

Foreign Direct Investment and Regulatory Uncertainty :  
Failures of the “Make in India” Campaign

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# 1 Introduction

An increasing part of the development strategy of the Government of India (GOI) is to encourage foreign direct investment in manufacturing facilities in India. As part of this strategy the GOI has sought to encourage U.S. and other multinational companies with high-technology capabilities and valuable intellectual property to come and “Make in India”. Over the past several years the “Make in India” campaign and other programs like it, have allowed the GOI to cultivate a veneer of economic liberalization and open market access. However, the reality is quite different, with India imposing price controls, demanding technological transfers, and instituting other manifestations of non-tariff barriers once investments are undertaken. The campaign therefore often amounts to little more than regulatory entrapment. A situation which limits the ability of U.S. manufacturers to effectively access Indian markets or to recover costs associated with innovation and maintenance of intellectual property. The GOI can and must do better if Make in India is to be regarded as anything other than a cynical failure. The U.S. Government, for its part, must apply the same level of scrutiny to the Make in India campaign that it does to promotional programs offered by other emerging competitors like China.

## 2 Foreign Direct Investment in India

The current state of Foreign Direct Investment (FDI) in India is robust, and has strengthened significantly over the past several years. In point of fact, during the 2016-2017 economic year India reported FDI inflows had increased to nearly \$60 billion U.S. dollars—a figure that marks India as one of the top destinations for foreign direct investment in the developing world—and the Royal Bank of India (RBI) expects that total to continue its climb during the current year. In pursuit of an ever greater share of global FDI the Government of India and the Indian Prime Minister Narendra Modi have made impressive strides towards liberalizing

the regulatory framework surrounding FDI<sup>1</sup> with the hope that this will eventually result in sharp growth for the Indian economy as a whole.<sup>2</sup>

However, in order to obtain a larger share of the global FDI pie, India will need to capture or generate a greater share of U.S. outward FDI—which at its current level of \$312 billion<sup>3</sup> is by far the largest source of the world's FDI. India has made a good start towards this objective and the bilateral trade relationship between the U.S. and India already constitutes a large part of overall Indian FDI; U.S. outward FDI in India totaled \$28.3 billion in 2016 (Uni, 2017c). The level of U.S. FDI in India has increased steadily over the past decade, and initiatives from both countries are focused on increasing this investment even further. The current top-level initiative in India, Make in India, is promoting economic growth via FDI in India's manufacturing industry. While it appears that progress has been made towards boosting FDI in the manufacturing sector the majority of Indian FDI inflows still occur in four other sectors: Services, Computer Hardware and Software, Trading, and Construction<sup>4</sup> (Rao and Dhar, 2016).

Despite the significant progress India has made towards establishing an open economy and despite the recognition by both the Indian and U.S. governments that strengthening business ties and investments would benefit both countries (TPF, 2016), the GOI maintains a number of significant barriers to increased trade and FDI (Ranjan, 2008). These barriers to trade—thoroughly documented in the 2017 National Trade Estimate Report on Foreign Trade Barriers (Uni, 2017a)—encompass both tariff and non-tariff structures. The most common non-tariff barriers include but are not limited to: intellectual property expropriation, forced joint ventures, compulsory licensing, and forced technology transfers. Many of

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<sup>1</sup>“The NDA government started the process of relaxing the FDI policies in August 2014. Until October 2016, 18 announcements were made for liberalizing the policies applicable to various sectors.” - Rao and Dhar (2016).

<sup>2</sup>D'sa et al. (1999); Gupta (2006); Ranjan (2014)

<sup>3</sup>Jackson (2017) documents that outward U.S. FDI was \$312 billion dollars in 2016.

<sup>4</sup>The Automobile industry occupies a distant fifth place

the non-tariff barriers have been put in place to limit market access, and foreign firms wishing to gain access to the Indian market must agree to the terms in advance or be restricted from the market. These problems are severe enough that India remains one of 11 countries on the Priority Watch List of the 2017 Special 301 Report compiled by the Office of the U.S. Trade Representative <sup>5</sup> (Uni, 2017b), and as a result of these issues the USTR is currently reviewing India’s status under the Generalized System of Preferences (GSP)<sup>6</sup> (Gillis, 2017; Atkinson, 2012).

