

Policy Note: what drives Foreign Direct Investments in Indonesia?

*The World Bank*¹ (August 2017)

This note identifies some of the main determinants of foreign direct investments (FDI) to Indonesia, focusing in particular on the role of economic policies. To that end it develops a novel empirical analysis on the effects of various provisions in Indonesia's Negative Investment List (DNI) on planned FDI inflows. It also assesses the impact of Bilateral Investment Treaties (BITs) and specific trade policy actions on FDI inflows to Indonesia. The results suggest that restrictions on foreign equity limits, investment locations, on the size of investors and the types of licenses required all deter planned FDI, with the first two having the strongest effects. The analysis also suggests that terminating a BIT reduces substantially FDI inflows from the affected country and that trade policy can also play an important role in attracting FDI. On the basis of the results of the analyses and the existing empirical evidence, the note draws some policy suggestions to increase FDI inflows to Indonesia.

Introduction

1. **With faltering private sector investments, foreign direct investments (FDI) are increasingly important to enable Indonesia to achieve the ambitious objective of 5.6% GDP growth rate in 2018.** The importance of FDI has been a recurrent theme throughout Indonesia's modern history, with observers as early as in the early 1970s noting that foreign capital was needed to close not only the foreign-exchange gap but also the savings gap.² Besides providing a key source of capital, FDI can also bring about benefits in terms of access to new technology, markets, managerial skills, inputs and products. As all types of investments, also FDI have to be managed properly to ensure the benefits they bring about offset their related costs, such as environmental and social externalities.³
2. **While FDI inflows to Indonesia have been increasing in recent years, they still represent a relatively small share of GDP** (Figure 1). Their share in GDP hovers around 2% and 3% according to Bank Indonesia and BKPM data respectively.⁴ This share is still considerably lower than other regional comparators, including Vietnam, Malaysia and Thailand. While Indonesia's stock of inward FDI as a share of GDP has been catching up, it is still lower than what would be expected given Indonesia's per capita GDP and the GDP-FDI relation across

¹ Prepared by Massimiliano Cali (Corresponding author: mcali@worldbank.org) and Taufik Hidayat. The authors thank Hazmi Shidqi for excellent research assistance.

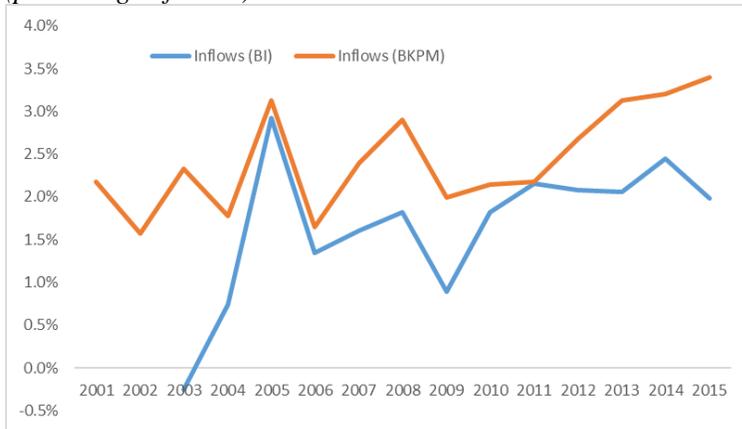
² Strout, Alan M. 1973. 'Foreign Capital and Indonesian Economic Growth'. *Bulletin of Indonesian Economic Studies* 9 (2): 77–90.

³ For example according to Koehler ('Wood Processing in East Kalimantan: A Case Study of Industrialisation and Foreign Investment in Indonesia'. *Bulletin of Indonesian Economic Studies* 8 (3), 1972), foreign investors reaped excessive short-run profits without paying full economic rents for long-run exploitation of East Kalimantan's forest resources.

⁴ The difference is due to different definitions of FDI between the two institutions in terms of the sectoral coverage, share of investments detained by a foreign national or company and instrument used to invest (capital market vs. real sector investments).

