

Projecting the long run impact of an economic reform: the case of the Indonesian Omnibus Law¹

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Abstract

Indonesia has been trying to improve its investment climate. The most recent development in this process is the enactment of a 'Job Creation Law' which aims to improve the investment climate through simplifying complicated red tape, eliminating large numbers of overlapping regulations and the adoption of a Risk Based Assessment approach to business licensing. In parallel to this development, the Indonesian Government is pursuing an Import Substitution Strategy to preserve external balance while fostering local activity. This paper discusses the changes introduced by these policies and how each may be captured in policy simulations. It then looks to simulate the potential national and sectoral impacts of the policies using the recursive dynamic GDyn-FS model of the global economy. It highlights impacts of the policies on national investment and trade over time and the flow-on impacts to industries and households. The analysis also takes into account changes caused by the COVID-19 pandemic to Indonesia's economy in the baseline scenario. The result of the policy simulations reflects a new and materially higher growth trajectory for the Indonesian economy in the situation where institution and country risk is lowered through better regulation. On the other hand, the projections indicate that the pursuit of an import substitution strategy, while possibly favouring individual protected activities, is likely to act as a drag on the wider economy.

Keywords: CGE, adjustment cost, Foreign direct investment JEL classification: O53, F21, F68, O24, O25

¹ We would like to thank participants of the Crawford PhD Seminar at Australian National University (ANU) for their constructive feedback.

Introduction

The COVID-19 pandemic led to a new episode of economic reform by the Indonesian Government. The new Law no. 11/2020 dubbed the Job Creation Law (also known as the 2020 Omnibus Law) is arguably the most important institutional change since reforms made in response to the Asian Financial Crisis (AFC). The key point of the new law is to simplify complicated red tape and large numbers of overlapping regulations amid Indonesia's lack of regulatory discipline since decentralisation (Surianta and Patunru 2021). The new law is intended to help encourage investment both domestically and attract investment from abroad. Through foreign investment it is hoped to bring additional expertise and know-how to improve economic performance.

At the same time, the Indonesian Government is pursuing an Import Substitution Strategy (ISS) aimed at reducing imports by up to 35% in 2022 (Yu 2020) and restoring external balance through a lowering of the current account deficit (CAD). Various regulations are used to limit imports, such as a national standard of products (Standar Nasional Indonesia, SNI), increased pre-shipment inspection, local content requirements (Tingkat Kandungan Dalam Negeri, TKDN), and tariffs (Narjoko, Anas, and Herdiyanto 2018; Yu 2020; Patunru 2018). The widened trade deficit, need of foreign exchange and protection of prominent state-owned enterprises (SOEs) such as Krakatau Steel are cited as the main reasons for pursuit of an Import Substitution Strategy (Yu 2020).

The two policy goals seem to counteract each other, as any increase in imports of material to support new investment under the first policy, such as structural steel to make up any gaps between domestic demand and supply as investment is boosted, would be expected to increase the trade deficit and potentially the CAD, at least in the short- to medium-term.

As these two policy directions cannot be easily reconciled it is important to appreciate the reasoning behind the Indonesian Government's focus on external balance and associated concern for the CAD, and the balance of economic benefits that potentially could flow from policies conducive to new investment and improved productivity. In the first instance, the experience of the AFC in 1998 when Indonesia faced a situation of

default on foreign obligations, is still fresh in the memory of many Indonesian Government personnel. And while Indonesia managed to successfully navigate the Global Financial Crisis (GFC) in 2008 and the U.S.' Federal Reserve breaks in asset purchasing in 2013, the management of the COVID-19 crisis and its aftermath and current global tensions remain formidable challenges. This paper argues that fear of CAD mainly comes from these earlier experiences and current concerns, but that discussion of Indonesian economic reform will not be improved unless the potential costs of new constraints on imports and potential benefits of policies favourable to efficient investment are properly discussed.

