developing countries. This implies a need for greater co-operation among investment and aid agencies, and for institutional support to field representatives of aid agencies to engage in a broader range of investment capacity-building activities. Such enhanced responses presuppose that international organisations give investment capacity building a very high priority at both headquarters and the field level. OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16 PRINTED IN FRANCE (00 2002 34 1 P) No. 81839 2002

**Economic growth is key to lifting people out of poverty in developing countries and improving quality of life**

Department for International Development (DFID), DFID, "Growth: Building Jobs and Prosperity in Developing countries", 2007, https://www.oecd.org/derec/unitedkingdo m/40700982.pdf

GROWTH BUILDING JOBS AND PROSPERITY IN DEVELOPING COUNTRIES 1 Introduction **Economic growth is the most powerful instrument for reducing poverty and improving the quality of life in developing countries**. Both cross-country research and country case studies provide overwhelming evidence that rapid and sustained growth is critical to making faster progress towards the Millennium Development Goals – and not just the first goal of halving the global proportion of people living on less than $1 a day. Growth can generate virtuous circles of prosperity and opportunity. Strong growth and employment opportunities improve incentives for parents to invest in their children’s education by sending them to school. This may lead to the emergence of a strong and growing group of entrepreneurs, which should generate pressure for improved governance**. Strong economic growth** therefor**e advances human development, which**, in turn, **promotes economic growth**. But under different conditions, similar rates of growth can have very different effects on poverty, the employment prospects of the poor and broader indicators of human development. The extent to which growth reduces poverty depends on the degree to which the poor participate in the growth process and share in its proceeds. Thus, both the pace and pattern of growth matter for reducing poverty. **A successful strategy of poverty reduction must have at its core measures to promote rapid and sustained economic growth**. The challenge for policy is to combine growthpromoting policies with policies that allow the poor to participate fully in the opportunities unleashed and so contribute to that growth. This includes policies to make labour markets work better, remove gender inequalities and increase financial inclusion. Asian countries are increasingly tackling this agenda of ‘inclusive growth’. India’s most recent development plan has two main objectives: raising economic growth and making growth more inclusive, policy mirrored elsewhere in South Asia and Africa. Future growth will need to be based on an increasingly globalised world that offers new opportunities but also new challenges. New technologies offer not only ‘catch-up’ potential but also ‘leapfrogging’ possibilities. New science offers better prospects across both productive and service sectors. Future growth will also need to be environmentally sustainable. Improved management of water and other natural resources is required, together with movement towards low carbon technologies by both developed and developing countries. With the proper institutions, growth and environmental sustainability may be seen as complements, not substitutes. DFID will work for inclusive growth through a number of programmes and continues to spend heavily on health and education, which have a major impact on poor people’s ability to take part in growth opportunities. More and better research on the drivers of growth will be needed to improve policy. But ultimately the biggest determinants of growth in a country will be its leadership, policies and institutions. 2 1. WHY GROWTH SHOULD BE AT THE HEART OF DEVELOPMENT POLICY ‘Historically nothing has worked better than economic growth in enabling societies to improve the life chances of their members, including those at the very bottom.’ Dani Rodrik, Harvard University One Economics, Many Recipes: Globalization, Institutions and Economic Growth (2007) The central lesson from the past 50 years of development research and policy is that economic growth is the most effective way to pull people out of poverty and deliver on their wider objectives for a better life. Growth helps people move out of poverty Research that compares the experiences of a wide range of developing countries finds consistently strong evidence that rapid and sustained growth is the single most important way to reduce poverty. A typical estimate from these cross-country studies is that a 10 per cent increase in a country’s average income will reduce the poverty rate by between 20 and 30 per cent.1 The central role of growth in driving the speed at which poverty declines is confirmed by research on individual countries and groups of countries. For example, a flagship study of 14 countries in the 1990s found that over the course of the decade, poverty fell in the 11 countries that experienced significant growth and rose in the three countries with low or stagnant growth. On average, a one per cent increase in per capita income reduced poverty by 1.7 per cent (see Figure 1).2 Among these 14 countries, the reduction in poverty was particularly spectacular in Vietnam, where poverty fell by 7.8 per cent a year between 1993 and 2002, halving the poverty rate from 58 per cent to 29 per cent. Other countries with impressive reductions over this period include El Salvador, Ghana, India, Tunisia and Uganda, each with declines in the poverty rate of between three and six per cent a year. Driving these overall reductions in poverty was the rebound in growth that began for most of the countries in the mid-1990s. The median GDP growth rate for the 14 countries was 2.4 per cent a year between 1996 and 2003. Numerous other country studies show the power of growth in reducing poverty: 1 See, for example, Adams, R (2002) Economic Growth, Inequality and Poverty: Findings from a New Data Set, Policy Research Working Paper 2972, World Bank, February 2002, and Ravallion, M and S Chen (1997) ‘What Can New Survey Data Tell Us about Recent Changes in Distribution and Poverty?’ World Bank Economic Review, 11(2): 357-82 2 Operationalising Pro-Poor Growth (OPPG) Programme (2005), ‘Pro-Poor Growth in the 1990s: lessons and insights from 14 countries’ 3 • China alone has lifted over 450 million people out of poverty since 1979. Evidence shows that rapid economic growth between 1985 and 2001 was crucial to this enormous reduction in poverty.3 • India has seen significant falls in poverty since the 1980s, rates that accelerated into the 1990s. This has been strongly related to India’s impressive growth record over this period.4 • Mozambique illustrates the rapid reduction in poverty associated with growth over a shorter period. Between 1996 and 2002, the economy grew by 62 per cent and the proportion of people living in poverty declined from 69 per cent to 54 per cent.5 Growth transforms society The positive link between growth and poverty reduction is clear. The impact of the distribution of income on this relationship – in particular, whether higher inequality lessens the reduction in poverty generated by growth – is less clear. Initial levels of income inequality are important in determining how powerful an effect growth has in reducing poverty. For example, it has been estimated that a one per cent increase in income levels could result in a 4.3 per cent decline in poverty in countries with very low inequality or as little as a 0.6 per cent decline in poverty in highly unequal countries.6 Such calculations need to be interpreted with care given the multitude of variables involved. Even if inequality increases alongside growth, it is not necessarily the case that poor people will fail to benefit – only that they will benefit less from growth than other households. But contrary to widespread belief, growth does not necessarily lead to increased inequality. While some theoretical research suggests a causal relationship between growth and inequality (and vice versa), the consensus of the latest empirical research is that there is no consistent relationship between inequality and changes in income. The experiences of developing countries in the 1980s and 1990s suggest that there is a roughly equal chance of growth being accompanied by increasing or decreasing inequality.7 In many developing countries, rates of inequality are similar to or lower than in developed countries. A series of studies using cross-country data all suggest that growth has neither a positive nor a negative effect on inequality.8 3 Lin (2003), Economic Growth, Income Inequality, and Poverty Reduction in People's Republic of China, Asian Development Review, vol. 20, no. 2, 2003, pp. 105-24 4 HBhanumurthy and HMitra (2004), Economic Growth, Poverty, and Inequality in Indian States in the Pre-reform and Reform Periods, Asian Development Review, vol. 21, no. 2, 2004, pp. 79-99 5 Arndt, James, and Simler (2006), Has Economic Growth in Mozambique Been Pro-Poor?, Food Consumption and Nutrition Division Discussion Paper 202 6 Ravallion (2007), Inequality is Bad for the Poor, Chapter 2 in Inequality and Poverty Re-examined, ed Jenkins and Micklewright, Oxford 7 Ravallion (2001) – Growth, Inequality and Poverty Looking Beyond the Averages 8 Chen and Ravallion (1997), Easterly (1999), Dollar and Kraay (2002), (Ravallion, 2004, 2007) 4 This is not to say that increased growth has not led to increasing inequality in some countries. Both China and India have seen widening inequality as their growth rates picked up over the 1990s. And both Bangladesh and Uganda would have seen higher rates of poverty reduction had growth not widened the distribution of income between 1992 and 2002. For example, one study suggests that the proportion of people living in poverty in Uganda at the end of this period would have been 30% instead of 38% had the poor benefited proportionally from growth.9 Due to the complex, two-way relationship between growth and inequality, it is impossible to say whether such proportional growth was possible. Even if it was, it may have come at the cost of higher growth. If the growth rate was curtailed sufficiently, the reduction in poverty may have been less than the high but relatively unequal growth experiences of each country. Controlling for initial inequality of assets such as land and education, income inequality no longer seems to play a role in expanding or reducing the opportunities for growth.10 But asset inequality itself may be important because owning an asset that can be used as collateral can expand access to financial markets. Such access is likely to be growth-enhancing when it allows more households the opportunity to invest – which is especially important in economies where the average firm size is small. Reducing asset inequality is a challenge, as it concerns the stock of wealth rather than the flow of income. Redistribution of assets may have an adverse effect on the incentives to save and invest, which may more than counteract the positive effects of more equitable asset ownership. Moreover, it is often politically contentious, and may be destabilising. 9 Besley and Cord (2007) 10 Birdsall, N. and J.L. Londono (1997), ‘Asset Inequality Matters: An Assessment of the World Bank’s Approach to Poverty Reduction’, American Economic Review, 87(2), AEA Papers and Proceedings: 32-37. 