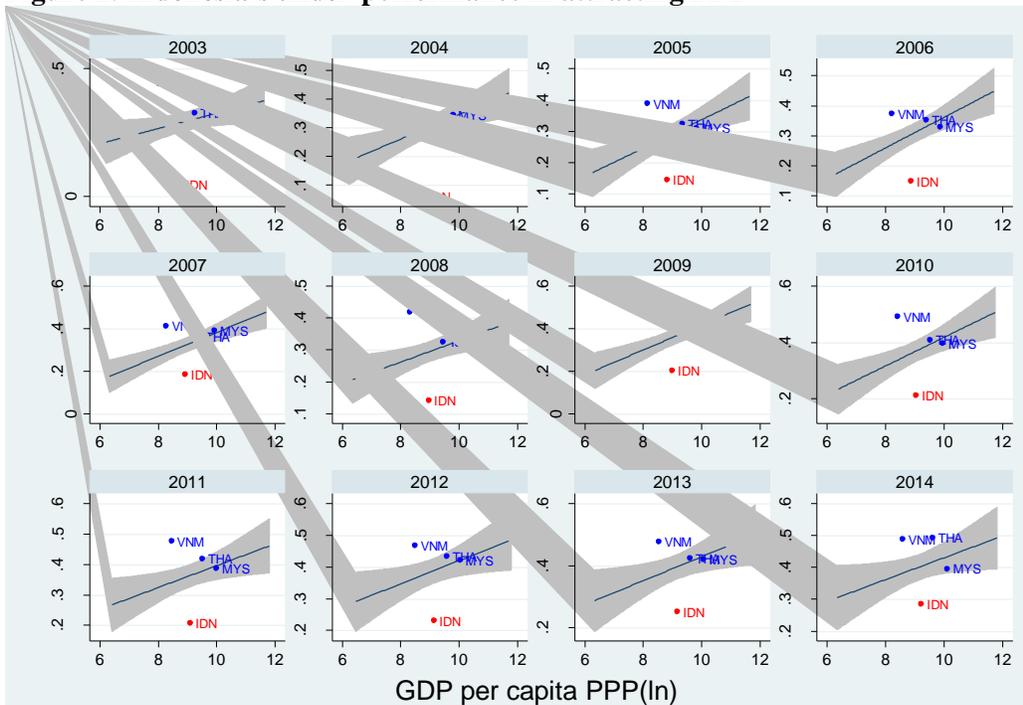
countries (Figure 2). This contrasts with Vietnam and Thailand, whose shares of FDI stock in GDP have been consistently higher than what their GDP per capita would suggest (given the GDP-FDI relation across countries), and Malaysia, whose share is in line with the expected level. This suggests that there exists much room to increase Indonesia's FDI inflows. Identifying what Indonesia can do to increase FDI inflows requires to understand what determines the FDI pattern in Indonesia, which is what this note tries to do in the next sections.

Figure 1: FDI inflows to Indonesia, 2000-15
(percentage of GDP)



Source: BKPM and Bank Indonesia

Figure 2: Indonesia's under-performance in attracting FDI

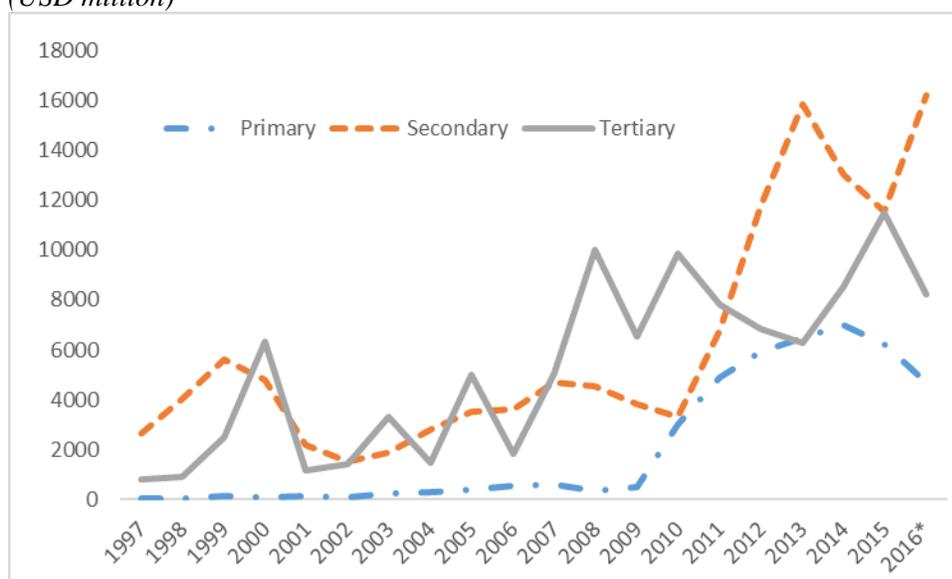


Source: World Bank staff estimates on the basis of UNCTAD (for FDI data) and World Development Indicators (for GDP data).