This paper starts with a brief explanation of the economic reform that was introduced by the Indonesian Government through the Job Creation Law, and why it is needed. It is an omnibus law that revokes multiple laws controlling business licensing processes, environmental standards, trade, and the labour market. It also introduces new institutions such as the Sovereign Wealth Fund. This huge coverage is also the main reason why this bill is controversial, especially since it is being introduced without extensive public consultation and in the middle of a pandemic.

To assess the potential economic benefits of the Job Creation Law and implications for current account balances, we use the GDyn-FS model, a recursive dynamic, multi-sector and multi-region computable general equilibrium (CGE) model of the global economy. It is argued that the successful implementation of economic reforms in Indonesia would lead to an improved business and investment climate realized through a reduction in the risk premium required by investors and improvements in financial market efficiency in Indonesia. This would reduce the required rate of return (the model's rate of interest) and boost new investment in Indonesia. The recursive dynamic nature of the model allows for the simulation of the short-term impacts on national and sectoral activity levels and the CAD as well as the medium to longer run impacts. The adaptive expectations theory of investment avoids instantaneous smoothing of investment across periods. It also enables the simulation of the potential impacts and economic costs of additional regulatory restrictions on imports.

The results show that a reduction of required rate of return on investment of 100 basis points could translate into 8.27% higher Gross Domestic Product (GDP) for Indonesia in 2050, that is, 29 years after implementation. Effective reform is projected to lower Indonesia's cost of capital by 11.77% and raise capital stock by 11.72% over this period. In the short to medium terms, investment is projected to boom in the first five years' after implementation, before it gradually cools off to a new permanently higher level. At its peak, investment is projected to be 48.95% higher compared to the baseline. The simulation also shows higher consumption and wage levels for both skilled and unskilled labour.

Importantly, we show a potentially higher CAD in the first five years, when the investment boom is happening. The trade balance could potentially be 9.58 percentage points lower compared to the baseline during this phase. However, by 2050, the trade balance settles in positive territory at around 0.75 percentage points higher compared to the baseline. Foreign ownership of local capital is projected to increase and with this investment income remitted offshore would increase. After account is taken of changes in foreign remittances and receipts, real national income is projected to rise. In the long run, importantly, the pressure on the current account substantially reduced.

Our study indicates an important policy implication for the Indonesian Government. International trade is important to complement an improved investment climate. As Indonesia increases its capital accumulation, a larger demand for capital goods as well as important capital building of intermediate inputs, such as steel and aluminium, would occur. Policies that discourage foreign supplies will only serve to raise domestic prices of these goods and undermine the impact of the positive efforts to accumulate capital faster. Without quickly building up global competitiveness, securing foreign exchange to pay for the foreign liabilities is likely to place downward pressure on exchange rates in the future.

The next section of this paper discusses the policy setting, we provide a background to Indonesia's current inefficient capital market and discuss why reform is necessary. We also provide more information on the Job Creation Law and its potential benefits. We

then describe the model and its investment mechanism, as well as how the effects of reform are simulated. We finally provide the results and discussion and close this paper with a conclusion.

Recent developments and economic reform potential

Indonesia still has an issue with its inefficient capital accumulation. Figure 1 shows Indonesia's Incremental Capital-Output Ratio (ICOR), which measures how much GDP increases as investment increases. While Indonesia's capital accumulation keeps growing, its ICOR has never returned to pre-AFC level. In fact, it seems to have continued increasing after the commodity boom ended.



Figure 1. Incremental Capital formation to Output Ratio of Indonesia, 1980-2020

Source: World Development Indicators (World Bank).

Another useful indicator when considering the investment climate is risk premium. This can be measured by differentiating Indonesia's risk premium with that of a developed economy like the U.S.. Defining risk premium as the difference between prime lending rate and 3-month treasury bill rate, Figure 2 shows the difference between Indonesia's risk premium and U.S.' risk premium. Indonesia's risk premium, using this

measure, gradually closed from post GFC levels towards U.S. levels by mid-2018. However, by the end of 2019, the gap had returned.

