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Has Abenomics Succeeded in Raising Japan's Inward Foreign Direct Investment?

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Japan is known to have an exceptionally low level of inward foreign direct investment (FDI). The promotion of inward FDI is one of the policy goals of Abenomics structural reforms. This present paper studies the accumulation of Japan's inward FDI stock during the first 3 years of Abenomics (2012–2015), and finds no evidence that Japan's inward FDI stock increased more than the trend before Abenomics started would have predicted. A comparison of the main policies for promoting inward FDI that have been implemented to the real and perceived impediments to inward FDI reveals that it may be advisable to shift the emphasis of the policy to address more regulatory and administrative issues and to reduce the cost of doing business in Japan.

Key words: abenomics, cost of doing business, economic growth, Japan's inward FDI, regulation

JEL codes: F21, F23, O53

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1. Introduction

Abenomics has entered its fifth year. This is a good time to reflect on which parts of Abenomics have worked, why there has been difficulties in achieving targets, and what adjustments are necessary to ensure that current policy becomes more effective. This present paper focuses on one specific policy in the third arrow of Abenomics: policy to promote inward foreign direct investment (FDI). Promotion of inward FDI was one of the many policies specified in the original growth strategy that was formulated in June 2013 (Headquarters for Japan's Economic Revitalization, 2013). This present paper examines how successful the policy has been and discusses what adjustments are necessary to increase inward FDI and eventually to restore Japan's economic growth.

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The present paper is organized as follows. In the next section, we start by looking at some basic characteristics of Japan's inward FDI. We find that Japan's level of inward FDI is extremely low compared with other advanced economies. If inward FDI contributes to economic growth, a low level of inward FDI implies that it is one of the reasons for Japan's stagnation. Then, the growth policy's attention to inward FDI would make perfect sense. To see this, Section 3 reviews some studies that examine the relation between FDI and economic growth. In general, the empirical evidence for growth enhancing effects of inward FDI is weak, which casts a doubt on the importance of FDI promotion as a growth policy. For Japan, however, there is a plausible argument that suggests that raising inward FDI from their current low level is growth enhancing. Even if inward FDI is growth enhancing, we need to understand what determines the magnitude of FDI and how government policies can influence those factors. Thus, Section 4 reviews some empirical studies on the determinants of FDI, and Section 5 examines the content of Abenomics policy to promote inward FDI. Section 6 asks the question posed by the title of this present paper, namely, has Abenomics succeeded so far in raising Japan's inward FDI by looking at the data on Japan's inward FDI. Section 7 concludes by speculating on the future success of FDI policy in Abenomics.

2. Inward FDI to Japan

Figure 1 shows the (net) stock of inward FDI to Japan and other selected advanced economies as percentages of gross domestic product (GDP) from 2005 to 2015. Japan is clearly an outlier. While the inward FDI stock exceeds 20% in recent years for all the five countries other than Japan, Japan's inward FDI is still below 5% of GDP.

Another way to see the exceptionally low level of inward FDI to Japan is to look at its share in the total inward FDI in the world. Figure 2 shows the inward FDI for the six countries as their shares in the world inward FDI. It has been consistently around 1%. Japan's share in 2015 (0.66%) is indeed below that in 2005 (0.89%), implying that the growth of Japan's inward FDI has been below the world average over the last decade.

One reason why Japan's inward FDI may be lower compared with other advanced economies in Europe and North America is that Japan is geographically located far from many sources of capital that moves internationally. Head and Ries (2005) show, however, Japan's inward FDI is still lower even compared with the expected level of FDI given Japan's geography and size of the economy. Following Head and Ries (2008), they model FDI as the result of managers of one country bidding to acquire production units in another country. In the gravitational version of their model, they assume that the success probability of bids decreases as the distance between the country where the managers reside and the country where the production units are located. Thus, a country that is located far from the locations of management talents would see low inward FDI.

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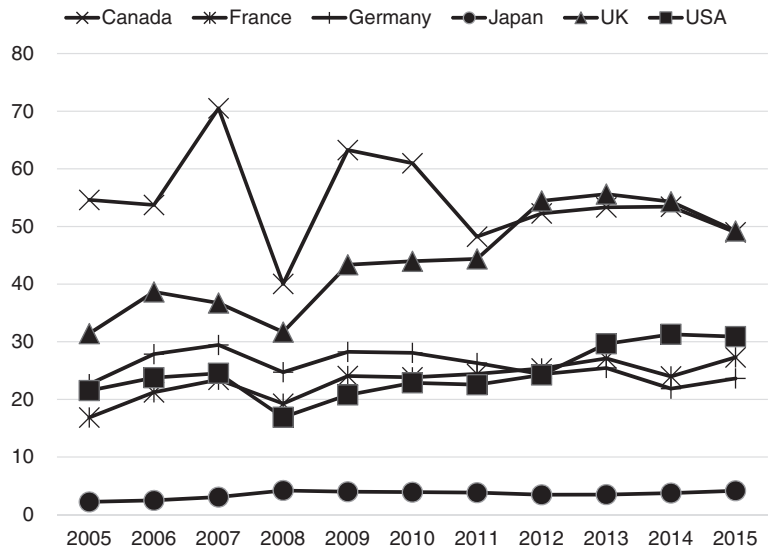

Figure 1 Inward FDI stock (% of GDP) for six advanced economies. FDI, foreign direct investment; GDP, gross domestic product.
Source: OECD *Foreign Direct Investment Statistics* (Accessed 17 June 2017. Available at URL: http://www.oecd.org/investment/statistics.htm).