Recent trends in sectoral FDI

- Part of the increase in FDI inflows in recent years has been driven by FDI in primary sectors, particularly mining and plantation agriculture** (figure 3). These investments were largely driven by high international prices and have played a key role in Indonesia especially during the latter part of the commodity price boom. The sectors are usually capital intensive, such as mining, oil and gas, and the investments are typically carried out by large transnational corporations.

Figure 3: FDI inflows to Indonesia across sectors, 1997-2016
(USD million)



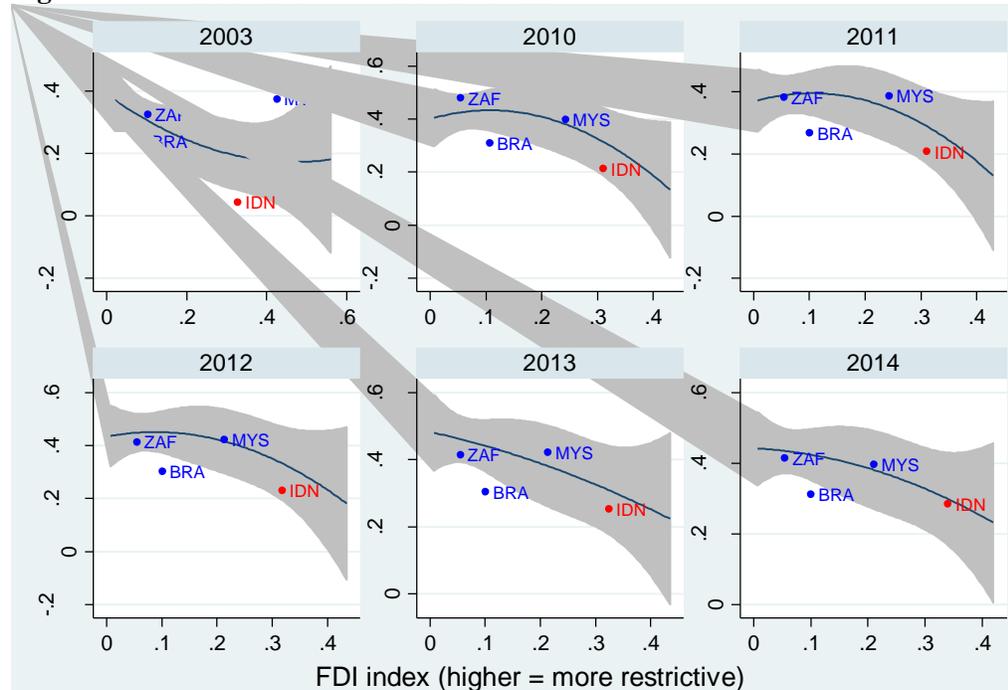
* Preliminary. Source: World Bank staff estimates on the basis of BKPM data

- While external market conditions are a key driver for these resource seeking FDI, an adverse domestic policy environment can still deter these investments.** In Indonesia the recent ban on iron ore exports is a case in point and may help explain the drop in primary FDI, which was mainly driven by mining investments. Given the model of foreign investments in the mining sector to export raw commodities, the ban has likely affected the expected returns of some foreign investors.⁵
- Domestic policies are likely to play an even more important role in attracting FDI in secondary and tertiary sectors and Indonesia has much room to improve in this area.** These investments are typically seeking markets for their products and/or increased efficiency of production. These investments represent the bulk of FDI in Indonesia, further highlighting the importance of the domestic policy environment to attract FDIs. This is confirmed by the fact that across countries the stock of inward FDI as a share of GDP decreases as the restrictiveness of the FDI policy regime increases (Figure 4). The FDI/GDP ratio for Indonesia is in line with that predicted by this FDI-policy restrictiveness relation given its degree of FDI restrictiveness. The latter is higher than other middle income countries like Malaysia,

⁵ In the quarters just before and after the ban net FDI recorded in the Balance of Payment were very close to zero with a dramatic quarter-on quarter as well as year-on-year drop.

South Africa and Brazil. These countries have higher FDI-GDP ratios and lower level of restrictiveness than Indonesia, suggesting much room for Indonesia to improve its attractiveness to FDI through policy changes.

Figure 4: FDI stock and FDI restrictiveness



Note: The FDI Index is computed by the OECD and consists of four types of measures discriminatory towards FDI: equity restrictions, screening and approval requirements, restrictions on foreign key personnel, and other operational restrictions (such as limits on purchase of land or on repatriation of profits and capital). Non-discriminatory measures are also included when they are burdensome for foreign investors, such as for rules regarding nationality of key personnel/directors. Source: World Bank staff elaboration on the basis of UNCTAD, World Development Indicators and OECD data.