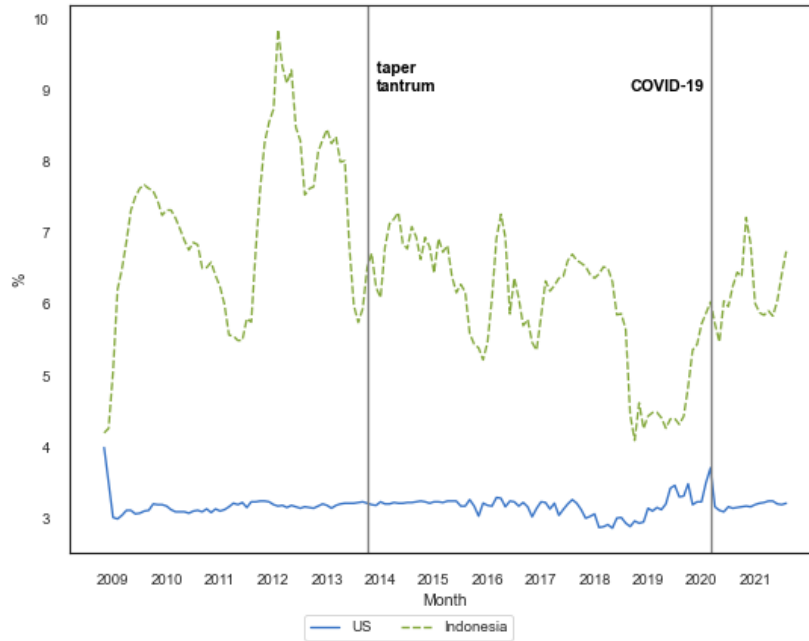


Figure 2. Lending rate less 3-month treasury bill, Indonesia and the U.S.A

Source: Author's calculation, Bank Indonesia, Indonesia Bond Pricing Agency, U.S.' Federal Reserve via CEIC

More concerning is when we define the risk premium as the difference between the rate of a safe asset in Indonesia compared with the U.S.. Figure 3 plots the 10-year bond rate of Indonesia and U.S., adjusted for inflation. After the Fed's tapering episode, Indonesia's bond rate has trended upward, while the U.S.' 10-year inflation adjusted bond rate has remained relatively flat. In 2017, the bond rate seems to show progress toward a lower rate but the U.S.' interest rate hike in 2018 once again revealed Indonesian economy's vulnerability to foreign rate changes. The Indonesian Government must improve its fundamentals if funds are to be attracted at real interest rates approaching the U.S. benchmark.