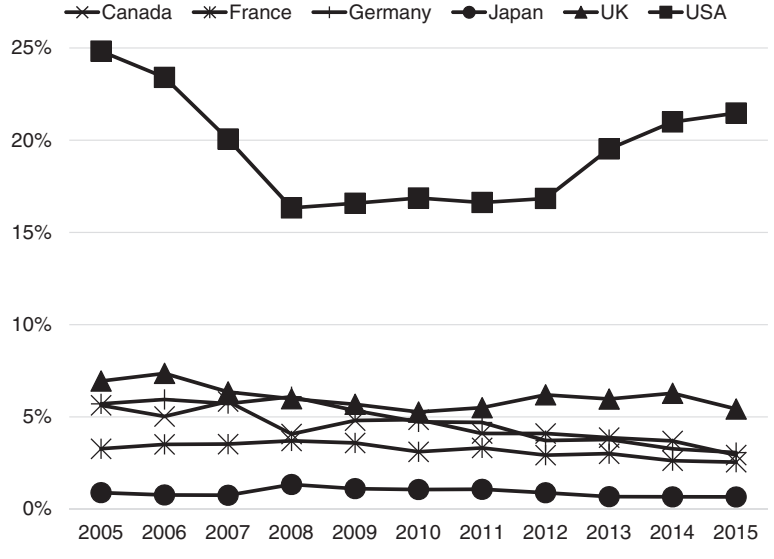

Figure 2 Shares of inward FDI stock in the world total. FDI, foreign direct investment.
Source: OECD *Foreign Direct Investment Statistics* (Accessed 17 June 2017. Available at URL: http://www.oecd.org/investment/statistics.htm).

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Head and Ries (2005) assume that the numbers of managers and production units are both proportional to the size of an economy as measured by GDP. They report the level of Japan's FDI predicted from the model in Figure 10 of their paper. Their figure shows that the model indeed predicts Japan's share in world inward FDI to be low, but it is still around 4%, much higher than the actual level of around 1%.

Figure 3 shows Japan's inward FDI stock by source country. The USA is by far the largest investor to Japan, its contribution exceeding 25% of the total stock in 2015. When the investments from France and Netherlands are added, FDI from the top three countries explains more than half of the total FDI into Japan. Then, Singapore, the United Kingdom, and Switzerland follow. The total FDI from these top six source amounts to more than 80% of Japan's total inward FDI.

The industrial composition of Japan's inward FDI is reported in Figure 4. About 80% of FDI is concentrated in two industries: manufacturing and financial industries. Within the manufacturing sector, about one-third of FDI is in the automobile and other transportation equipment manufacturing, though this is not shown in the figure.

3. FDI and Economic Growth

Japan's inward FDI is very low compared with other advanced economies. If inward FDI has positive impacts on economic growth, Japan's low level of FDI is probably one important factor behind Japan's economic stagnation in the last decades. Then, stimulating inward FDI, as the Abe administration has been trying to do, is a good economic growth strategy.

There is large empirical literature on the impacts of inward FDI on economic growth of the host countries. A comprehensive survey is provided by Contessi and Weinberger (2009) who find that the empirical evidence on the relationship between aggregate measures of FDI and economic growth is mixed. One source of the difficulty in examining the relationship between FDI and economic growth comes from the heterogeneity of countries. FDI may be growth enhancing for some countries, but hurt growth in others. Weinhold and Nair-Reichert (2001) indeed find huge heterogeneity across the 24 developing countries they study. When they allow the coefficient on FDI in a growth regression to differ across countries, they find the coefficient estimates has a distribution with a substantial variance, but a mean close to zero.

Many studies using cross-country data show that inward FDI has a positive impact on the economic growth only when a complementary condition exists. For example, Borensztein *et al.* (1998) analyze cross-country data on FDI flows from advanced countries to developing countries, and find FDI tends to increase economic growth only if the host country has a minimum stock of human capital. Alfaro *et al.* (2004) also use cross-country data and find FDI contributes positively to economic growth only if the host country has well-developed financial markets. Similarly, Balasubramanyam *et al.* (1996) using data for developing countries find that substantially positive contributions of FDI on economic growth are observed only for the countries that adopt an export-oriented (rather than import substitution) trade policy.

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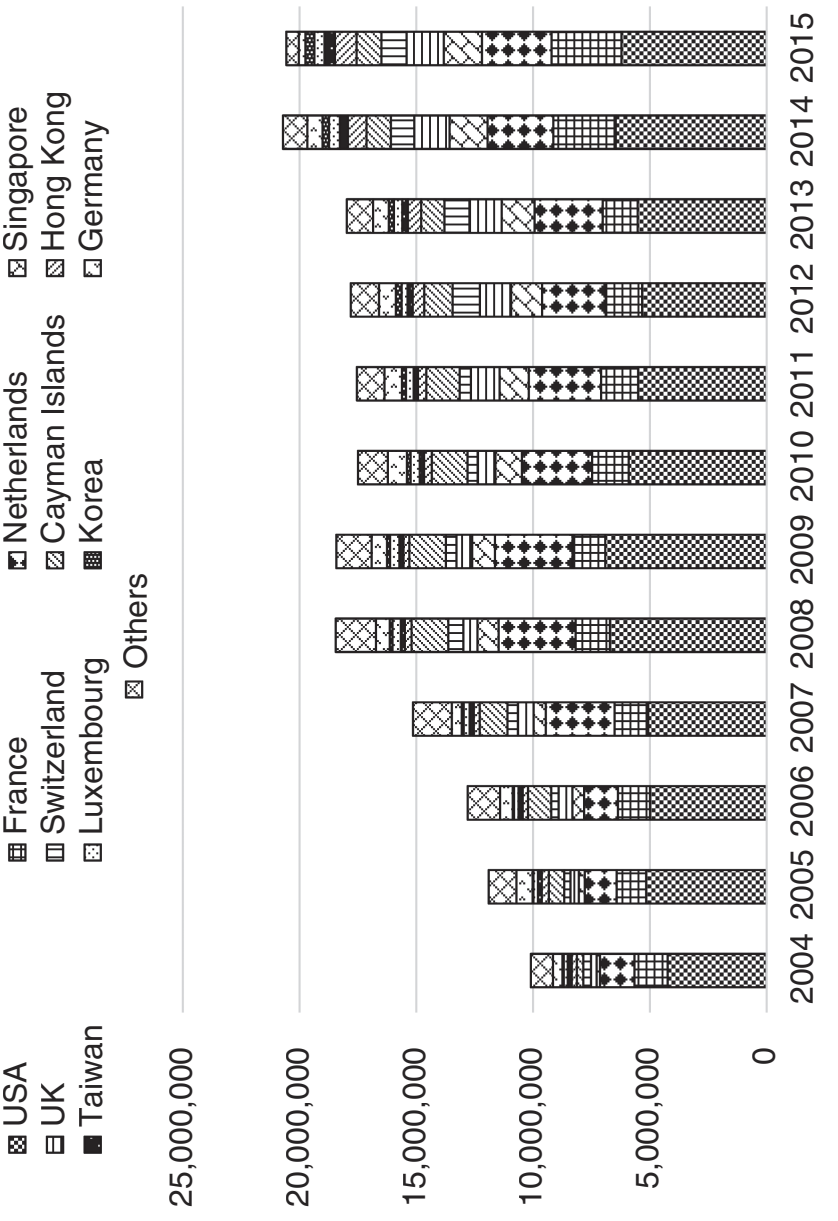