The role of economic policies in FDI to Indonesia

- Indonesia's experience in the last three decades confirms the importance of economic policy in attracting FDI.** The bold deregulation of the first half of the 1980s with measures such as the replacement of non tariff barriers with more transparent, equivalent tariffs and the removal of on major import monopolies, associated with an eightfold increase in approvals of investments by BKPM between 1986 and 1990, with an increasing proportion intended for exports.⁶ This is in line with the evidence from emerging economies that maintaining market-friendly, liberal trade and investment policies increases the attractiveness of the host country to FDI, as that enables investors to participate in global and regional production networks.⁷ Other subsequent measures associated with increased planned FDI inflows included allowing

⁶ Pangestu, Mari, and Manggi Habir. 1990. 'Survey of Recent Developments'. *Bulletin of Indonesian Economic Studies* 26 (1): 3–36 and Parker, Stephen. 1991. 'Survey of Recent Developments'. *Bulletin of Indonesian Economic Studies* 27 (1): 3–38.

⁷ That is particularly important for Asia relatively to investors from other emerging economies, as highlighted in Kenyon et al. (2014) 'New Voices in Investment: A Survey of Investors From Emerging Countries', World Bank.

foreign investors to float shares on the Jakarta Stock Exchange (1993) and increasing foreign equity ownership limits in various sectors (1994).⁸

7. **The investment law of 2007 has allowed 100% foreign equity ownership across the board and has tried to increase transparency by mandating that all investment restrictions be included in a single presidential decree – the negative investment list (DNI).** This change aimed to facilitate investments by increasing the openness to FDI, the transparency on the process of investment application and the access to information for perspective investors. While the introduction of the DNI was greeted favorably by investors, the DNI has been revised frequently (in 2010, 2014 and 2016), with each revision changing several rules of the game for domestic and foreign investors. Also, bottlenecks for investments remained in the implementation stage through local governments' and line Ministries' regulations.⁹ In the absence of a systematic empirical analysis, one cannot properly assess the impact of the DNI changes on FDI.
8. **Sectoral laws and regulations and local regulations continue to set restrictions to investments thus undermining the ability of the DNI to provide clarity to investors as the single legal source of investment restrictions.** Investment restrictions continue to be set out in sectoral laws which have higher legal standing than the DNI and are in some cases more restrictive, such as the horticulture and mining laws. Even lower level ministerial regulations do also introduce restrictions to investments above and beyond those in the DNI thus generating confusion among investors on the rules to follow.¹⁰ Also, bottlenecks for investments have remained through local governments' regulations, which often set policies that restrict investments further than national investment policies.¹¹ While the central government has sought to limit some of these bottlenecks by scrapping problematic bylaws issued by local governments, a recent decision by the Constitutional Court makes now this option unviable, potentially increasing the inconsistency between central and local regulations.¹² The complexity of having the restrictions in several places and not easy to find, needing sophisticate lawyer services to ensure all regulations are complied with, makes investments more cumbersome.

New evidence on the effects of Indonesia's investment policies on FDI

9. **The World Bank has assembled new data in order to test systematically for the relation between changes in investment policies, particularly those in the DNI, and FDI in Indonesia.** The World Bank collected new data on the various restrictions to investments specified in the various DNI over time and matched it with quarterly data on planned FDI at

⁸ Lindblad, T. (2015). Foreign direct investment in Indonesia: fifty years of discourse, *Bulletin of Indonesian Economic Studies* Vol. 51, No. 2, 2015: 217–37.

⁹ Magiera, Stephen. 2011. 'Indonesia's Investment Negative List: An Evaluation for Selected Services Sectors'. *Bulletin of Indonesian Economic Studies* 47 (2): 195–220.

¹⁰ For example, the Ministry of Transport imposes a higher minimum capital requirement to foreign than domestic freight forwarding companies.