5 Growth creates jobs Economic growth generates job opportunities and hence stronger demand for labour, the main and often the sole asset of the poor. In turn, increasing employment has been crucial in delivering higher growth. Strong growth in the global economy over the past 10 years means that the majority of the world’s working-age population is now in employment. At the same time, in every region of the world and particularly in Africa, youth unemployment is a major issue. This is reflected in higher than average unemployment rates: young people make up 25 per cent of the working population worldwide but 47 per cent of the unemployed. Nevertheless, since the early 1990s, global employment has risen by over 400 million. While China and India account for most of this increase, almost all of the new jobs have been created in developing countries.11 Real wages for low-skilled jobs have increased with GDP growth worldwide, which indicates that the poorest workers have benefited from the increase in global trade and growth.12 Fears that greater global integration and ever more ‘footloose’ international investors would push down wages have proved to be unfounded. Indeed, evidence on foreign direct investment suggests that firms are attracted to countries with higher, not lower, labour standards.13 Macroeconomic factors, such as low inflation, export orientation and low labour taxes, help to determine how much employment is created by growth. Structural factors, such as the balance of the economy between agriculture, manufacturing and services, are also important. While the relationship between growth and employment remains robustly positive, the strength of the link has weakened slightly since the turn of the millennium. This has raised concerns about ‘jobless growth’ in some countries. Between 1999 and 2003, for every one percentage point of additional GDP growth, total global employment grew by 0.30 percentage points – a drop from 0.38 for 1995-99.14 This may prove a problem for some countries in the Middle East, South Asia and subSaharan Africa, where the number of jobs being created may not be high enough to absorb their growing workforces. But even if the relationship between growth and employment is weakening, this may suggest a stronger rationale for a higher growth strategy in the future. Furthermore, the trend may mask improvements in productivity that could provide the basis for the creation of even more job opportunities in the longer term. 11 Global Economic Prospects, 2007 12 Teal (2006), ‘ What Africa needs to do to spur growth and create well-paid jobs’ CSAE 13 From Global Economic Prospects, 2007, box 4.5. 14 S. Kapsos, (2005), Employment Intensity of Growth: trends and macro-determinants, ILO, 6 What kinds of jobs? The relationship between growth and employment is not simply about the quantity of jobs created by growth; it is also about the types of jobs created. In particular, there have been concerns that the number of jobs in the informal freelance sectors rises with growth alongside increases in the formal sector. Traditionally, informal employment has been understood to be involuntary – a sector where ‘surplus’ workers scratch a living while ‘queuing’ for a limited number of better formal sector jobs. While informal employment is better than none at all, it has been assumed that it is very much second best to formal employment. Recent evidence suggests that informal employment should not be seen as the disadvantaged counterpart of the formal sector but as a legitimate alternative, one that fosters entrepreneurial ambition.15 It is likely that a combination of these two views is applicable in most developing countries. Certain countries and regions have relatively large informal sectors. For example, in Latin America, it was the primary generator of jobs in the 1990s with 60 per cent of new jobs created by micro-enterprises, own-account workers and domestic services. In Africa, if rural and agricultural sectors are included, the figure is closer to 90 per cent.16 The combination of excessively regulated labour markets and low levels of development is the principal driver of the informal sector. Careful deregulation of labour markets will reduce the cost of employment for firms in the formal sector and increase the share of formal employment. Of course, this may come at a cost to those already employed in the formal sector. There is thus a trade-off between the amount of formal employment and the benefits it provides, and individual countries will need to consider reform in this area carefully. 15 Note by informal we do nt mean illegal employment see Maloney (2004), ‘Informality Revisited’, World Development. 16 See Maloney (2004), ‘Informality Revisited’, World Development 7 Growth drives human development Economic growth is not just associated with reducing poverty. There is also clear evidence for a positive link between economic growth and broader measures of human development. Economic growth is not fundamentally about materialism. Nobel laureate Amartya Sen has described economic growth as a crucial means for expanding the substantive freedoms that people value. These freedoms are strongly associated with improvements in general living standards, such as greater opportunities for people to become healthier, eat better and live longer.17 Growth generates virtuous circles of prosperity and opportunity (see Figure 2). Strong growth and employment opportunities improve incentives for families to invest in education by sending their children to school. This may lead to the emergence of a strong and growing group of entrepreneurs, which will generate pressure for improved governance. Strong economic growth therefore advances human development, which, in turn, promotes economic growth. Equally, weak economic growth implies vicious circles in which poor human development contributes to economic decline, leading to further deterioration in human development. For many countries, achieving the Millennium Development Goals will require breaking out of vicious circles to enter virtuous circles. The link between economic growth and human development operates through two channels. First, there is the ‘macro’ link whereby growth increases a country’s tax base and therefore makes it possible for the government to spend more on the key public services of health and education. Growth is essential if governments are going to be able to continue to provide public services, which directly benefit the poor. Although aid may provide initial support, increasing public expenditure in developing countries must ultimately be financed by collecting greater tax revenues. Given the generally low levels of tax revenue collection (often still below 20 per cent of GDP in African countries), this can only be achieved in the long-run by strong and sustained growth. Botswana and Kenya provide contrasting examples of this macro link. In 1960, the two countries had similar levels of per capita income and spent approximately nine per cent of their GDP on health and education over the next three decades. But by 1990, because Botswana had grown by 6.5 per cent a year while Kenya had only grown by 1.6 per cent a year, Botswana was spending five times as much as Kenya on these sectors.18 A review of nine countries shows that higher growth during the 1990s was indeed accompanied by bigger increases in government budgets.19 A DFID study shows that 17 Sen, A (1999), Development as Freedom, Oxford University Press 18 UNDP (1996), ‘Human Development Report 1996’, United Nations Development Programme, New York 19 Wilhelm, V and I Fiestas (2005), ‘Exploring the link between public spending and poverty reduction: lessons from the 1990s’, World Bank Institute, Washington, DC 8 on average for low-income countries, a 10 per cent increase in per capita income is associated with an 11 per cent increase in education expenditure, an 11.4 per cent increase in health expenditure and a 12.7 per cent increase in tax revenue. A sustained two per cent increase in per capita growth would bring forward the date at which a typical low-income country could domestically finance recommended health expenditure rate ($40 per capita) by 33 years.20 The second channel between growth and human development is a ‘micro’ link, whereby growth raises the incomes of poor people and thereby increases their ability to pay for activities and goods that improve their health and education. Vietnam’s experience between 1993 and 1998 is an example of this. The country’s high rate of growth during that period (six per cent a year) led to significant increases in household incomes (seven per cent a year). This resulted in increased demand for education: the average length of time that children attended school rose from 7.5 to 8.1 years, and enrolment rates in secondary schools increased by approximately eight percentage points.21 In general, a growing economy tends to provide greater job opportunities. These lead in turn to increased demand for education as people expect higher returns for them and their children from the investment of time and money in acquiring skills.22 The link works equally in the opposite direction. Increased government spending on health and education tends to boost growth in the future, and households reap the benefits from increased investments in health and education through higher future incomes. This generates a virtuous circle of development.23 Improved health and education through growth There is overwhelming evidence that higher incomes lead to a better quality of life, not least in terms of the Millennium Development Goals on health and education. Key research findings here include the following: • Higher levels of income reduce infant mortality.24 India demonstrates the strength of this relationship: a 10 per cent increase in GDP is associated with a reduction in infant mortality of between five and seven per cent.25 • Primary and secondary school enrolment rates are positively associated with higher levels of per capita income. 26 20 Venables (2006) – Economic Growth and National Finance of Public Services 21 Glewwe, P and H G Jacoby (2004), ‘Economic growth and the demand for education: is there a wealth effect?’, Journal of Development Economics, Vol. 74, pp. 33-51 22 UNDP (1996), ‘Human Development Report 1996’, United Nations Development Programme, New York 23 See HMT DFID (2005), From commitment to action: human development and growth, for a fuller discussion 24 Pritchett and Summers (1995) 25 Bhalotra (2006), Childhood Mortality and Economic Growth, WIDER research paper No. 2006/79 26 HMT DFID (2005), From commitment to action: Human development and growth 9 • Educational outcomes such as test scores and the rates at which children repeat a year’s schooling or drop out of school are significantly affected by per capita income.27 • There is usually less disease in wealthier countries. For example, the prevalence of HIV/AIDS is 3.2 per cent for the least developed countries, 1.8 per cent for low-income countries, 0.7 per cent for middle-income countries and 0.3 per cent for high-income countries.28 • Life expectancy is clearly positively related to the level of per capita income, according to cross-country evidence.29 • In addition to beneficial effects on health and education, political, gender and ethnic oppression are typically lower the wealthier the country.30 But while growth can have strongly positive effects, it is not sufficient for making more rapid advances in human development. For example, both Angola and Georgia have per capita incomes of $2,200, but while Georgia’s levels of health and education are almost as high as those in OECD countries, Angola’s are among the worst in the world.31 In the 2002 Human Development Index (which measures countries’ performance in terms of life expectancy, adult literacy, school enrolment and average income), Equatorial Guinea was ranked 103 places lower than on its growth performance – reflecting poor governance of its huge oil wealth. Other poor performers on human development relative to growth include Botswana (67 places lower), South Africa (66), Gabon (50), Namibia (48) and Angola (38).32 The strong links between growth and human development are often mediated by policy choices and structural factors, such as the priority given to investing in health and education vis-à-vis other potential policy interventions to achieve faster growth.33 27 Ibid. Barro and Lee (1997) 28 UNDP (2004), ‘Human Development Report 2004’, United Nations Development Programme 29 Barro and Sala-i-Martin (1995) Cited in Easterly (1999), Life During Growth, World Bank. 30 Boone (1996) 31 HMT DFID 2005 32 Commission for Africa, page 223 33 HMT DFID 2005 10 2. THE CHALLENGE OF ACHIEVING STRONGER ECONOMIES ‘Is there some action a government of India could take that would lead the Indian economy to grow like Indonesia's or Egypt's? If so, what exactly? If not, what is it about “the nature of India” that makes it so? The consequences for human welfare involved in questions like these are simply staggering. Once one starts to think about them, it is hard to think about anything else.’ Robert Lucas, Nobel laureate in economics, University of Chicago The Mechanics of Economic Development (1985 Marshall Lectures) During the 1990s, economic growth in the developing world outpaced that in the developed world for the first time. This led to a decline in aggregate poverty rates and the number of people living on less than $1 a day. Nevertheless, progress has been uneven across countries and regions. Economic growth in East Asia has averaged nine per cent a year over the last 15 years, largely driven by China. The number of people living on less than $1 a day fell from 472 million in 1990 to 213 million in 2003, although inequality rose over the same period. The region’s share of world income doubled in the quarter century to 2005, and its share of world exports tripled. Over the same period, South Asia has had a lower average annual growth rate of 3.8 per cent. Per capita growth rates were dampened by persistent high population growth in some places, and often associated with rising inequality. And while both India and Pakistan have seen recent accelerations in their growth rates, growth remains fragile. Sub-Saharan Africa will probably not meet the first Millennium Development Goal of halving the proportion of people living on less than $1 a day. Between 1980 and 2000, growth averaged 2.2 per cent a year and per capita income stagnated. Africa’s shares of world income and world trade halved. However, Growth has picked up significantly in recent years, averaging five per cent a year, largely because of improvements in policy and increases in oil and metals prices. The global growth record In the aftermath of the Second World War, many developing countries sought to emulate the achievements of the developed world. Rapid industrialisation was viewed as the key to growth, and it was encouraged by a mixture of subsidies to industry, tariff protection and, in many cases state ownership. But many of these favoured industries were not sustainable after the removal of their state protection. Consumers, taxpayers and workers suffered as inappropriate industries were kept as going concerns by government support. Developing countries typically had a surfeit of labour: capital-intensive industries were therefore inappropriate. The agricultural sector was often crippled under high taxation to pay for these schemes. And the environmental impact of attempting to develop heavy industry away from the scrutiny of established regulators was often disastrous. 11 The response to these failures was to limit the role of governments in the economy and, in the late 1980s and early 1990s, to try to focus on the ‘right policies’. These were those policies associated with what John Williamson called the ‘Washington consensus’: lower fiscal deficits; lower taxes; lower import tariffs; fewer restrictions on international trade and capital flows; privatisation; deregulation; secure property rights; and a greater role for markets in allocating resources more generally. As the 1990s unfolded, countries around the world implemented policies consistent with that consensus: • In Africa, countries such as Ghana, Tanzania and Uganda embarked on privatisation, retrenched the public sector and liberalised trade. • In Asia, India abandoned central planning, embracing a wide range of reforms, and China continued its market-oriented reforms. • In Eastern Europe and the former Soviet Union, market reforms followed the end of communism. • In Latin America, countries stabilised their economies, defeated hyperinflation, further opened their markets to international trade and capital, and privatised public enterprises. • In places as diverse as Bolivia, Brazil, India and Russia, grossly overvalued exchange rates became more competitive. In the early 1990s, most economists believed that these developments, combined with a favourable international environment, would enable developing countries to put the ‘lost decade’ of the 1980s behind them and return to a path of sustained growth. But the results were mixed with some countries benefiting more than others. For example: • Sub-Saharan Africa failed to take off, despite some policy reform, improvements in the political and external environments, and continued foreign aid. The successes – Mozambique, Tanzania and Uganda – remain fragile more than a decade later. • Severe financial crises disrupted markets and growth across a wide range of developing countries, including Mexico in 1994, East Asia in 1997, Russia in 1998, Brazil in both 1999 and 2002, Turkey in 2000 and Argentina in 2001. • The Latin American recovery in the first half of the 1990s proved short-lived. The 1990s saw lower growth in per capita income in Latin America than between 1950 and 1980, despite the dismantling of the state-led, populist and protectionist policy regimes of the region. • Transition economies in Eastern Europe saw an unexpectedly deep and prolonged collapse in output. Many took more than a decade to recover to the levels of income they had in 1990. 12 World Bank research34 shows that out of 117 developing countries with populations of more than half a million, only 18 countries can be defined as having had a ‘successful’ growth experience in the 1990s. These are countries that narrowed the gap with the OECD countries over the 1990s, and sustained per capita growth of at least one per cent during the 1980s. The 18 countries – Bangladesh, Bhutan, Botswana, Chile, China, Egypt, India, Indonesia, Laos, Lesotho, Malaysia, Mauritius, Nepal, South Korea, Sri Lanka, Thailand, Tunisia and Vietnam – account for about 60 per cent of the world’s population and are extremely diverse economically, politically and historically. What is common among these countries has been their persistent ability to grow over time. The challenge of development is therefore to transform growth episodes into sustained growth. Albeit with different degrees of success, the 18 countries have been able to meet this challenge. 34 Pritchett (2005), Country Note B in World Bank (2005), Economic Growth in the 1990s: Learning from a Decade of Reform 13 Four lessons from research and experience There are many lessons from this period most notably that those countries that have been successful implemented reforms in a manner that departed from conventional wisdom. Rapid economic growth in China, India and a few other Asian countries has resulted in an absolute reduction in the number of people living in extreme poverty.35 China and India increased their reliance on market forces, but their policies differed in many respects from those advocated by the Washington consensus. The World Bank’s 2005 report is probably the most comprehensive attempt at making sense of the facts of the last decade and a half and synthesising much of the research evidence. The central result of this body of research is a rediscovery of the complexity of economic growth, recognising that it is not amenable to simple formulas: ‘There is no unique universal set of rules. Sustained growth depends on key functions that need to be fulfilled over time: Accumulation of physical and human capital, efficiency in the allocation of resources, adoption of technology, and the sharing of the benefits of growth. Which of these functions is the most critical at any given point in time, and hence which policies will need to introduced, which institutions will need to be created for these functions to be fulfilled, and in which sequence, varies depending on initial conditions and the legacy of history.’36 Four overarching lessons from recent experience and the latest research are notable: I. There is no one right answer A mistake often made in the early 1990s was to translate general policy principles into a unique set of policy actions. In the words of the World Bank report: ‘The principles of … ‘macroeconomic stability, domestic liberalisation, and openness’ have been interpreted narrowly to mean ‘minimise fiscal deficits, minimise inflation, minimise tariffs, maximise privatisation, maximise liberalisation of finance’, with the assumption that the more of these changes the better, at all times and in all places – overlooking the fact that these expedients are just some of the ways in which these principles can be implemented.’37 There are no best-practice policies that will always yield the same positive result. To sustain growth requires key criteria to be met, but there is no unique combination of policies and institutions for fulfilling them. For example, creating stronger incentives for private investment may require improving the security of property rights in one country, but enhancing the financial sector in another. Technological catch-up may call for stronger or weaker patent protection, depending on the level of development. 35 See Rodrik (2005) ‘Growth Strategies,’ in P. Aghion and S. Durlauf, eds., Handbook of Economic Development 36 World Bank (2005) Economic Growth in the 1990s: Learning from a Decade of Reform’ 37 World Bank (2005), p. 11, emphasis in the original 14 This helps to explain why growing countries have such diverse policy configurations, and why attempts to copy successful policy reforms in another country often end up in failure. II. Institutions matter The institutional context is perhaps the single most important factor in determining whether a given policy will be appropriate or not. Institutions may be crudely seen as the framework in which markets operate: the basis of the rule of law and enforcement of property rights. Institutions are often deeply rooted and are difficult to change, though unlike some other contextual factors (such as climate and location), change is possible. A wide variety of events and policies are influenced by different institutional settings. For example, natural resource endowments can be beneficial to countries with welldefined and enforceable property rights, such as the UK or Norway, but are often detrimental in countries without these rights, as in many African countries. This is because without well-defined property rights, there is a temptation for individuals to attempt to obtain the resources of others either illicitly (theft) or using the legal process (disputed ownership). Incentives for investment in physical and human capital, the scope for technology transfer and a whole host of other key conditions for growth depend on the institutional setting. III. Timing is everything Too often, research has focused simply on what is needed. The question of when it is needed has seldom been investigated, which has led to disastrous outcomes. Two separate factors are crucial: the sequencing of policies; and the speed at which they are introduced. In Eastern Europe, market-based reforms were introduced as ‘shock therapy’: quickly and simultaneously. Institutional reforms were left incomplete even as large parts of the state-run economy were privatised and deregulated. This contributed to the collapse in output in many of these countries in the early 1990s. In Brazil in the early 1990s, trade reforms were introduced rapidly, without much concern for the competitiveness of the exchange rate and the response of the manufacturing sector. In contrast, during the same period in India, trade reforms were introduced at a gradual pace, and so were designed to enable domestic firms to restructure and spread the costs of adjustment over time. The exchange rate was kept competitive to ensure export growth, and the Indian industrial sector flourished. IV. Focus is crucial Reform efforts need to be selective and focus on the ‘binding constraints’ on economic growth. Governments must avoid the temptation to