An additional result of India’s currently unpredictable regulatory behavior, is the uncertainty it creates for potential foreign investors. Major long term investments are not made instantly, nor are they undertaken without careful economic analysis. Analysis which will certainly incorporate an estimate of the potential effect of unexpected regulatory outcomes for the firm. The very firms that India hopes to woo—those that will build and create innovative products and technology in India—place significant value on a stable and predictable regulatory and legal environment. It is what enables firms to invest heavily to create knowledge capital without fear of expropriation. Capital which firms then use in order to build and sustain a competitive advantage in markets around the world. Without further improvement in India’s regulatory environment, these firms will experience a reduced incentive to continue investing, and making, in India.

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<sup>5</sup>In the 2017 Special 301 Report, the U.S. Trade Representative (UTSR) argues that “India remains one of the world’s most challenging major economies with respect to protection and enforcement of IP. Despite positive statements and initiatives upon which the Modi Administrations has embarked, . . . Innovative companies remain concerned about the potential threat posed to their IP through the possible use of compulsory licensing and patent revocation, [and] also face pressure to localize the manufacture of their products, including due to the Drug Price Control Order and to high customs duties directed to IP-intensive products, such as medical devices, pharmaceuticals, information and communications technology products, solar energy equipment, and capital goods.” -Uni (2017b)

<sup>6</sup>The Generalized System of Preferences (GSP) provides special access to the U.S. market for beneficiary countries that meet 15 congressional eligibility criteria including: respecting internationally recognized workers rights, providing adequate and effective intellectual property protection, and providing the United States with equitable and reasonable market access.

### 3 The Effect of Regulation, and Regulatory Uncertainty, on Foreign Direct Investment

The effect of uncertainty, particularly uncertainty of outcomes, is a well studied area of economics. Seminal work by [Dixit and Pindyck \(1994\)](#) and [Pindyck \(1993\)](#) established that uncertain outcomes can increase the value of a project if the cost of the project is not immediately and fully invested. In other words, as long as the firm retains some flexibility during the investment (e.g. the ability to invest in stages, or to simply withdraw before the entire investment is committed) the options available to the firm have value, and may increase the expected value of the project. This value arises from the firms' ability to delay, or reverse, their investment at a subsequent stage if the projects outlook shifts unfavorably—when the firm invests in stages, they essentially gain the ability to only invest when the probability of a good outcome is the highest.

However, when the uncertainty of outcomes is the result of regulatory uncertainty the calculus changes dramatically. The history of regulating foreign investment is one in which the economic surplus is often expropriated *after* the foreign investor has already incurred the sunk costs required to begin the project. In this case the firm loses the option to only invest when a good outcome is most likely, because the regulatory body may change the set of outcomes after the investments have already been made. If the firm could have foreseen this outcome at an earlier stage they would have delayed or reversed the investment, but once the investment is fully committed the firm is forced into the unfavorable outcome. Thus, if a firms investments are irreversible<sup>7</sup> then uncertainty about future regulatory expropriation exposes the firm to significant risk. This risk weighs only on the potential upside of the project and acts to reduce the expected profit, and the value, of any investment ([Teisberg, 1993, 1994](#)).

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<sup>7</sup>For instance, the firms investment is irreversible if : the firm can be restricted from leaving the market, if there exists no market for the firms assets, or if there is no possibility of recovery of the sunk costs.

Uncertainty about future regulatory expropriation is difficult for governments to reduce—even with the best of intentions—because of the typically large difference between regulatory cycles and an investments life span. Regulatory policy is often as short termed as the regulators that create and enforce the policy, while the assets in place for a major investment have a much longer life cycle<sup>8</sup>. Which means that even if the current government is trying to send a strong signal that it will protect foreign investors from expropriation, the investors can only judge the regulators intentions by the consistency of their previous decisions. Consistency that will be lacking if the regulatory term is short, the government often experiences regime change, or if the regulatory body has different policy objectives under different regimes. [Ergas et al. \(2001\)](#) argue that “if a regulator attempts to signal that it will allow a fair return on sunk costs, but has a reputation of expropriating the surplus generated from other sunk costs, it will find it difficult to convince [a] firm that it will not act in this way once new funds have been sunk.” Thus a history of uncertain and inconsistent regulatory decisions is likely to have a strong negative effect on foreign investment in manufacturing.