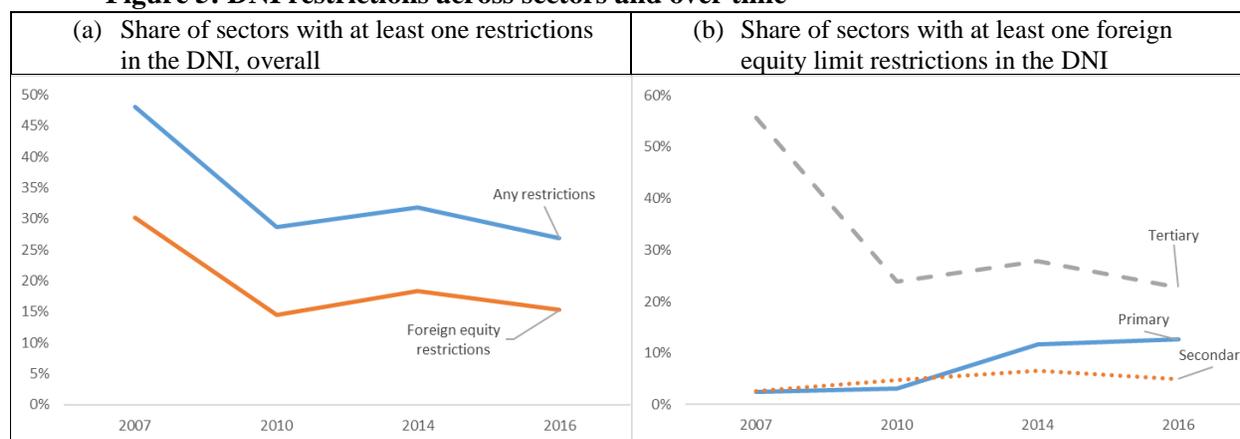
¹¹ Examples include local regulations introducing lengthy procedures to obtain business licenses or Sharia- based bylaws that may not necessarily conform to the country's constitutional laws.

¹² In particular the Court has annulled four provisions in Article 251, Paragraphs 2, 3, 4 and 8 of the 2014 Regional Government Law, that allowed the central government to scrap problematic bylaws.

the most disaggregated sectoral level available (4-digit KBLI).¹³ Such restrictions include maximum foreign equity limits, location restrictions for foreign investments, special licenses, reservations for small and medium enterprises (SMEs), for partnerships and for public-private partnerships. The DNI data is coded at a more refined level than 4-digit KBLI, hence it needs to be aggregated up to 4-digit. That is done by taking the maximum value of restriction imposed among the sub-sectors composing the 4-digit. The data allows to test for the relation over time since 2008 between planned FDI and various types of restrictions included in the DNI while controlling for sector specific characteristics and all changes in the country's macroeconomic conditions over time.

10. The new data suggests that Indonesia reduced the sectoral coverage of the DNI restrictions until 2010, after which the coverage has stabilized. Around half of all sectors were subject to at least one type of restriction in the DNI 2007 (Figure 5). Most of these restrictions are related to some caps to foreign ownership, which in 30% of overall sectors and in 60% of the tertiary sectors in 2007 was below 100% (Figure 5a and b). The sectoral coverage of these limits was substantially reduced in the DNI 2010. After that it went slightly up in 2014 and down in 2016 to return to the 2010 levels. The only exception was foreign equity limits in primary sectors, whose coverage has continued to grow since 2010. Despite this foreign equity limits remain much higher in services (tertiary) than in other sectors. This high restrictiveness of services is problematic given the importance of foreign investments in services for manufacturing productivity.¹⁴

Figure 5: DNI restrictions across sectors and over time



Note: shares computed out of 1,456 KBLI-5 digit sectors. Source: World Bank staff estimates on the basis of DNI decrees

11. The results of the analysis with the new data show that several DNI restrictions have a strong deterrent effect on FDI, particularly foreign equity limits, location restrictions and SMEs' reservations. According to our results - presented in Table 1 - raising the foreign equity limit in at least one sub-sector in a KBLI 4-digit sector from zero to 100% adds an additional 3.8 FDI projects in that sector every year (column 1). This is equivalent to

¹³ It was not possible to use the data on realized FDI as that data does not distinguish between investments from new and old investors.

¹⁴ See Duggan, V., S. Rahardja, and G. Varela (2013). Service Sector Reform and Manufacturing Productivity: Evidence from Indonesia. Policy Research Working Paper 6349. World Bank, Washington, DC.