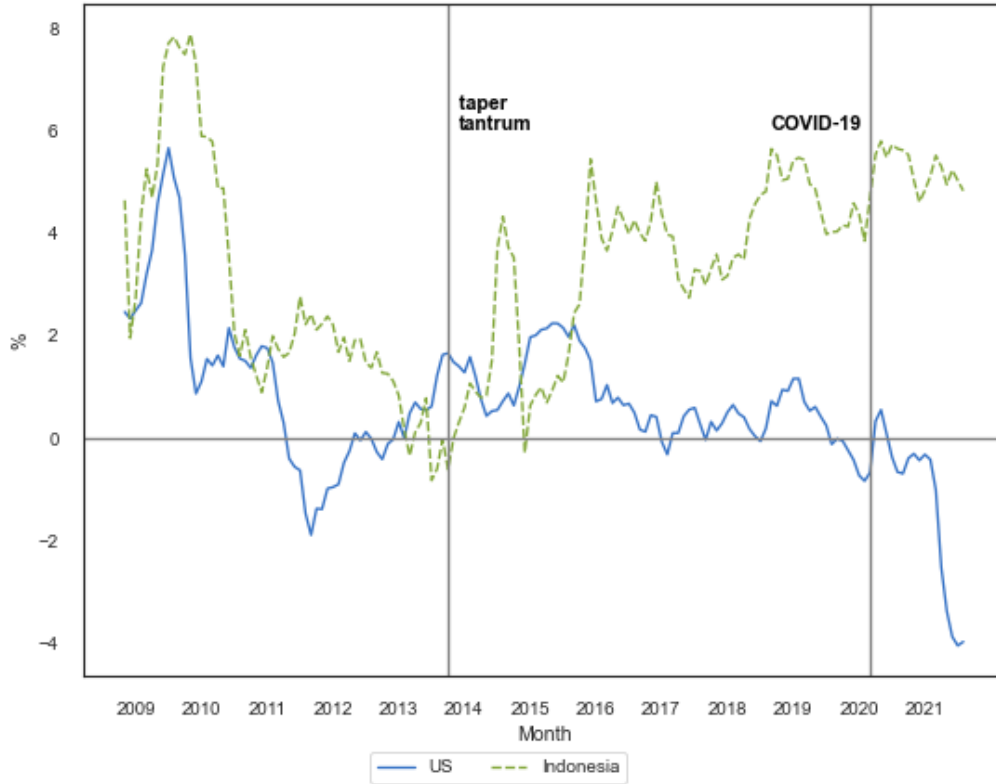


Figure 3. Inflation adjusted 10-Year bond rate, Indonesia and The U.S.

Source: Author's calculation, Bank Indonesia, Indonesia Bond Pricing Agency, U.S.' Federal Reserve via CEIC

Structural reform is necessary to reduce the risk premium of Indonesia and increase its investment efficiency. Indeed, structural policies have been shown to be the better predictor of the AFC for Indonesia than proximate factors associated with financial balances (Kenward 1999). Structural policies such as restrictive trade and investment, industrial protectionism, and cronyism in general, matter considerably to Indonesia's economic performance (Kenward 1999; Hill 2018; Basri and Hill 2004; Patunru and Rahardja 2015). The huge flow of capital to Indonesia was met with protectionist trade, which led to market-seeking foreign firms, most notably in the automotive sector, instead of factor-seeking exporters (Lindblad 2015; Parker and Hutabarat 1996).

Other structural problems in Indonesia are also often cited. Among them is a restrictive and inefficient labour market (Coxhead 2014; Manning 2014). The business climate is also less conducive amid a cumbersome regulatory framework with overlapping authority

among various levels of Ministerial and local governments (Surianta and Patunru 2021; Negara and Hutchinson 2020). Indonesia has been successful in improving investment while keeping fiscal discipline, at the cost of increasing SOEs' debt (Triggs, Kacaribu, and Wang 2019). Trading across the border, one of the most important conditions for successful participation in global value chains (GVC), was relatively restricted in the Southeast Asia region and is increasingly so (Patunru and Rahardja 2015; Patunru 2018).

Improving Indonesia's business climate was slow after the AFC (Lindblad 2015). Uncertainties even seemed to increase after decentralization when local governments could make their own regulations, leading to 'regulatory obesity' (Surianta and Patunru 2021; Negara and Hutchinson 2020). With the increased protectionist approach, policy in Indonesia leant in favour of market-seeking foreign investors, which is a direction that could erode overall growth potential.

Potential for improvement: The Omnibus Law

Over a long period, the Indonesian Government tried changing many regulations with non-conclusive results. However, the economic and social crisis caused by the COVID-19 pandemic prompted the government to propose a new omnibus law. The law, called Law 11/2020 on Job Creation, was passed by the Parliament in October 2020, albeit amidst controversy (Temenggung et al. 2021; Surianta and Patunru 2021). The regulation overrules many other regulations on employment, investment, starting a business, and the management of Indonesia's sovereign wealth fund (SWF), among other things (Temenggung et al. 2021). The Indonesian Government argued that the law was desperately needed to recover from the COVID-19 crisis. Various deregulation measures are intended to improve the investment climate and create jobs.