## 4 Make in India

In September of 2014, Prime Minister Modi announced a major new policy objective—India wanted to become one of the top destinations for Foreign Direct Investment in the world (FDI), and it wanted to do so by encouraging foreign firms to manufacture their goods in India. The Prime Minister encouraged firms operating in 25 “key” industries<sup>9</sup> to “Come and Make in India” with the goal of ensuring that the manufacturing sector of the Indian economy constitutes 25% of India’s GDP by 2020. As a crucial part of the appeal to foreign investors,

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<sup>8</sup>This difference will be particularly stark when the proposed investments are asset intensive ones, which any manufacturing enterprise set up under the Make in India campaign would need to be ([Karnik and Huang, 2016](#); [Choudhury, 2015](#); [Saluja, 2017](#); [Kalra and Miglani, 2017](#)).

<sup>9</sup>The key sectors are : Automobiles, Automobile components, Aviation, Biotechnology, Chemicals, Construction, Defense manufacturing, Electrical machinery, Electronic systems, Food processing, Information technology and business process management, Leather, Media and entertainment, Mining, Oil and gas, Pharmaceuticals, Ports and shipping, Railways, Renewable energy,Roads and highways, Space and astronomy, Textiles and garments, Thermal power, Tourism and hospitality, Wellness.

the GOI also embarked on a series of liberalization measures for the economy (KK, 2017). At the 2017 Global Entrepreneurship Summit in Hyderabad PM Modi explained, “We have improved on indicators like: getting construction permits, getting credit, protecting minority investors, paying taxes, enforcing contracts, and resolving insolvency” (Lasania and Roche, 2017).

Since the beginning of Make in India, several high profile projects have been touted that suggest the program has begun to gain some traction across a range of different manufacturing enterprises. For instance, shortly after the start of the campaign the U.S. based firm Sun Edison committed \$4 billion to building the largest solar panel plant in India, and the Taiwanese technology manufacturer Foxconn stated that it would invest \$5 billion over a period of 5 years towards a manufacturing plant in Maharashtra (Karnik and Huang, 2016). In the following year Ford and General Motors committed billions towards expanding and building new automobile plants in India, and stated their intention to use their Indian plants to manufacture for both the local, and global, car markets (Choudhury, 2015). In a separate deal, Xiaomi, the privately held Chinese cell phone maker (which is the second largest provider of cell phones to the Indian market) announced that it would start manufacturing it’s phones in India to help supply global demand<sup>10</sup>. Further, in one of the largest and most publicized deals, General Electric partnered with the Indian Railways Ministry to provide \$2.5 billion dollars worth of diesel locomotives to replace the aging Indian rail fleet. As part of the deal the company agreed to build a manufacturing plant in India, with the aim of achieving over 70% local manufacturing for each engine. The investment was hailed as a great success, when GE delivered its first of 1,000 diesel electric locomotives in October of 2017 (Saluja, 2017). Overall, the GOI has reported that FDI inflows in the 20 months following the start of Make in India were 46% higher than in the 20 months preceding the

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<sup>10</sup>Xiaomi is not the only cell phone maker looking to expand manufacturing production into India. Huawei and Oppo, Xiaomi’s main Chinese competitors both have expressed a desire to begin making their phones in India, as has Korean giant Samsung. An Indian firm, Micromax Informatics Ltd. which currently manufactures in China, is looking to move it’s manufacturing back home (McLain, 2015).

program, and many have argued that this is due to the success of the program in soliciting additional FDI.

However, despite the strong initial commitments many of the announced projects have been subject to the sort of regulatory uncertainty, and ex-post expropriation that was discussed in Section 3. In many cases the result has been the delay, or outright cancellation of the projects that were proposed. For instance, two years on from their initial announcements neither Xiaomi nor Foxconn have begun construction on their planned manufacturing plants (NDT, 2017). In several other cases the investment has already been mostly sunk before the effects of regulatory changes began to appear—the classic bait and switch. In one example, General Electric was required to form a joint venture with the Indian Railways Ministry in order to win the contract to provide the replacement diesel locomotives for the Indian rail fleet. However, the Railways Ministry is now proposing to accelerate the shift of the Indian rail fleet to one that is 100% electric, despite their contract with GE to purchase diesel electric engines and *after* GE has made a significant investment to build a manufacturing and maintenance plant in India. An unexpected switch that has caused GE to “[caution] the government that it will incur ‘substantial costs’, deter future foreign investors, and hurt the ‘Make in India’ mission if the Indian Railways alters its \$2.5 billion deal to buy diesel locomotives from the company” (Saluja, 2017).