implement only the uncontroversial 15 policies and instead focus attention where it is needed. This makes it vital to avoid the formulaic approach of the Washington consensus, to recognise the individual characteristics of a country and to undertake more rigorous economic analysis. While there is no foolproof method of identifying the binding constraints, common sense and economic analysis can help. For example, when investment is constrained by poor property rights, improving financial intermediation will not help fuel growth. When investment is constrained by a high cost of capital, improving institutional quality will not catalyse growth. The World Bank report argues that experimentation and learning about the nature of the binding constraints are an integral part of the reform process. It is not easy for governments to identify the binding constraints at a given point in time and stage of development, but proposals for ‘growth diagnostics’ look promising (see box).38 38 Hausman, Rodrik, and Velasco (2006) 16 Growth diagnostics It is impossible for governments to fix everything at once. Long lists of reforms can have the effect of impeding action and leading to inappropriate sequencing of the reforms that are implemented. Prioritisation is key to formulating a credible growth strategy. This requires analysis that identifies both the key constraints on growth, and the obstacles to removing these constraints, including political obstacles. So not only is it essential to have sound economic analysis; it also requires an appreciation of the political context within a country. Growth diagnostics is the process of identifying binding constraints on growth.39 The process is a dynamic one: one constraint successfully removed will lead to another one binding. The approach has been used with some success in countries in Africa and Latin America. One of the more recent ‘growth diagnostics’ was conducted on Uganda.40 It concluded that: • A lack of investment in infrastructure was the key binding constraint on Ugandan growth. • Electricity was the most urgent problem, with major investment needed in the towns outside of Kampala to stimulate job creation. • Road infrastructure was similarly of concern: existing roads need to be better maintained, and key bottlenecks near Kampala need to be widened. • Financial intermediation, or a lack of it, would prove to be a key future constraint should this physical infrastructure be addressed. • Power and fuel were highly priced. • Poor coordination was the driver of problems in the infrastructure network, as well as in skills training. These conclusions are not atypical of the whole of sub-Saharan Africa: infrastructure is often the binding constraint. This may have a regional dimension – for example, Kenya’s infrastructure is a constraint on Uganda’s growth given the necessity of importing and exporting through Mombasa. But the list of constraints may still differ from country to country, and these differences are likely to be greater between countries in different regions. As well as identifying the obstacles that constrain growth, it is essential to assess the feasibility of – and incentives for – removing them. This is partly a matter of financial resources (such as funds to finance infrastructure), but it also depends on technical capacity and political economy. Often existing constraints benefit vested interests within the economy and these interests challenge reform. Therefore, even if two countries have a common list of constraints to be dealt with, the optimal method to alleviate those constraints may still differ between countries. This is an area of the ‘growth diagnostics’ methodology that needs to be further developed and improved. Analysis requires understanding of the political environment in which reforms are occurring, of the way in which reform and growth will affect different interest groups, and of the role of political leadership in facilitating change. Analysis is only useful once its conclusions are adopted by governments and placed at the heart of credible growth strategies. There is a great deal of room for improvement by governments and donors alike in the development of such strategies. And strategies need strong institutions to make them real. Capacity-building takes time and is labour-intensive. 39 Hausmann Rodrik, and Velasco (2006). 40 Uganda CEM (2007) 17 Eight essential conditions for strong growth Specific country analysis of the binding constraints on growth and the policy actions likely to overcome them is essential in forming a growth strategy. As the latest research from sub-Saharan Africa shows, ‘the diverse history, opportunities and current growth conditions in different African countries, and how these make any growth strategy, [are] first and foremost, a country-specific task.’41 While there is no ‘one right answer’ in terms of policy, there is wide agreement on the essential, if not sufficient, pillars likely to underpin a successful growth strategy in lowincome countries. Although a diversity of conditions and history precludes even a broad strategy that fits all low-income countries, the latest research from regions such as subSaharan Africa show that it is possible to narrow the scope of the process of searching for the most binding constraints and deciding what to do about them. There are some areas that need to be addressed, even if the way of addressing them depends on individual circumstances. Growth is ultimately about investment in capital and labour and improving the productivity of these factors of production through the processes of innovation and technological absorption. The most pertinent question for low-income regions, such as sub-Saharan Africa, is therefore how to boost the low levels of investment and productivity growth that are characteristic of underperforming countries. Common binding constraints that may need to be addressed include: I. Physical capital Growth requires investment in physical capital – the plants, machinery, raw materials, etc. that are central to production – and investment at all scales requires financial capital. Every country that has achieved sustainable growth has managed a significant increase in the levels of both domestic and foreign investment as a percentage of GDP. Significant technology is usually embodied in capital goods such as plants and machinery that help to support a country’s move up the technological ladder. Restricted or expensive access to finance is a brake on such investment, particularly for small and medium-sized enterprises and for the informal sector. A well-functioning financial sector enhances economic growth through ensuring that capital is not left idle, that it is directed to where it is most beneficial, and that risks are borne efficiently. The quality of investment matters alongside the quantity. Poorly targeted subsidies have the capacity to hamper growth by redirecting capital away from where it is most productive. II. Human capital Investment in education and skills can be as important as investment in machinery and plants in delivering growth. Investment in this ‘human capital’ is especially appealing as it directly leads to improved human development as well as helping to drive growth. 41 Ndulu et al (2007), Challenges of African Growth, World Bank, pg 3 18 The costs of this investment are both direct (for example, the cost of school equipment and books) and indirect (the opportunity costs of the wages lost from remaining in education). Amelioration of these, together with raising the return on education (the wages for skilled workers) is likely to increase educational investment. A wide range of labour skills are needed to catalyse and sustain economic growth, including education at all levels from primary schools through to universities, and including technical and vocational training as well as ‘learning by doing’. Unfortunately, progress in overcoming shortages of skilled and trained manpower in the world’s poorest countries has been disappointingly slow. Although basic education is widely considered to be critical for reducing poverty, there is emerging evidence that secondary and higher education are more significant in raising long-term growth rates and income levels as they play a key role in the creation and application of new knowledge and technologies.42 This effect occurs primarily through people’s improved capabilities to absorb technological advances. III. The rule of law The business environment needs to have safeguards that ensure that the returns of investment will be collected by investors. Political instability, corruption and crime can all threaten potential returns and make investment unattractive and thus damage the prospects for growth. The cost of crime and the cost of security as a percentage of sales are particularly high in low-income regions such as sub-Saharan Africa. Recent surveys of the investment climate in low-income countries identify the costs of legal enforcement of contracts and compliance with regulation as having the biggest negative impact on business profitability. Strengthening the capacity of relevant public institutions for protecting property rights can often therefore be important. Equally, evidence from Africa suggests that particular attention should be given to the prevention of corruption. As well as curtailing domestic investment, poor property rights are likely to divert foreign investment elsewhere. This may substantially reduce the scope for technology transfer that will increase productivity and ultimately growth. IV. Competitive markets Competition typically ensures that consumers are able to obtain more goods at lower prices than under a monopoly. Judicious use of regulation will help foster a competitive environment. It is important that this is applied by an independent body that is not susceptible to capture by any particular interest group. While certain industries (such as utilities) do not readily lend themselves to competition due to the vast cost savings they possess if they are large, this does not apply in most cases. 42 For example, see Barro and Lee (1993); Barro (1998); Hanushek and Kim (1995). 19 Governments need to ensure that they do not themselves reduce open and fair competition, either wittingly or unwittingly. This may happen as a result of pandering to entrenched vested interests, or it may come from institutional hurdles such as expensive and time-consuming procedures to regulate business. It is vital to ensure that businesses are able to enter and exit markets with relative ease, and that there are opportunities for business innovation. It is by this route that firms and industries can increase their productivity, which in turn drives long-term growth. V. Macroeconomic stability Investors make decisions based on the rate of return they expect to receive and the riskiness of the investment project: the higher the risk, the higher the required rate of return. A stable macroeconomic environment is crucial to reducing the risks associated with investment. This applies as much to human capital as it does to physical capital: people are less likely to want to bear the costs of education when there is a greater risk that they will be unemployed on completion. A stable macroeconomic environment includes monetary policy that delivers low and stable inflation, effective management of government tax and spending to deliver public services; and an exchange rate regime that is not excessively distorted or volatile. VI. Infrastructure Investors need good access to knowledge, to inputs of capital, labour and raw materials, and to markets. This requires transport infrastructure, as well as the provision of a regular supply of electricity and other utilities. In Africa, transport and energy make up the largest proportion of indirect costs for businesses, weighing heavily on the competitiveness of firms in most African countries.43 In addition to transport infrastructure, communication infrastructure is crucial in disseminating information about prices and markets across a wide area. In this respect, the spread of mobile communications has been revolutionary. In recent years, limited banking services have even become available using mobile telephones in many parts of the developing world. VII. Openness to trade and investment No country has grown on a sustained basis in recent times without successfully integrating into global markets. There are two facets to this: integration into goods markets and integration into input markets, notably integration into financial capital. Openness of a country’s goods markets enables growth, facilitating technology transfer, increasing competition and benefiting consumers.44 In the past, some countries have followed a policy of ‘import substitution’, deliberately shielding their industries from 43 Ndulu (2007). 