The main deregulation feature is the introduction of the Risk-Based Assessment (RBA) approach in the business licensing process. RBA categorizes industries (by an ISIC-like classification) based on risk. The risk itself is classified into low, medium-low, medium-high and high risk, depending on health and safety in the industry, its impact on the environment, as well as its use of natural resources. Firms operating in the low-risk industries get business permits much faster compared to those in higher risk industries

(Temenggung et al. 2021). Moreover, follow-up regulation of the law shows an adaptation of ‘silence is consent’. That is, if a document is not responded to by the authorized level of government, then the central government is allowed to take over. The law also mandates a more streamlined business licensing process via an online system. These approaches, especially the ‘silence is consent’ convention is intended to tackle the coordination problem and multiple layering of authorities.

As noted, the Job Creation Law introduced a new SWF (Temenggung et al. 2021). Unlike most SWFs, the Indonesian SWF is not financed from a surplus, but instead from government borrowings. The SWF is meant to pool investment funds from domestic and foreign sources, to be injected to various projects in Indonesia, such as infrastructure, energy, and manufacturing. The funds channelled through SWF will receive added benefits, such as special tax treatment and the ability to navigate and accelerate regulation and permit issuance. Additionally, the SWF will have a full guarantee by the Government of Indonesia.

The SWF is intended to provide a means of further reducing red tape and lowering uncertainty in doing business in Indonesia. As the arm of the regulator, the SWF shows that the Indonesian Government will have ‘skin’ in the investment game. The full guarantee by the government has the potential to add an extra layer of safety to investors willing to channel their funds in Indonesia through the SWF. Moreover, the SWF could improve the competitiveness of and reduce the investment risk in qualifying the industrial activities (Bertoni and Lugo 2014; Boubakri, Cosset, and Grira 2017). Indeed, other investment funds from Singapore, Canada, the U.S., Abu Dhabi and Japan seem to have invested in Indonesia through the Indonesian fund (Temenggung et al. 2021).

The Job Creation Law also tries to reform Indonesia’s rigid job market. Indonesia’s high severance pay, uncertainty over the minimum wage and limited outsourcing are often cited as the main reasons investors are deterred, especially in the labour-intensive industries (Coxhead 2014; Manning 2014; Negara and Hutchinson 2020). The Job Creation Law aims to reduce severance pay, provide a more flexible contract, and looser use of outsourcing (Temenggung et al. 2021). The law also introduces a form of unemployment

benefit and training fund for workers to reskill. Lastly, Small and Medium Enterprises (SMEs) are exempted from paying the minimum wage, which may help SMEs grow and reduce the incentive to remain in the informal sector. The full implementation of the Job Creation Law may take some time. The law requires follow-up regulations drafted by various ministries. It is also important to note, however, that the new constitutional court ruling on the law could potentially add an extra layer of legal uncertainty. However, the is trying to ameliorate many impediments to efficient investment in Indonesia's. If the government manages to accommodate criticisms regarding this law and is able to successfully implement it, the potential for new investment from both domestic and foreign sources may be significant.

Another area where red tape could potentially be cut is trade. Indonesia has been using import licensing to control imports, especially since the introduction of various tariff cuts as a consequence of joining various bilateral and regional trade agreements (Munadi 2016, 2019). While the Job Creation Law will not abolish this, Indonesia has introduced a new system called 'Neraca Komoditas' (Commodities Balance Sheet). This system will contain information on supply and demand of a good for industry, and then use that information to automatically grant import licensing to firms (Gupta and Pane 2021; Gupta, Pane and Pasaribu 2022). It promises a faster licensing process as well as more liberal quota restrictions for industries. The government intends that this will help industries access intermediate inputs from abroad, hence improve global competitiveness.

Modelling framework and policy scenarios

How the Indonesian Government is able to realise the potential of the Omnibus Law remains to be seen. However, a benchmark of the full potential of reform with such a scale is needed to assess the potential benefits of effective reform in Indonesia. Assuming that the reform can be implemented effectively, we would expect to see an improved investment climate in Indonesia and an associated closing of the gap between the 10-year bond rates in Indonesia and the U.S. The benchmark would show likely new investment

activity funded from domestic savings and from abroad. It also can be useful to evaluate how the current account could evolve over time.