an increase of the number of FDI projects by 22 percent and equivalent to an additional USD 4.3 million of realized investments per year. This effect is even stronger for those sectors increasing a foreign equity limit that is already above zero (column 2), perhaps due to the fact that foreign investors are already active in these sectors and are more ready to upscale their existing investment, compared to sectors which were initially closed to foreign investors. For example, if sector X moves from 49 percent to 67 percent maximum foreign limit, the number of FDI projects in that sector are expected to grow, on average, by 2.1 projects, equivalent to an additional USD 2.1 million per year in sector X. The results also suggest that reserving a sector only for SMEs reduces the number of FDI projects by 22 percent. These results are even stronger for approved foreign investment projects, consistent with the idea that the FDI application process is more directly hampered by DNI restrictions than the realization of investments. The latter can also be affected by other barriers which create a gap between planned and realized investments, and hence the impact of DNI is larger on approved investments. Other DNI restrictions, including minimum domestic content requirements and the requirement of special licenses, also have a substantial deterrent effect on investment, but only on approved FDI projects, while the effect is not statistically significant on realized FDI.¹⁵ Our analysis also shows that none of these restrictions is associated with higher domestic investments, whether realized or planned. In fact both foreign equity restrictions and domestic content requirements appear to deter also domestic investments, reinforcing the negative impact of the restrictions on investments (Table A1 in the Annex).

Table 1: DNI provisions and planned FDI to Indonesia, 2008-16

	(1)	(2)	(3)	(4)
	Nr realized projects		Nr. of planned FDI projects	
Max foreign equity limit	0.221*** (0.067)	0.596*** (0.154)	0.422*** (0.066)	0.976*** (0.153)
Reserved for SMEs	-0.220*** (0.085)	-0.119 (0.105)	-0.157** (0.075)	-0.157* (0.093)
Special licenses required	-0.055 (0.071)	-0.008 (0.098)	-0.308*** (0.061)	0.056 (0.090)
Reserved for partnership	0.260*** (0.083)	0.320*** (0.088)	0.345*** (0.083)	0.349*** (0.091)
PPP obligation	0.999*** (0.216)		0.410 (0.345)	
Local content	-0.112 (0.170)	-0.066 (0.171)	-1.621*** (0.585)	-1.464** (0.587)
Only foreign equity limits>0	No	Yes	No	Yes
Observations	11,088	9,660	13,930	11,835
Number of KBLIs	396	360	398	358

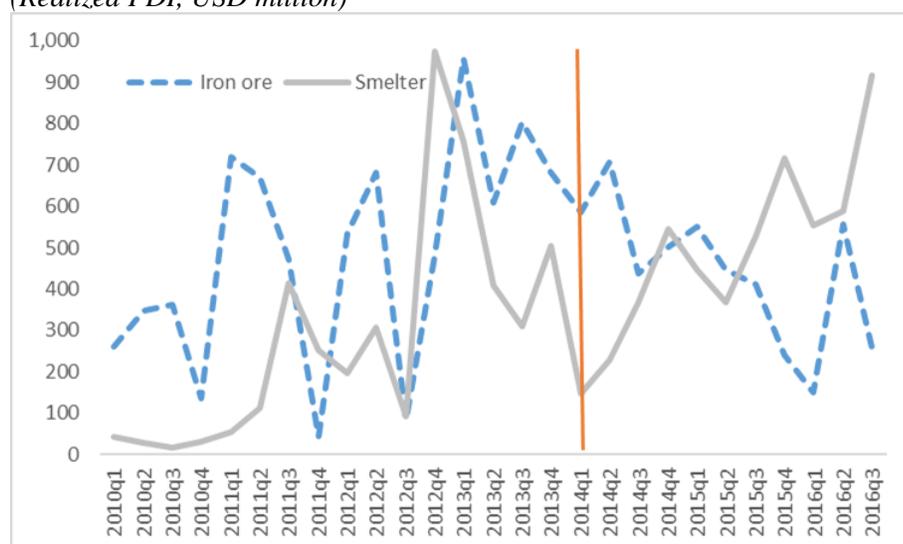
*Note: *** significant at the 1% level; ** significant at the 5% level; * significant at the 10% level; Standard errors in parenthesis (Huber White robust SE clustered at the macro-sector level in columns 1-2); regressions estimates with negative binomial; all regressions include KBLI 4-digit sector fixed effects and quarter-year effects. Source:*

¹⁵ The results for the other restrictions, including reserving a sector for special partnership and the requirement for public-private partnership, are not conclusive.

World Bank staff estimates on the basis of BKPM data on planned and realized FDI and 2007, 2010, 2014 and 2016 Perpres regulating DNI.