Figure 3 Japan's inward FDI by source country. FDI, foreign direct investment.
Source: OECD *Foreign Direct Investment Statistics* (Accessed 17 June 2017. Available at URL: http://www.oecd.org/investment/statistics.htm).

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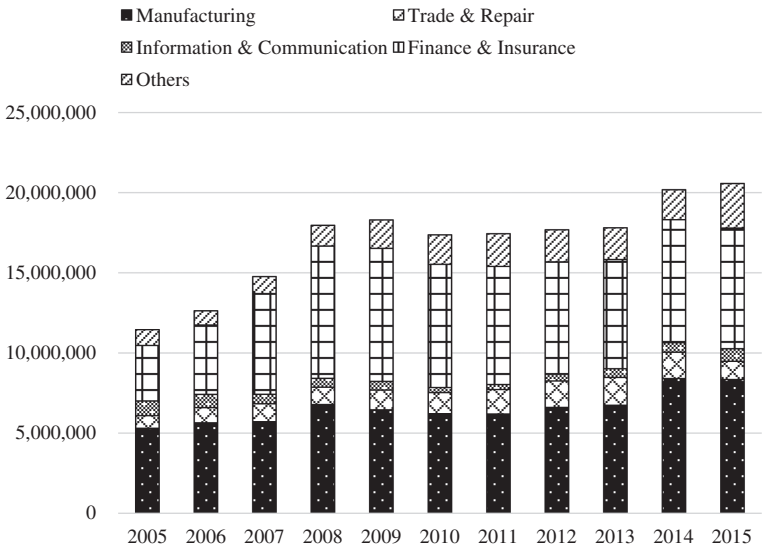

Figure 4 Japan's inward FDI by industry. FDI, foreign direct investment.
Source: OECD *Foreign Direct Investment Statistics* (Accessed 17 June 2017. Available at URL: http://www.oecd.org/investment/statistics.htm)

The cross-country regression framework, however, suffers from two potential problems arising from the endogeneity of both FDI and economic growth, and the presence of country specific effects. Carkovic and Levine (2005) use panel data to address these problems and find that FDI does not lead to higher economic growth. Any positive correlation between the two endogenous variables for some countries is likely to be a result of a third factor that increases both FDI and growth.

The conclusion that "little consensus has emerged as to whether FDI is boon or bane for a country as a whole" (Contessi & Weinberger, 2009; p. 75) does not seem to have changed. More recent surveys such as Deutsche Bank Research (2014) and Baldi and Miethe (2015) also point to the lack of conclusive evidence on a positive impact of FDI on aggregate economic growth.

One potential problem of using aggregate measures of FDI is those add together FDIs in different forms, from different firms, into different industries, and for different corporate motivations. As Deutsche Bank Research (2014; p. 3) points out, "Not all FDI flows are actually productive investments, and not all firms are equipped to benefit from foreign capital and knowledge." Another concern is that the findings reviewed above may not be very relevant for Japan because the samples used in many studies are dominated by developing countries.

One way to address both of these issues is to use firm level data from developed countries. Many of these studies examine the impacts on productivity growth, which is an important source of economic growth.

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Corrado *et al.* (2009) compare the productivities of multi-national corporations (MNCs) and domestic firms in nonfinancial sectors that operate in the USA, and find the productivity growth mostly came from the MNCs. The labor productivity growth of MNCs is estimated to explain more than 70% of the labor productivity growth of the whole nonfinancial sector from 1977 to 2000. Corrado *et al.* define MNCs to include both foreign firms that have establishments in the USA and the US firms that operate also abroad, so their results suggest the productivity benefits of not only inward FDI, but also outward FDI.

Keller and Yeaple (2009) study how FDI influences the total factor productivity of individual firms using panel data on about 1300 US manufacturing firms from 1987 to 1996. They find that a higher share of foreign firms in an industry leads to higher productivity growth of every firm in the industry, suggesting spillover of technology. This spillover effect is found to be larger for high-tech industries, and small firms with low productivity benefit more than large firms with high productivity.

For Japan, a similar study using panel data was conducted by Fukao *et al.* (2005) who use firm level data in the manufacturing sector (where about 40% of inward FDI stock is concentrated as we saw earlier) from 1994 to 2000, and compare the performance of foreign-owned firms to that of domestically owned firms. Fukao *et al.* find foreign firms have higher levels of total factor productivity (TFP) and higher profit rates. This is not only because of foreign firms invest in Japanese firms with high TFP and profits, since they find that acquisition by foreign firms increases the performance of acquired firms subsequently. Thus, the results in Fukao *et al.* (2005) clearly show the positive productivity and profitability impacts of inward FDI, at least for Japan's manufacturing sector.