44 For instance, see Alcalá and Ciccone (2004) or Frankel and Romer (1999) 20 international markets to allow them to develop. The success of such policies has been mixed: governments often protected industries that were not sustainable without protection. As protection has costs in terms of lost growth, such policies were harmful. The relationship between open capital markets and growth is less clear. Capital market integration allows smoothing of living standards, risk-sharing among countries and technology transfer from the developed world.45 The challenge in both of these areas is the way in which openness is achieved. Proper sequencing and pacing of reform is needed to smooth the adjustment for domestic producers. This is especially important for capital market integration. Hasty liberalisation of capital markets facilitated many financial crises over the past decade, which significantly curtailed growth. VIII. Increased agricultural productivity Low-income countries typically have large agricultural sectors. Productivity increases in agriculture often serve as the catalyst for growth, as well as having strong effects on reducing poverty due to the high numbers of people involved in these sectors. Adapting or developing technologies and improving agricultural markets for seed, fertiliser and agricultural outputs will help this process. For many poor African countries, agriculture will be the centrepiece of their efforts to achieve growth, poverty reduction and food security for the foreseeable future. A key challenge is to make agriculture more worthwhile by raising its profitability through technological innovation. This will be critical if poor regions such as Africa are to embark on a successful ‘green revolution’ to raise agricultural productivity and release labour for more diversified, higher productivity activities such as manufacturing. Policy achievements and shortfalls How have developing countries performed in recent years against the eight essential conditions for strong growth? Most have been successful in providing greater macroeconomic stability. Inflation and public sector deficits are down, and growth has responded to this improved policy environment, although fiscal challenges remain on both tax and public expenditure. The only caveat to this is that international financial crises can have particularly pronounced effects in developing countries. Success is much more mixed on the other seven conditions. This is reflected in country circumstances that constrain the private sector. Examples include: • In Ghana, a study of manufacturing firms between 1987 and 2003 found that growth of large formal employers has stagnated, while informal micro-enterprises have proliferated, due in large part to credit constraints and labour market regulations. 45 For example, Borensztein, DeGregorio, and Lee 1998; and Lumbila 2005. 21 • In India, there is a looming skills shortage. The quality of elementary education is often low, and the government is seeking to expand the proportion of youth who have vocational education from less than five per cent to around 20 per cent. • In Sierra Leone, the cost of opening a current account in the financial sector is more than 50 per cent of annual income per capita. • In Nigeria, 95 per cent of firms have their own generators due to an unreliable power network. The figure for China is 20 per cent. • In Burundi, the average time necessary to comply with all import procedures is 124 days. The OECD average is 12 days. • In Rwanda, just 18 per cent of farmers use fertilisers and three per cent use improved seed varieties. Having improved the macroeconomic climate, the core challenge now is for countries to develop strategies that prioritise micro-level reforms, build institutions and enable investment. Policy-makers need to identify those actions that have the highest impact and which can be implemented and sustained. 22 3. NEW DFID SUPPORT FOR GROWTH ‘But the global poverty emergency cannot be solved by one organisation or even a coalition of governments on their own: we now need the concerted efforts of private, public and third sectors working together - a new public-private alliance founded on promoting trade and growth.’ Gordon Brown, November 2007 Putting growth and opportunity at the heart of the development dialogue DFID will work with countries that have a commitment to securing economic growth and a credible strategy for achieving this growth. Growth strategies should be based on rigorous and comprehensive analysis, and should be at the heart of the national development or poverty reduction strategy. Ownership by the country concerned is an important principle. A growth strategy will involve a combination of economic policy initiatives and plans for expenditure on physical and social infrastructure and other growth-related activities. These initiatives should be fully costed and appraised, and decisions based on estimates of likely returns. They should be integrated in overall government decision taking, recognising trade-offs between expenditures in different sectors. They should also be integrated with macroeconomic projections and thereby give a view of future income levels, government revenue and expenditures, and external financing requirements both from donors and from capital markets. The strategies will make clear the priorities for assistance and will be the basis of countries’ relationships with donors, and for the formulation of DFID Country Assistance Plans and Joint Assistance Strategies. Our objective is to put growth and opportunity at the heart of the development dialogue, particularly in Africa. This implies supporting countries poverty reduction strategies towards a new stage in their evolution. The focus of our partnerships will be on wealth creation and opportunity, with the private sector participating actively with governments and civil society to identify and address binding constraints to inclusive growth. In Asia, the focus is more likely to be on ensuring that growth is more inclusive and opportunities exist for all. DFID should send a strong signal that countries’ efforts to increase jobs and improve incomes are central to their development process and should stand ready to support their efforts. Formulating and implementing growth strategies DFID will make a stronger effort in assisting countries both in the formulation and delivery of their growth strategies. The strategies will be a key element underlying DFID Country Assistance Plans and Joint Assistance Strategies. An economic growth strategy should be based on a rigorous economic analysis of country circumstances and opportunities. This involves assessment of the main constraints on growth and identification of market and government failures; analysis of the costs and benefits of actions that relax these constraints; and assessment of risks 23 to the proposed policy programme. The analysis will yield a prioritised sequence of actions (policy and institutional reforms and expenditures). Formulation of such strategies involves high quality analytical work based on detailed knowledge of and research into the economy. This will involve government, the private sector, local researchers and support from external researchers. DFID proposes to establish a new International Growth Centre that will be able to provide support. The centre could draw on high quality expertise from academia, the private sector and government. It could be envisaged as much as a network, as a physical presence. Established by international competition we will look to an academic base, or alternatively a business environment (or a mix of the two, such as a business school) to run the center. Country engagement might be enhanced by country level Growth Commissions made up of government, private sector and civil society, together with world leading academics and the international private sector. The focus of work would be as much on future growth, looking at emerging opportunities and challenges from globalisation, and possibly at new environmental issues, as on the traditional agenda. Issues of exclusion would also be prioritised. Key research issues include the importance of initial conditions in affecting the growthpoverty reduction nexus; whether growth in the 1990s led to sustained increases in inequality, or whether the relationship reflects specific initial conditions such as low levels of initial inequality or rapid structural transformation46; and the factors that influence the relationship between economic growth and wider human development outcomes. Working with other donors Donor support for economic growth has been inadequate in recent years. DFID will mount an international influencing strategy to increase donor support for growth and to raise the quality and coherence of what is offered. We will also renew our efforts to take a lead on developing international trade agreements that will allow low income countries to benefit from globalisation. The trade agenda is absolutely crucial to the challenge of involving all countries in the benefits of globalisation. We should encourage development of more conducive South-South trade agreements, where there are great gains to be had. Trade is already greatly expanding between Africa, and China and India. We can help by both providing strategic technical assistance and also by encouraging the process at a political level. We will encourage the development of international codes of practice, for example in respect of investment regimes, but also in a number of areas of economic management and regulation. The objective would be to extend best practice to areas such as investment regimes, natural resource revenue management, financial regulation, and competition policy. 46 Besley and Cord (eds.) (2007), Delivering on the Promise of Pro-Poor Growth: Insights and Lessons from Country Experiences, World Bank 24 Working with the private sector DFID should encourage the international private sector to play its part, working alongside the domestic private sector. Key proposals revolve around challenging business to leverage its core business and core skills and competencies to contribute to development. We envisage working with business in six sectors (retail, mobile phones, extractives, financial, infrastructure, and utilities) to develop action plans. Promoting low-carbon growth The issue of how to achieve environmentally sustainable, low carbon growth in developing countries is one that requires new impetus. This involves socio-economic and scientific research, and work with governments and the private sector to take research into practice. International agreements for mitigation and carbon trade need to be refined and implemented. Strategies need to be developed to ensure that new technological innovations are adapted to and disseminated in developing countries. DFID has established a small team tasked with thinking through appropriate policies and instruments to take this agenda forward. Our Commitment In order to achieve the objective of more rapid economic growth, DFID will play a lead role in putting growth for sustainable poverty reduction at the heart of the international development dialogue. It will seek partner country commitment to credible growth strategies, support the formulation and implementation of such strategies, and work with other donors to improve the quality of support that is offered. 25