In some instances the regulatory barrier is more insidious. For instance Lockheed Martin and Boeing, which are both bidding to supply combat jets to the Indian Military, wrote to the Indian Defense Minister in 2017<sup>11</sup> seeking to limit the forced transfer of technology to their local partners<sup>12</sup>. The letter states that:

“Control of proprietary technologies is a major consideration for all companies explor-

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<sup>11</sup>Lockheed and Boeing were not alone, they joined a group of 400 other firms as part of the US-India Business Council in writing the letter.

<sup>12</sup>The Defense Ministry’s Strategic Partnership model requires that foreign original equipment manufacturers (OEMs) can only hold up to 49% of a joint venture with an Indian private firm that will retain majority control of the venture.



ing public and private defense partnerships. To allow foreign OEMs to provide the most advanced technologies, the partnership arrangement between an Indian owned ‘strategic partner’ company and a foreign OEM needs to provide an opportunity for the foreign OEM to retain control over its proprietary technology” (Kalra and Miglani, 2017).

Neither company has reached a deal with the Indian Military while discussions over the potential forced technology transfer are ongoing. Their concerns are not without merit as the GOI has a long history of free riding on the established IP of foreign investors rather than establishing an environment that nurtures and rewards local innovation (Uni, 2017b). Thus, without some sort of governmental guarantee the uncertainty for an investment of this nature is too great. Neither firm is willing to risk giving up market leading technology to a local “strategic partner” who may very well go on to become a global competitor by using their own technology against them.

Finally, there are cases where the regulatory body engages in explicit expropriation like price controls. In the case of Johnson & Johnson, and other drug and medical device manufacturers, the Department of Pharmaceutical (DOP) Ministry of Chemicals and Fertilizers instituted price ceilings in 2016-2017 for certain medical devices. These controls were imposed by the regulator after complaints from local manufacturers about lack of demand for their products. The manufactures pleaded for a price ceiling on the devices and “emphasized that if any differential and higher prices were given to imported stents, that would cause a death blow to the Indian Industry and would be against the spirit of the governments ‘Make in India’ campaign” - Association (2017). The net effect was that high quality, high priced, products were forced to sell at a loss, while low quality, low priced, products enjoyed an artificially increased margin<sup>13</sup> (Brennan, 2017). Additionally the regulator was able to restrict the foreign manufacturers from exiting the market following the imposition of the price ceiling. The DOP now requires six months minimum notice in order for a firm to file a request to exit the market, and even during that six month period all firms have been required to

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<sup>13</sup>The imposition of a regulatory price ceiling means that market risk is unambiguously harmful to a firm’s expected profitability (Ergas et al., 2001).

continue to produce and sell their devices—at a loss if necessary (Vora, 2017; Rajagopal, 2017; Kalra, 2017). Many medical device manufacturers, even ones that currently operate in India, are now delaying or forgoing launch of new products in the market, citing concerns about future price controls and market exit restrictions (Association, 2017; Barnagarwala, 2017).

In each of these cases the breakdown of the project was a result of regulatory failure at several levels. The most troubling being that the regulatory process appears to have been ad-hoc, and the rules were changed after the initial agreements were put in place and the initial investments were already sunk. Even in the cases where the regulation has not been ad-hoc, just the appearance of inconsistent regulation will increase the uncertainty of making any investment decision under the Make in India campaign. Which means that the imposition of trade barriers or ex-post expropriation can only act as a deterrent to future FDI, and the evidence suggests that this has already reduced planned investment. Perhaps more importantly, this history of inconsistent and exploitive regulation will make it more difficult for the government to convince foreign investors that any future investments will not suffer the same fate.

## 5 Conclusion

There is little doubt that India has made meaningful progress towards a full and open economy, and the current government in particular has made great strides towards liberalizing the policies regulating foreign direct investment in the country. It's current objective "Make in India" suggests a strong belief in the Indian economy and labor force, as well as the ability for innovation and manufacturing to improve them. However, much like the rest of the world, India must strike a balance between encouraging investment in innovation, and restricting, or worse expropriating, it. If India is to become an innovator-driven economy, if it is to become a home for world leading technology development and production, then it must

begin to take seriously the concerns of those investors with which it wishes to collaborate. India must offer equitable market access without requiring technological transfers, provide veritable protection for intellectual property without the threat of compulsory licensing, reduce its use of investment reducing price controls, and offer a transparent, predictable, long-term regulatory regime. Without swift change in these areas, the legacy of the “Make in India” campaign is likely to be a disappointing one.

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