Criscuolo (2005), who studies the contributions of affiliates of foreign firms to labor productivity for host countries in the Organization for Economic Co-operation and Development (OECD), corroborates Fukao *et al.*'s (2005) results. For the manufacturing firms in 12 countries (Czech Republic, Finland, France, Hungary, Japan, Netherlands, Norway, Portugal, Spain, Sweden, the United Kingdom, and the USA) that Criscuolo (2005) examine, the labor productivities of foreign firms are higher than those of domestic firms, although the difference is small for the USA, Finland, and France. For Japan, foreign firms are about twice as productive as domestic firms after the difference of industrial composition of foreign and domestic firms are taken into account. The contributions of foreign affiliates on labor productivity growth (mainly through the increase of the share of foreign firms) are positive in many countries, suggesting inward FDI increases manufacturing productivity. Together with Spain and Portugal, Japan is an exception having a contribution of foreign firms that is extremely low. This is a result of low presence and low entries of foreign firms in Japan compared with other OECD countries.

Overall, the evidence for the growth enhancing effects of FDI is weak, but this may reflect the difficulty of comparing countries whose economic institutions differ greatly. When firm level data for a single advanced economy such as the USA or Japan is studied, researchers find clearer evidence that inward FDI raises productivity and contributes to economic growth.

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4. Determinants of FDI

Even if inward FDI positively impacts on economic growth, what kind of policy is effective in increasing inward FDI is another question. To examine the effectiveness of Abenomics in increasing inward FDI into Japan, we want to understand the determinants of FDI flows between countries.

A systematic statistical examination of the determinants of FDI was conducted by Blonigen and Piger (2014) who survey eight major studies of the determinants of FDI, identify 56 variables that are potential determinants of FDI, and systematically examine which variables are most important determinants by applying a Bayesian Model Averaging procedure to cross-country data for 2000.

Blonigen and Piger (2014) make several interesting findings about the determinants of patterns of FDI. Here, I list some of those that may be relevant to Japan. First, all the variables in classic gravity models (GDPs and distance) are important determinants of FDI. Some other variables related to GDP or geography are also important determinants of FDI. For example, FDI is high if the source country has a high GDP per capita or the host country is located relatively close to other major economies. Thus, the variables that Head and Ries (2008) focused on in their theoretical model are also empirically important ones.

Second, cultural distance seems to be another important factor that influences FDI. FDI is high when the source and the destination countries share a common language as the official language or if one was formerly a colony of the other. Third, if both countries belong to a common regional trade agreement or a customs union, FDI flows between the countries tend to be higher. They also obtain weak evidence that the trade openness of the host country increases FDI.

Fourth, a few variables that are related to human capital seem to be important determinants of FDI. A high level of human capital in the host country is associated with high FDI into the country. Fifth, high corporate tax rates in the host country discourages FDI.

Sixth, the cost of doing business in the host country or barriers to FDI does not have any power to explain FDI flows. The only variable that may influence FDI is the time required to resolve insolvency. Speedier resolution mechanisms for insolvencies are found to encourage FDI. Finally, bilateral tax and investment agreements, communications infrastructure, financial system, and legal and other institutions do not seem to be significant determinants of FDI once other important factors are taken into account.

One variable that many studies found to be an important determinant of FDI flows, but is not included in the list of potential determinants in Blonigen and Piger (2014) is the exchange rate. This is because the paper focuses on the long-run determinants of FDI decisions. As Goldberg (2009) summarizes, exchange rate fluctuations influence FDIs significantly. A real depreciation of the currency usually leads to an increase in inward FDI. This happens because the depreciation: (i) reduces the cost of production and makes the host country a more attractive location for production; (ii) makes

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foreign investors relatively wealthier so that they can invest more; or (iii) if it corresponds to an appreciation of the relevant foreign currency relaxes the financial constraints that foreign companies face in the credit market. In addition to the level of the exchange rate, the volatility of exchange rate also influences FDI decisions. High volatility of the exchange rate is associated with more FDI because companies have incentive to diversify their production locations.

Kimino *et al.* (2007) examine the determinants of FDI inflows to Japan specifically, and find that some variables that many cross-country studies have found to be important determinants do not influence FDI flows into Japan once source country fixed effects are accounted for. For example, the exchange rate, exchange rate volatility, the borrowing cost differential, and the labor cost differential all lose their power to explain the pattern of FDI inflows (Kimino *et al.,* 2007, Table 3). The only variables that are robust seem to be the gravity model related variables (GDP and distance), exports from the source country, source country risk, and cultural distance. FDI flows into Japan are found to be high when the source country: does not export much to Japan (suggesting FDI and exports are substitutes); has low country risk; and is culturally close to Japan.

The results in these papers on the determinants of FDI suggest that most of the important determinants of FDI are not something the government policy can change at least in a decade or so. These include geographical and cultural distances to, the sizes of the bilateral exports of, and the political risk of source countries, and the remoteness of the host country. The only host country characteristics that are robust determinants of FDI and can be influenced by government policy seem to be workers' skill levels and the corporate tax system. Increasing flexibility of the labor market may increase the availability of skilled workers to foreign firms and eventually encourage more FDI. Similarly, corporate tax reform may also increase the attractiveness of the host country as a destination of FDI.

As we saw in Section 2, Japan's inward FDI is very low compared with other developed economies. Some explanations that focus on Japan specific characteristics have been advanced to explain low level of Japan's inward FDI. As Kiyota (2014, Section 3.2; 2015, Chapter 6 Section 3) argues, however, empirical support for these explanations are weak or nonexistent.