**Poverty has numerous terminal impacts-by voting neg you lift millions out of poverty around the world by increasing FDI through stronger IPR**

**American Psychological Association**, American Psychological Association, "Effects of Poverty, Hunger, and Homelessness on Children and Youth", 20**09**, https://www.apa.org/pi/families/poverty

What are the current poverty and unemployment rates for Americans? The ongoing economic crisis has negatively affected the livelihoods of millions of Americans. According the U.S. Bureau of Labor Statistics (2012), the unemployment rate is 8.3 percent as of January 2012. Despite the data showing a decline of 0.2 percent from December 2011, the unemployment rate is still high by all accounts, having doubled since the beginning of the recession in December 2007. U.S. Census Bureau data shows that the U.S. poverty rate rose to 15.1 percent (46.2 million) in 2010, an increase from 14.3 percent (approximately 43.6 million) in 2009 and the highest level since 1993. In 2008, 13.2 percent (39.8 million) Americans lived in relative poverty. In 2000, the poverty rate for individuals was 12.2 percent and for families was 9.3 percent. In 2010, the poverty threshold, or poverty line, was $22,314 for a family of four. Over 15 percent of the population fell below this threshold in 2010. The percentage of people in deep poverty was 13.5 percent of all Blacks and 10.9 percent of all Hispanics, compared to 5.8 percent of Asians and 4.3 percent of Whites. While non-Hispanic Whites still constitute the largest single group of Americans living in poverty, ethnic minority groups are overrepresented (27.4 percent African-American; 28.4 percent American Indian and Alaskan Native; 26.6 percent Hispanic, and 12.1 percent Asian and Pacific Islander compared with 9.9 percent non-Hispanic White). These disparities are associated with the historical marginalization of ethnic minority groups and entrenched barriers to good education and jobs. Where is child poverty concentrated? U.S. Census data reveals that from 2009 to 2010, the total number of children under age 18 living in poverty increased to 16.4 million from 15.5 million. Child poverty rose from 20.7 percent in 2009, to 22 percent in 2010, and this is the highest it has ever been since 1993. Racial and ethnic disparities in poverty rates persist among children. The poverty rate for Black children was 38.2 percent; 32.3 percent for Hispanic children; 17 percent for non-Hispanic White children; and 13 percent for Asian children. The National Center for Children in Poverty reports that 17.2 million children living in the U.S. have a foreign-born parent, and 4.2 million children of immigrant parents are poor. It is reported that child poverty in immigrant families is more closely related to low-wage work and barriers to valuable work supports. The Population Reference Bureau (2010) reports that 24 percent of the 75 million children under age 18 in the U.S. live in a single-mother family. The poverty rate for children living in female-householder families (no spouse present) was 42.2 percent in 2010; 7 in 10 children living with a single mother are poor or low-income, compared to less than a third (32 percent) of children living in other types of families. A staggering 50.9 percent of female-headed Hispanic households with children below 18 years of age live in poverty (48.8 percent for Blacks; 31.6 percent Asian, and 32.1 percent non-Hispanic White). Single-mother headed households are more prevalent among African American and Hispanic families contributing to ethnic disparities in poverty. What are the effects of child poverty? Psychological research has demonstrated that living in **poverty has a wide range of negative effects** on the physical and mental health and well-being of our nation’s children. Poverty impacts children within their various contexts at home, in school, and in their neighborhoods and communities. **Poverty is linked with negative conditions such as substandard housing, homelessness, inadequate nutrition and food insecurity, inadequate child care, lack of access to health care, unsafe neighborhoods, and underresourced schools** which adversely impact our nation’s children. Poorer children and teens are also at greater risk for several negative outcomes such as poor academic achievement, school dropout, abuse and neglect, behavioral and socioemotional problems, physical health problems, and developmental delays. These effects are compounded by the barriers children and their families encounter when trying to access physical and mental health care. Economists estimate that child poverty costs an estimated $500 billion a year to the U.S. economy; reduces productivity and economic output by 1.3 percent of GDP; raises crime and increases health expenditure (Holzer et al., 2008). Poverty and academic achievement Poverty has a particularly adverse effect on the academic outcomes of children, especially during early childhood. Chronic stress associated with living in poverty has been shown to adversely affect children’s concentration and memory which may impact their ability to learn. The National Center for Education Statistics reports that in 2008, the dropout rate of students living in low-income families was about four and one-half times greater than the rate of children from higher-income families (8.7 percent versus 2.0 percent). The academic achievement gap for poorer youth is particularly pronounced for low-income African American and Hispanic children compared with their more affluent White peers. Underresourced schools in poorer communities struggle to meet the learning needs of their students and aid them in fulfilling their potential. Inadequate education contributes to the cycle of poverty by making it more difficult for low-income children to lift themselves and future generations out of poverty. Poverty and psychosocial outcomes Children living in poverty are at greater risk of behavioral and emotional problems. Some behavioral problems may include impulsiveness, difficulty getting along with peers, aggression, attention-deficit/hyperactivity disorder (ADHD) and conduct disorder. Some emotional problems may include feelings of anxiety, depression and low self-esteem. Poverty and economic hardship is particularly difficult for parents who may experience chronic stress, depression, marital distress and exhibit harsher parenting behaviors. These are all linked to poor social and emotional outcomes for children. Unsafe neighborhoods may expose low-income children to violence which can cause a number of psychosocial difficulties. Violence exposure can also predict future violent behavior in youth which places them at greater risk of injury and mortality and entry into the juvenile justice system. Poverty and physical health Children and teens living in poorer communities are at increased risk for a wide range of physical health problems: Low birth weight Poor nutrition which is manifested in the following ways: Inadequate food which can lead to food insecurity/hunger Lack of access to healthy foods and areas for play or sports which can lead to childhood overweight or obesity Chronic conditions such as asthma, anemia and pneumonia Risky behaviors such as smoking or engaging in early sexual activity Exposure to environmental contaminants, e.g., lead paint and toxic waste dumps Exposure to violence in their communities which can lead to trauma, injury, disability and mortality