12. **The data also shows that the export ban on minerals seems to have reduced FDI in extractive mineral sectors and increased FDI in smelters.** The government introduced the ban on unprocessed mineral exports in February 2014, following which realized FDI in iron ore sectors, which produce unprocessed minerals, were dramatically reduced, the opposite trend of FDI in mineral processing sectors (Figure 6). We estimate that the effect of the ban was to reduce on average quarterly FDI in extractive sectors by USD 20 million and increase FDI in mineral processing by USD 60 million. This opposite trend is in line with the effects of a policy aimed at increasing value addition in the mining sector through additional smelting capacity. However the sharp reduction in FDI in extraction may also mean that the overall stock of minerals to process may eventually shrink as well. This reduction in extractive FDI was eventually reversed in the second quarter of 2016 following the news that the export ban would be lifted in early 2017.

Figure 6: A tale of two mineral sectors: The mineral export ban and realized FDI
(Realized FDI, USD million)



Note: the vertical orange line indicates the introduction of the mineral export ban. Source: World Bank staff estimates on the basis of BKPM data

13. **The analysis also shows that Bilateral Investment Treaties (BITs) raise FDI inflows to Indonesia, thus casting doubts on Indonesia’s recent decision of terminating BITs.** To explore the relation between BITs and FDI inflows we regress net quarterly FDI inflows to Indonesia from each of the 40 main origin countries (from Bank Indonesia) on the timing of the entry into force and termination of BIT between Indonesia and each of the countries. We control for all time invariant country of origin’s factors (e.g. their size, location, historical ties with Indonesia, etc.), for all changes in Indonesia conditions over time that may affect FDI (e.g. economic conditions, political stability) and for total outward FDI in every quarter by each country. In line with the international evidence, the results suggest that terminating a BIT with a partner country is associated with an average reduction in net FDI inflow from

that country by USD 82 million in each of the following quarters.¹⁶ This reduction is larger than the average quarterly bilateral net FDI inflow (USD 72 million), implying that BIT termination may cause divestment of FDI. The analysis also finds a positive FDI effect from signing a BIT even if that does not enter into force. This suggests that BITs may raise FDI mainly through a market signaling effect rather than through the actual use of an extra-territorial dispute settlement resolution mechanism, which has in fact been rarely used by FDI in Indonesia.¹⁷

14. **The international evidence also suggests that signing trade agreements may also raise FDI, a result only mildly supported by Indonesian data, while narrow doing business reforms do not seem to affect FDI.** Free Trade Agreements (FTAs) can provide a mechanism to credibly commit to foreign investors about the treatment of their assets, thus reassuring investors and increasing investment. While cross-country evidence tends to support this hypothesis¹⁸, our analysis using Indonesian data suggests that only those FTAs with specific investment provisions seem to increase – albeit mildly - FDI attractiveness. On the other hand other FTAs have no effects. Similarly cross-country analyses that we have performed over the period 2007-2015 suggests that doing business reforms as captured by the scores in the World Bank’s Doing Business Indicators are not associated with changes in net FDI inflows.

Policy implications

15. **Reducing DNI restrictions, particularly on foreign equity limits, investments’ locations and reservation for SMEs, could help increase FDI.** Our analysis suggests that the DNI seems to be an effective tool to attract or deter FDI so restrictions in there, including foreign equity limits, locations, reservations for SMEs, special licenses, should be carefully considered against their deterrence effect to FDI. More refined sectoral analyses may shed light on specific sub-sectors where such restrictions may be particularly harmful. However it restrictions on foreign equity limits in services sectors are particularly high and should be reduced given the importance of foreign investments in services for manufacturing productivity.
16. **Eliminating sectoral investment restrictions which are in contradiction with the DNI while keeping the DNI as the only legal source of restrictions would enhance clarity and transparency to investors.** Such features are important to attract investors, especially foreign ones, whose willingness to navigate the complex and at times contrasting foreign legal frameworks may be limited. Going forward this would also require the establishment of

¹⁶ Evidence across countries confirms the FDI raising effect of BITs, such as Matthias Busse, Jens Koniger & Peter Nunnenkamp (2010), “FDI Promotion Through Bilateral Investment Treaties: More than a Bit?”, *Review of World Economics* 147.

¹⁷ The small effect of dispute settlement on FDI is in line with other evidence, such as Axel Berger, Matthias Busse, Peter Nunnenkamp, and Martin Roy (2013) “Do trade and investment agreements lead to more FDI? Accounting for key provisions inside the black box,” *International Economics and Economic Policy*.

¹⁸ See for instance Büthe, Tim, and Helen V. Milner (2008). "The politics of foreign direct investment into developing countries: increasing FDI through international trade agreements?." *American Journal of Political Science* 52.4: 741-762.

an institutional mechanism to avoid such contradictions and to maintain the DNI as the sole repository of investment restrictions in Indonesia.