For example, the argument that exclusive arrangements such as *keiretsu* prevent foreign firms from entering Japan, was popular in the 1990s. For imports, Lawrence (1991) finds that import penetration tends to be low in industries that have high shares of *keiretsu* firms. For FDI, however, Lawrence (1993) fails to find such a correlation. Contrary to the view that Japanese *keiretsu* firms collude to exclude foreign firms, some including Weinstein and Yafeh (1995) argue that Japanese *keiretsu* groups may compete among themselves so fiercely to reduce the profit margin of foreign firms so much that they do not find it attractive to enter. They find that the industries that have high shares of *keiretsu* firms tend to have low profit margins. The relation to FDI, however, is not clear.

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Japan's corporate governance is also considered as a potential impediment for foreign firms wanting to invest in Japan. Japan's system of corporate governance has been an insider system with only few outside directors until recently. Compared with the USA and other countries with an Anglo-Saxon system of corporate governance, the influence of shareholders is somewhat limited, too. Though it is plausible that Japan's corporate governance discourages many US and UK firms from entering Japan, there is little empirical evidence for the hypothesis, as Kiyota (2014, 2015; p.168) points out.

One econometric study that finds some important impediments to Japan's inward FDI is Ito and Fukao (2003), cited in Kiyota (2014, 2015). Using industry level data for 1996, Ito and Fukao (2003) find that nonmanufacturing industries with tight regulations on inward FDI or high government ownership tend to have low FDI. This suggests that removing government involvement can be an effective policy to promote inward FDI at least in nonmanufacturing industries. Formal government restrictions on FDI flows in Japan, however, are not high even in nonmanufacturing, according to the FDI Regulatory Restrictiveness Index compiled by OECD. Japan's total index for 2016 is 0.052, which is below the OECD average (0.067) and the USA (0.089). Even back in 1997, the restrictiveness index for Japan (0.079) was already well below the OECD average (0.127). Thus, the impact of loosening the formal regulations may not increase Japan's inward FDI very much.

Although there are not many statistical studies on the impediments to FDI into Japan, Japan's Ministry of Economy, Trade, and Industry (METI) has been asking the affiliates of foreign multinationals that operate in Japan to identify factors that "inhibit business expansion in Japan" in the annual survey in the last several years. Table 1 shows the proportion of respondents that listed each factor as one of the top five inhibiting factors for the 2012 and 2016 surveys.

Table 1 Factors inhibiting business expansion in Japan

Factor	2012 survey (%)	2016 survey (%)
High cost of doing business	78.6	74.6
Exclusivity and distinctiveness of the Japanese market	43.1	46.6
Difficulty securing personnel	34.1	45.7
Strict regulations, permits and license system	36.7	32.1
Complicated administrative procedures	33.7	28.6
Not enough breaks and incentives	21.5	22.8
Concerns natural disasters such as earthquake and tsunami	16.5	17.3
Living environment for foreigners	10.6	9.7
Shortage of information and support services	8.2	8.3
Difficulty securing financing	7.6	6.9
Concerns regarding radiation exposure	11.6	6.4

Source: METI (2012, 2016).

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In both surveys, about 75% of the foreign firms identify the high cost of doing business as an impediment to expand business in Japan. Although Blonigen and Piger (2014) fail to find robust evidence that cost of doing business matters for FDI flows, many multinationals see that as an important factor that limits Japan's inward FDI. According to the World Bank that compiles and publishes indices for cost of doing business every year, Japan is ranked 34th overall among 190 countries (World Bank, 2016). Although 34th is a respectable ranking, it is below the rank of the five other developed countries that are compared to Japan in Figure 1 (UK 7th, USA 8th, Germany 17th, Canada 22nd, and France 29th). Improving the doing business ranking has been actually another goal of Abenomics' structural reform, although it is not related to the goal for inward FDI. As Haidar and Hoshi (2015) pointed out, little progress has been made in reducing the cost of doing business so far.

Other factors that are high on the list include the "exclusivity and distinctiveness of the Japanese market," the "difficulty securing personnel," "strict regulations, permits and license system," and "complicated administrative procedures." Although there is no econometric support for the hypothesis that distinct institutions in Japan such as *keiretsu* are restricting FDI flows into Japan, many foreign firms still perceive those are important inhibitors. The importance of factors such as regulations and administrative procedures is consistent with the result obtained by Ito and Fukao (2003), suggesting deregulation as an important policy tool to promote inward FDI. Finally, the proportion of foreign firms that identify the difficulty of securing personnel increased by more than 10% points from 2012 to 2016. Although this may reflect the general tightening of the labor market in Japan, it also suggests a shortage of the human capital demanded by foreign multinationals is an important impediment to inward FDI.

5. FDI Policy of Abenomics

Promotion of inward FDI has been in the growth strategy of the Abe administration (*aka* the third arrow of Abenomics) from its inception. The original growth strategy published in June 2013 stated:

> The government will develop an environment where all companies and human resources enjoy the benefits of global economy and facilitate full-fledged globalization in Japan in order to attract outstanding overseas manpower and technologies to Japan and to create employment and innovation. It will also aim to double inward FDI stocks to 35 trillion yen in 2020 (17.8 trillion yen at the end of 2012). (Headquarters for Japan's Economic Revitalization, 2013; p. 137).

The numerical target of 35 trillion yen by 2020 is an example of key performance indicators (KPIs), which distinguishes the Abe administration's growth strategy from earlier ones under the Democratic Party of Japan (DPJ) administrations (2009–2012). KPIs are the targets that are established for each set of major policies in the growth

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strategy to "enable objective, routine, and comprehensive evaluation of policy outcomes" (Headquarters for Japan's Economic Revitalization, 2013; p. 11). Although the KPIs for many policies areas are vague and/or the target dates are set far into the future, the KPI for promotion of inward FDI is an exception. The KPI is clearly numerical and the target date is set at 2020, 7 years from when the policy started. The initial level (2012) of the inward FDI stock was 17.8 trillion yen, but it rose to 24.4 trillion yen in 3 years (by 2015). At this rate, the FDI stock in 2020 will increase to $35.4 trillion, just enough to achieve the goal of 35 trillion yen.