### Case

Case

**TRIPS alone is insufficient to serve as a legal standard, it’s way too ambiguous**

**Halaijan 13**

Dina Halaijan (JD, Brooklyn Law School). “Inadequacy of TRIPS & the Compulsory License: Why Broad Compulsory Licensing is Not a Viable Solution to the Access Medicine Problem.” Brooklyn Journal of International Law. Volume 38, Issue 3, Article 7 (2013). JDN. <https://brooklynworks.brooklaw.edu/cgi/viewcontent.cgi?article=1050&context=bjil>

3. Definitional Ambiguities & Ambiguities in Scope

Ambiguities in the interpretation of TRIPS due to the lack of substantive guidelines or definitions also hinder its effective use by **increasing the risk of litigation.**111 The Doha Declaration merely stated that individual countries have “the right to determine what constitutes a national emergency or other circumstances of extreme urgency” in deciding to grant a compulsory license, and thus did little to ameliorate the different interpretive approaches of developed and developing countries.112 **The flexible scope** of compulsory licenses **lends to abuse which further instills resistance and suspicion** from pharmaceutical companies.113 For example, Egypt’s compulsory license for Pfizer’s Viagra tarnishes the reputation of compulsory licensing because erectile dysfunction is clearly a less dire situation and one likely not intended to be covered by the public health exception of TRIPS.114 Such excessive abuse and over-use of compulsory licensing likely encourages pharmaceutical companies to aggressively resist valid uses of compulsory licenses to prevent **over-expansion of scope.**115 In addition to ambiguity in the scope of intended diseases, conflicting interpretations exist in the type of pharmaceutical products intended for compulsory licensing.116 The scope of countries that should benefit from compulsory licensing remains another area of contention.117 Not limiting the scope of applicable nations may create a **chilling effect** on the types of drugs pharmaceutical companies choose to invest in and develop to avoid the potential for a compulsory license, **which hurts developing nations most in need of help.**118 Interpreting the morality exclusion in Article 27(2) also proves difficult, as **there is no universally accepted definition.**119

## At Accessibility (c1 and c2)

**Reductions in IP do not improve accessibility, and some protections are necessary for balancing public and private interests.**

**Krattiger 13**

Anatole Krattiger,; Adjunct Professor, School of Integrative Plant Science Plant Breed‐ ing and Genetics Section ; September 2013; ”Promoting access to medical innovation”; https://www.wipo.int/wipo\_magazine/en/2013/05/article\_0002.html, WIP Magazine, accessed 7‐29‐2021; JPark