17. **Reconsidering the unilateral termination of BITs is important to avoid further deterrence of investors; at the same time Indonesia could develop new BITs with more stringent rules on the use of the extra-territorial dispute settlement.** The negative impact of BITs on foreign investors seems to have worked mainly through a market signaling mechanism. Indonesia could redress that by re-negotiating the BITs that have been terminated while changing the provisions with respect to the dispute settlement mechanism. Liberal rules about the latter appears to be the main matter of contention vis-à-vis BITs without bringing about clear benefits in terms of higher FDI attractiveness.
18. **The mineral export ban has had mixed effects on the mining industry, attracting foreign investments in smelters and deterring those in mining extraction, which may compromise the viability of the industry.** If Indonesia is interested in attracting investors in processing it could consider alternative policy options that would not deter upstream investment, such as targeted incentives.
19. **Indonesia could step up its ongoing economic de-regulation efforts to increase FDI inflows and negotiate new FTAs which include investment provisions.** The experience in the last three decades confirms that substantial de-regulating reforms, such as trade liberalization and pro-competition reforms have historically been associated with jumps in FDI, especially in secondary and tertiary sectors. Such reforms may also include the strengthening of the intellectual property right regime, which across countries has been shown to be an important determinant of FDI.¹⁹ Finally, Indonesia could ensure that new FTAs, especially regional and plurilateral agreements, include investment provisions. To that end the ambitious text of the investment chapter in the Trans-Pacific Partnership agreement could represent a benchmark.
20. **Indonesia could also invest in the capacity to help investors to comply with the various legal requirements necessary to implement and benefit from the investment.** The international evidence shows that this function – usually fulfilled by the investment promotion agency - is particularly key to ensure the realization of the investments, especially for smaller and less productive firms, for which access to information is more costly.²⁰ In addition services such as helping firms to gain access and to expand their infrastructure and facilitating linkages with suppliers and buyers could indirectly contribute to enhance the country's reputation and hence to attract new investors.
21. **While FDI inflows can be beneficial, it is paramount to managing them effectively to minimize their negative externalities and maximize their contribution to Indonesian economy.** The experience of Indonesia, just as that of any countries, highlights the

¹⁹ See for instance Awokuse, Titus O., and Weishi Grace Gu (2015). "Does Foreign Intellectual Property Rights Protection Affect US Exports and FDI?." *Bulletin of Economic Research* 67.3: 256-264; and Nunnenkamp, Peter, and Julius Spatz (2004). "Intellectual property rights and foreign direct investment: a disaggregated analysis." *Review of World Economics* 140.3: 393-414.

²⁰ See Kenyon et al. (ibid.).

importance of dealing properly with negative externalities that foreign, as well as domestic, investors may cause, in terms of environmental pollution, degradation, labor and social disputes. At the same time it is important to maximize the quantity and quality of the linkages of FDI with the domestic economy without distorting the incentives for investments, such as through the imposition of local content requirements.

Annex: Additional results

Table A1: DNI and the impact on domestic investment projects

	(1)	(2)	(3)	(4)
	Nr. of planned domestic projects		Nr domestic projects	
Max foreign equity limit	0.451*** (0.058)	0.489*** (0.143)	0.458*** (0.105)	0.905*** (0.242)
Reserved for SMEs	-0.091 (0.074)	-0.033 (0.089)	-0.115 (0.108)	0.147 (0.135)
Special licenses required	0.077 (0.068)	0.103 (0.092)	-0.139 (0.099)	-0.151 (0.129)
Reserved for partnership	0.236*** (0.077)	0.280*** (0.082)	0.037 (0.105)	-0.014 (0.113)
PPP obligation	0.424 (0.273)		0.169 (0.330)	
Local content	-0.510*** (0.193)	-0.511*** (0.195)	-0.538** (0.233)	-0.438* (0.230)
Only foreign equity limits>0	No	Yes	No	Yes
Observations	15,336	12,506	8,932	7,548
Number of KBLIs	426	382	319	281

*Note: *** significant at the 1% level; ** significant at the 5% level; * significant at the 10% level; Standard errors in parenthesis (Huber White robust SE clustered at the macro-sector level in columns 1-2); regressions estimates with negative binomial; all regressions include KBLI 4-digit sector fixed effects and quarter-year effects. Source: World Bank staff estimates on the basis of BKPM data on planned and realized domestic investments and 2007, 2010, 2014 and 2016 Perpres regulating DNI.*