Although the policy to promote inward FDI into Japan may appear successful, Figures 1 and 2 suggest that the inward FDI stock in Japan remains extremely low compared with other advanced countries and has not shown any sign of improvement even after the Abenomics policy started. This makes one wonder that the KPI for inward FDI is likely to be achieved only because the KPI was set at a level that was expected to be reached regardless of the success of policies. Thus, a real question is whether the policy has raised FDI more than FDI would have increased without the policy intervention.

Before we try to compare the path of inward FDI to a counterfactual path that would have been observed without the policy intervention, let us look at the content of the Abenomics policy to promote inward FDI.

The policy initiative that explicitly targets the promotion of inward FDI in Abenomics started with the creation of the Expert Group on Foreign Direct Investment in Japan. This group of seven policy makers, practitioners, and academics, was chaired by Shujiro Urata, an economics professor at Waseda University. The group invited and heard from many executives of foreign companies that operate in Japan to identify important impediments to foreign direct investment into Japan. This resulted in Expert Group on Foreign Direct Investment in Japan (2014).

The report recommended several policies to remove or reduce those impediments to increase FDI into Japan. First, the group called for reducing the substantial differences between the Japanese system and the global system in several areas including: (i) the corporate tax system; (ii) the employment system; (iii) corporate governance; (iv) the system for corporate mergers; and (v) various regulations and administrative procedures. Second, the group also pointed out the importance of promoting intergovernmental agreements including economic partnership agreements, social security treaties, and tax treaties. Third, improving living conditions for foreigners in Japan was also considered important for attracting more FDI. Fourth, the group recommends expanding support and preferential treatments of foreign firms entering Japan that are provided by Japan External Trade Organization (JETRO), the central government, and local governments. Finally, the report emphasized the importance of the efforts by the Prime Minister and other state ministers to promote the appealing aspects of Japan that are "not sufficiently understood." The report also identified the issues encountered by foreign firms in some particular industries including health care and pharmaceutical, dairy, food processing, energy, tourism, and retail.

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Also in April 2014, the government set up the ministerial-level Council for Promotion of Foreign Direct Investment in Japan (CPFDI henceforth), which is expected to work as the headquarters for FDI promotion to Japan. The CPFDI published "Five Promises for Attracting Foreign Businesses to Japan" and declared that the government would: (i) make it easier to live in Japan without Japanese language skills; (ii) have free public Wi-Fi access points everywhere in Japan; (iii) make it possible to have business jet access at any regional airport in Japan with short advance notice; (iv) enrich the educational environment for children from overseas and ensure Japanese students can communicate in English; and (v) establish an "Investment Advisor Assignment System" that provides foreign business direct access to state ministers of Japan (CPFDI, 2015).

The fifth promise of the investment advisor assignment system was implemented in January 2016. Under this system, qualified foreign companies that invest in Japan are assigned to state ministers who "act as advisors" to the companies. Companies must meet certain conditions to be designated. First, the amount of their direct investment must exceed 20 billion yen, and they must hire 500 or more regular employees in Japan. Second, the company's business must fit one of the themes listed in the Strategic Market Creation Plan of the original growth strategy in 2013: (i) extending the nation's "healthy life expectancy";, (ii) realizing clean and economical energy demand and supply; (iii) building safe, convenient, and economical next-generation infrastructures; and (iv) building regional communities that use their unique local resources to appeal to the world. Finally, the company must be expected to "contribute to the invigoration of the Japanese economy through the introduction of new business models into Japan, R&D activities regarding cutting-edge technologies and/or other ways" (CPFDI, Task Force for Promotion of Foreign Direct Investment in Japan, 2016).

In April 2016, nine foreign companies (seven from the USA, one each from France and the Netherlands) were selected and assigned to state ministers. IBM, 3M, DuPont, Micron Technology, and Air Liquide were assigned to State Minister of Economy, Trade and Industry, and Johnson & Johnson, Pfizer, Royal Philips, and Merck were assigned to State Minister of Health, Labor and Welfare.

Compared with the report by the expert group, the Five Promises are mostly on improving living conditions for the foreigners and do not touch on the issues on harmonization to global standards, inter-governmental agreements, or regulatory and administrative issues. Since regulatory and administrative problems seem to be important factors that prevent many foreign firms from expanding their operation in Japan as we saw in Section 4, the lack of focus on those issues casts doubt on the effectiveness of the policy. Regulatory and administrative issues also occupy top positions in the list of inhibitors perceived by foreign multinationals. In contrast, living environment for foreigners is low on the list in Table 1. In May 2016, the CPFDI put together a more comprehensive set of policies and announced that as "Policy Package for Promoting Foreign Direct Investment into Japan to Make Japan a Global Hub." The policies are grouped into two sets of measures. The first includes the measures to attract foreign companies to Japan. These include: (i) communication and Public Relations

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(PR); (ii) attempts to connect foreign companies to Japanese Small and Medium Enterprises (SMEs); and (iii) promotion of investment into regional areas in Japan. The second set of policies includes: (i) improving regulations and administrative procedures; (ii) attracting and fostering globally competitive human resources; and (iii) improving the living environment for foreign nationals.

The "policy package" includes the idea of improving regulations and administrative procedures, which was a major emphasis of the expert group report, although it is just one of the many policies. Following this renewed interest in regulatory and administrative reform, the Working Group for Revising Regulations and Administrative Procedures was formed by the Council, which published "Immediate Report" in December 2016 and proposed some measures to fix the regulatory and administrative issues that foreign companies face in Japan. The report suggests several concrete policies to: (i) mitigate the issues in incorporation and registration of companies; (ii) reduce the problems in establishing legal residency; (iii) create one-stop administrative services; and (iv) remedy the lack of information in foreign languages.