The rationale of the intellectual property (IP) system in general, and the patent system in particular, is to make investment in innovation attractive and to offer a mechanism which ensures that the knowledge contained in patent applications is accessible to soci‐ ety. In this way, it seeks to balance competing private and public interests. Anyone applying for a patent is required to disclose the details of their technology so that the pub‐ lic is aware of, and can eventually use, the knowledge contained in patent documents. Patent information available through public databases, such as WIPO′s PATENTSCOPE, offers useful insights about innovation trends and freedom‐to‐operate, and can help shape patenting and licensing strategies. Data indicate overall long‐term growth in patenting of medical technologies (a sign of renewed investment in this area) and that an increasingly diverse range of public and private users (see Figures 2 and 3), including from emerging economies, are using the international patent system. While the patent system is designed to promote innovation by providing an incentive to invest in R&D, the impact of patents on access to medical technologies is complex and much debated. Just as the existence of a patent need not be a barrier to access, the absence of a patent right does not guarantee effective access. As noted in the WHO′s Framework for Access to Medicines, access to medicines is rarely dependent on a single factor; it also includes rational selection and use of medicines, affordable prices, sustainable financing and reli‐ able health and supply systems, among others. Striking an appropriate balance Striking an appropriate balance between encouraging medical innovation and enabling access to it has been a major preoccupation of policymakers, health activists and the private sector, since the 1990s when concerns about access came to the fore in relation to the treatment of HIV/AIDS in many African countries. The WTO′s Doha Declaration on the TRIPs Agreement and Public Health of 2001, clarified a number of rules specific to IP and helped reassure the global community that IP should not prevent access to the medicines needed in developing countries. Medical technologies are usually very expensive to develop but relatively cheap to reproduce. Without the protection conferred by a patent it would not be financially viable for companies to continue investing in re‐ search, product development and regulatory approval. If competitors could “free ride” on the cost of developing a product and were able to immediately introduce their own versions, the inventor would not get the expected financial returns thereby weakening any incentive to develop new products.

#### Turn- Waiving patents can’t resolve drug access issues but instead create a more dangerous scenario for developing countries. Garde 21

Damian Garde (national biotech reporter for STAT), Helen Branswell (senior writer at STAT covering infectious diseases and global health; former CDC Knight Fellow and Nieman Global Health Fellow at Harvard; recipient of the 2020 George Polk Award for coverage of the Covid pandemic), and Matthew Herper (senior writer at STAT covering medicine). “Waiver of patent rights on Covid‐19 vaccines, in near term, may be more symbolic than substantive.” Stat News. 6 May 2021. JDN. https://www.statnews.com/2021/05/06/waiver‐of‐patent‐rights‐on‐covid‐19‐vaccines‐ in‐near‐term‐may‐be‐more‐symbolic‐than‐substantive/

In October, Moderna vowed not to enforce its Covid‐19‐related patents for the duration of the pandemic, opening the door for manufacturers that might want to copy its vaccine. But to date, it’s unclear whether anyone has, despite the vaccine’s demonstrated efficacy and the worldwide demand for doses. That underscores the drug industry’s case that patents are just one facet of the complex process of producing vaccines. “There are currently no generic vaccines primarily because there are hundreds of pro‐ cess steps involved in the manufacturing of vaccines, and thousands of check points for testing to assure the quality and consistency of manufacturing. One may transfer the IP, but the transfer of skills is not that simple,” said Norman Baylor, who formerly headed the Food and Drug Administration’s Office of Vaccines Research and Review, and who is now president of Biologics Consulting. While there are factories around the world that can reliably produce generic Lipitor, vaccines like the ones from Pfizer and Moderna — using messenger RNA technology — require skilled expertise that even existing manufacturers are having trouble sourcing. “In such a setting, imagining that someone will have staff who can create a new site or refurbish or reconfigure an existing site to make mRNA [vaccine] is highly, highly unlikely,” Yadav said. There are already huge constraints on some of the raw materials and equipment used to make vaccines. Pfizer, for instance, had to appeal to the Biden administration to use the Defense Production Act to help it cut the line for in‐demand materials necessary for manufacturing. Rajeev Venkayya, head of Takeda Vaccines — which is not producing its own Covid vaccine but is helping to make vaccine for Novavax — said supply shortages are impacting not just Covid vaccine production but the manufacture of other vaccines and biological products as well. “This is an industry‐wide ... looming crisis that will not at all be solved by more tech transfers,” Venkayya said. He suggested many of the people advocating for this move are viewing the issue through the prism of drug development, where lifting intellectual property restrictions can lead to an influx of successful generic manufacturing. “I think in this area there is an unrecognized gap in understanding of the complexities of vaccine manufacturing by many of the ‘experts’ that are discussing it,” said Venkayya, who stressed that while he believes they have good intentions, “nearly all of the peo‐ ple who are providing views on the value of removing patent protections have zero experience in vaccine development and manufacturing.” As Michelle McMurry‐Heath, CEO of the trade group BIO, put it in a statement, “hand‐ ing needy countries a recipe book without the ingredients, safeguards, and sizable work‐ force needed will not help people waiting for the vaccine.”

**On covid**

**Investing in manufacturing and distribution is a better anti‐COVID strategy than breaking patents**

**Rogin 21**

Josh Rogin (political analyst for CNN; foreign policy columnist at the Washington Post; B.A. in international affairs from the George Washington University’s Elliott School of International Affairs). “The wrong way to fight vaccine nationalism.” Wash‐ ington Post. 8 April 2021. JDN. https://www.washingtonpost.com/opinions/global‐ opinions/the‐wrong‐way‐to‐fight‐vaccine‐nationalism/2021/04/08/9a65e15e‐98a8‐11eb‐ 962b‐78c1d8228819\_story.html

A preferable approach would be to build more vaccine‐manufacturing capacity in the United States and then give those vaccines to countries in need, said Cohen. The U.S. pharmaceutical industry would surely benefit, but that’s preferable to being dependent on other countries when the next pandemic hits. “If there’s anything that the pandemic has taught us, it’s that we need to have a robust supply chain, for ourselves and for the world generally,” Cohen said. What’s more, it’s not clear that waiving the TRIPS agreement for the pandemic would work in the first place. Bill Gates and others involved in the current vaccine distribution scheme have argued that it would not result in more vaccines, pointing out that licens‐ ing agreements are already successfully facilitating cooperation between patent‐holding vaccine‐makers and foreign manufacturers. Critics respond that such cooperation is still failing to meet the urgent needs in the developing world. Vaccine equity is a real problem but waiving intellectual property rights is not the solution. If the current system is not getting shots into the arms of people in poor countries, we must fix that for their sake and ours. But the pandemic and our responses to it have geopolitical implications, whether we like it or not. That means helping the world and thinking about our strategic interests at the same time.

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#### With weaker IP protections, pharmaceutical companies will resort to trade secrets over patents---that undermines the public scientific collaboration that informs global public health response.

Gewertz, Nevin. "Intellectual Property And The Pharmaceutical Industry: A Moral Crossroads Between Health And Propert." Journal of Business Ethics 55:3. December, 2004. Web. August 18, 2021. <https://www.jstor.org/stable/25123392?seq=1#metadata\_info\_tab\_contents>.

The granting of a United States patent establishes a form of monopoly rights to specific creative works. The granting of exclusive monopoly rights prevents others from enjoying any positive externalities de rived from the idea itself. Yet, does the right to intellectual property include the right to exclude and limit the actions of others? A simple utilitarian analysis of the potential consequences of non exclusive intellectual property elucidates the need for patent rights to incorporate exclusive monopoly rights. **Without exclusive monopoly rights granted to their products, pharma**ceutical **companies would be forced to keep product information a secret**. **The usage of public forums for intellectual dialogue such as academic journals and conferences would give way to trade secrets** (Mansfield, 1993). **This type of secretive behavior would have nefarious effects both the scientific community and the collaborative principles upon which it thrives**. The exclusive monopoly rights rewarded by the state in the form of a patent are necessary to promote intellectual dialogue and to avoid the usage of trade secrets.