6. Has Abenomics Succeeded in Raising Japan's Inward FDI?

To answer the question whether or not Abenomics has succeeded, we need to compare the actual level of inward FDI to the level that would have been realized if the policy was not in place. Here, we consider two simple counterfactuals to evaluate the effectiveness of the policy.

The first counterfactual scenario is that the FDI stock would have followed the trend implied by a constant growth rate. The solid line in Figure 5 shows the FDI stock from 1996 to 2015 in natural log scale. The dotted line connects the 2012 value of the FDI stock and the 35 trillion yen target in 2020. From 2013 to 2015, the actual FDI stock has followed the dotted line very closely. The higher of the two broken straight lines shows the trend line that connects the 1996 value and the 2007 value. Thus, the trend line shows how large the FDI stock would have been if it had continued to grow at the average growth rate between 1996 and 2007. The trend implies the FDI stock would grow to about 78 trillion ($e^{11.26}$) yen by 2020, more than double the Abenomics goal of 35 trillion yen. The actual FDI stock has been well below this trend line. The lower broken line shows the path that FDI would have followed if it grew at the 1996–2007 average growth rate starting from the 2012 level. This assumes the period between 2007 and 2012, when FDI did not grow very much, was a "lost" period and the trend restarted in 2012. Even with this trend at lower level, the FDI stock in 2020 would be about 52 trillion ($e^{10.85}$) yen, much higher than the target. The actual FDI stock has been below this trend line. Thus, if this trend line is a reasonable counterfactual, we do not find any evidence that suggests Abenomics' FDI policy has been successful. The increase of the FDI stock from 2012 to 2015 is what would have been expected if inward FDI returned to its normal trend after the stagnation following the Global Financial Crisis (GFC).

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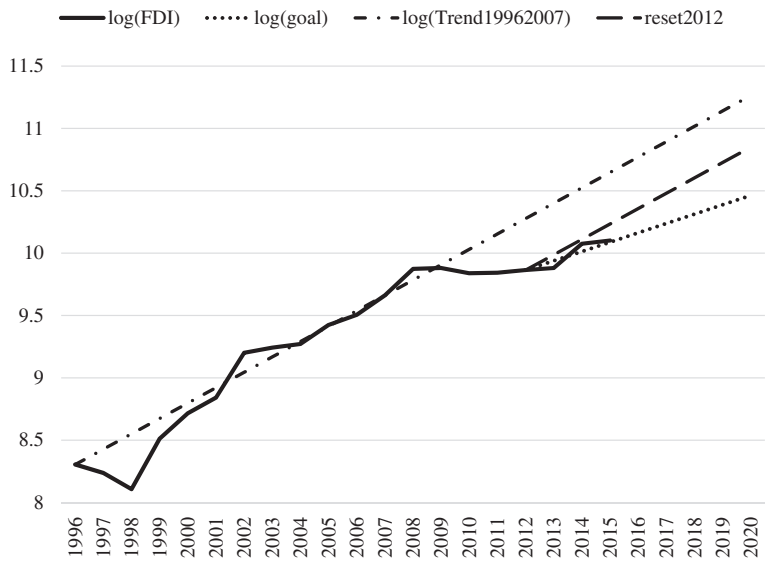

Figure 5 Inward FDI: abenomics goal, actual level, and trend. FDI, foreign direct investment.
Source: Bank of Japan, *Balance of Payments Statistics* (Accessed 17 June 2017. Available at URL: http://www.boj.or.jp/en/statistics/br/bop_06/index.htm/).

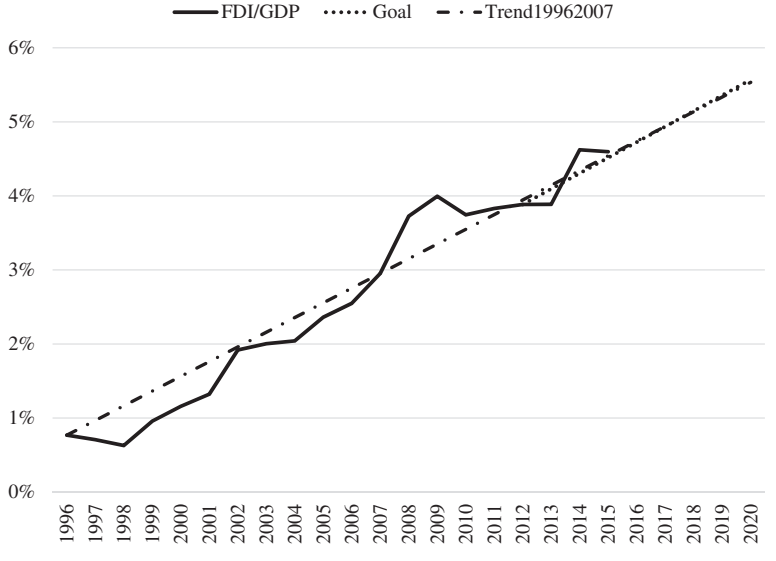

Figure 6 FDI/GDP ratio: abenomics goal, actual levels, and trend. . FDI, foreign direct investment; GDP, gross domestic product.
Source: Bank of Japan, *Balance of Payments Statistics* (Accessed 17 June 2017. Available at URL: http://www.boj.or.jp/en/statistics/br/bop_06/index.htm/).

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The second counterfactual scenario assumes a constant trend growth rate for the FDI to GDP ratio. The solid line in Figure 6 plots the FDI stock divided by GDP from 1996 to 2015. The dotted line again connects the 2012 value of the FDI/GDP ratio and the target ratio in 2020. To calculate the target FDI/GDP ratio, we need the value of target GDP in addition to the 35 trillion yen target for FDI. We use 628.472 trillion yen, which is the level of nominal GDP in the fourth quarter of 2020 that would be achieved if Japan is able to grow at an annual rate of 3% as Abenomics initially hoped. The straight broken line again extrapolates the 1996–2007 trend. In Figure 6, the "goal" line and the trend line are almost on top of each other. The FDI/GDP ratio has been increasing and it seems to be on track to achieve the target, but this would have happened without any policy changes if FDI/GDP ratio just followed the pre- GFC trend. Here, the 2012 value of FDI/GDP ratio is very close to the pre-GFC trend, suggesting the trend growth of FDI/GDP does not seem to have experienced a break around the GFC.

The simple hypothesis that Abenomics has changed the trend of the FDI/GDP ratio can be tested more formally by estimating the following simple regression model.

$$\frac{\mathrm{FDI}_t}{\mathrm{GDP}_t} = \beta_0 + \beta_1{}^{*} Time_t + \beta_2{}^{*}\mathrm{Abenomics}_t + \beta_3{}^{*}\mathrm{Abenomics}_t{}^{*}\mathrm{Time}_t + \varepsilon_t, \quad (1)$$

where, *Time* is a time trend that takes the value 1 in 1994 and grows by 1 every year, *Abenomics* is a 0–1 dummy variable which takes the value 1 for the Abenomics years (year 2013 and thereafter) and 0 otherwise, β_j are parameters to be estimated, and $\varepsilon_t$is an error term. By estimating the regression model (1) and looking at the estimates of β_2 and β_3, we can test if Abenomics policy (or other permanent changes that happened to take place also in 2013) changed the level (β_2) and the trend growth rate (β_3) of the FDI/GDP ratio.

Equation (1) was estimated by ordinary least squares using annual data from 1996 to 2015, and the results are reported in Table 2. As one would expect from Figure 6, there is a statistically significant time trend for the FDI/GDP ratio, that is, β_1 is not zero. In fact, the estimate of β_1 suggests that the FDI/GDP ratio grew by 0.24% points

Table 2 Regression analysis of the impacts of abenomics policies on FDI/GDP ratio

Explanatory variable	Coefficient estimate (standard error)
Constant	−0.360 (0.162)
Time	0.239 (0.013)
Abenomics	−2.739 (4.038)
Abenomics × time	0.117 (0.192)
Adjusted R^2	0.961

Note: This regression analysis uses annual data from 1996 to 2015. The numbers in the parentheses are standard errors. FDI, GDP,

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per year during the sample period. The estimates of β_2 and β_3 are both individually statistically insignificant, suggesting there was no shifts in either level or the trend growth rate of the FDI/GDP ratio in 2013. More formally, the F-statistics for the Wald test of the null hypothesis $\beta_2 = \beta_3 = 0$ is 1.104 with a *P*-value of 0.356. That is, we cannot reject the null hypothesis that both coefficients are jointly zero at any reasonable significance level. Thus, there is no evidence that the Abenomics' policy had an impact on the FDI/GDP ratio.

The analysis of Figures 5 and 6 suggests that the observed increase in Japan's inward FDI under the Abe administration is not much different from what we would have expected from the past trend. This result is corroborated by the simple fact that the share of Japan's inward FDI stock in the world stock has not increased and Japan has failed to close the gap with other advanced countries. This is clearly shown in Figures 1 and 2. Thus, there is no evidence (so far) that the Abenomics policy has raised inward FDI above the trend line. In this sense, we cannot say that the FDI policy in Abenomics has been successful. Japan may achieve the target of 35 trillion yen inward FDI by 2020, but this is not because new FDI policy has been successful, but because the target was not set high enough to require any successful new policies.

7. Conclusion

This present paper examines the policies implemented to promote inward FDI to Japan, which is one of the many policies in the third arrow of Abenomics. The policy to promote FDI has a clear numerical KPI to increase the inward FDI stock to 35 trillion yen by 2020. From 2012 to 2015, Japan's inward FDI increased from 19.2 trillion yen to 24.4 trillion yen. At this rate, Japan seems to be able to achieve this target.

Hitting the target, however, does not necessarily imply the success of the policy, because the indicator may have hit the target even without the policy. For the inward FDI stock in Japan, the increase indeed seems what would have happened even without the introduction of any of the new policies in Abenomics. Thus, we cannot say Abenomics FDI policy has been successful. The answer to the title of this present paper is "No."

As of the time of writing, we still have more than 3 years till the end of 2020. The lack of a clear impact of the policies may just reflect that not enough time has passed to evaluate these policies. It is possible that the policies in Abenomics will eventually push Japan's inward FDI above the trend and contribute to economic growth. To do this, however, the government will need to focus more on regulatory and administrative reforms to remove impediments to the business expansion of foreign firms in Japan. The literature on the determinants of FDI that we reviewed in Section 4 suggests that these are real issues. The policies of CPFDI so far have emphasized increasing the recognition of Japan brands and improving the living conditions of foreigners in Japan. The living conditions of foreigners are indeed one of the perceived inhibitors, but its importance is low compared with regulatory issues or the cost of doing business in Japan.

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It may be possible to increase Japan's inward FDI even if the policies of CPFDI turn out to be ineffective, because Abenomics includes some other reforms that could end up increasing inward FDI. For example, a focus of Abenomics policy has been increasing tourists from abroad. Tomohara (2016) finds interesting spillovers from increased tourism and inward FDI beyond the tourism-related sectors such as restaurants and hotels. Success in tourism promotion may lead to increased inward FDI, too.

Another Abenomics reform concerns the corporate tax rate, which is one of the variables used by the World Bank in evaluating the cost of doing business. A gradual cut of corporate tax rates has already started in 2016, and this may eventually lead to more inward FDI.

At a more general level, improving the cost of doing business ranking has been one of the KPIs in Abenomics. If the cost of doing business, which is the most important perceived impediment to inward FDI, is reduced, this will increase FDI. Here, the prospects are not very promising. Haidar and Hoshi (2015) show that there are many simple reforms that the government can introduce to improve the doing business ranking, but many of those have not been implemented. When the policy to improve the rank was formulated in 2013, Japan was ranked 24th, but Japan's rank has slipped to 34th since then.

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