This paper uses the GDyn-FS model, a modified version of GDyn, a recursive dynamic GTAP model (Gretton 2021; Ianchovichina and Walmsley 2012; Hertel and Tsigas 1997; Corong et al. 2017). The GTAP model is a widely used multi-region, multi-sector, static Computable General Equilibrium model with a utility maximizing representative agent in each region. Each sector consists of one representative firm with Constant Elasticity of Technology (CET) demand for inputs with profit maximizing behaviour. Each firm uses inputs from each industry as well as five types of production factors.

GDyn adds a recursive dynamic mechanism to the GTAP model by allowing movement of capital across regions as well as adaptive expectation theory of investment (Ianchovichina and McDougall 2012). The adaptive expectation theory of investment is what facilitates the transition of the economy to the next period. Decisions to invest are calculated based on a gradual convergence of actual and expected rates of return in a region toward an exogenous target rate of return. Movement of real capital-finance between regions is facilitated by a ‘global trust’, through which each region saves and borrows internationally.

In the GDyn model, there are three measures of the rate of return, which converge in the long run across regions:

$$RORGROSS_r = RORGE_r = RORGT_r \quad (1)$$

where $RORGROSS_r$ is the gross rate of return in region r , while $RORGE_r$ is expected rate of return and $RORGT_r$ is the target rate of return. All of those rates are constant in the long run. Using lowercase as the first difference form, we get:

$$rorgross_r = rorge_r = rorgt_r = 0 \quad (2)$$

The target rate of return is a constant rate, which means $rorgt_r$ is an exogenous variable with the value of 0, unless shocked as part of a modelling scenario. $RORGROSS_r$ is the actual rate of return in the region r which is calculated as the ratio between the return to capital and the price of capital.

In GDyn model, capital grows with the rate of ERG_RORG_r :

$$ERG_RORG_r = -RORG_FLEX_r \times \left(\frac{QCGDS_r}{QK_r} - RDEP_r - KHAT_r \right) \quad (3)$$

with lower case representing first difference and with the rate of depreciation fixed by assumption, total difference of (3) becomes:

$$erg_rorg_r = -RORG_FLEX_r \times \left(\frac{QCGDS_r}{QK_r} \times (qcgds_r - qk_r) - DKHAT_r \right) \quad (4)$$

where erg_rorg_r is the expected rate of growth in the rate of return in region r . $QCGDS_r$ is investment in region r , while QK_r is the capital stock. $RORG_FLEX_r$ is the elasticity of how the expected rate of return growth affects investment in region r . This means, investment will change as long as the expected rate of growth in the rate of return is not zero.

The path of erg_r follows this equation:

$$erg_rorg_r = LAMBRORGE_r \times (rorgt_r - rorge_r) \quad (5)$$

which tells us that the expected rate of growth in the rate of return will not be zero as long as expected rate of return is not aligned with the target rate of return. This means, investment accumulation is sensitive to the change in expected rate of return, $rorge_r$.

Expectation of investors is updated with an adaptive expectation:

$$\begin{aligned} rorge_r = & -RORG_FLEX_r \times (qk_r - 100 \times KHAT_r) \\ & - 100 \times LAMRORGE_r \times \log \left(\frac{RORGE_r}{RORGROSS_r} \right) \end{aligned} \quad (6)$$

That is, expected rate of growth will change as long as there is discrepancy between the expect return and the actual rate of return, $RORGROSS_r$. The bridging of the expected rate of return variable allows GDyn to prevent convergence to a target rate, which allows for an adjustment of investment. This process will continue until the three rates converge and equation 2 holds.

The model used in this paper is the GDyn-FS model. GDyn-FS adds stability to GDyn through the introduction of non-convex adjustment cost to capital (Gretton 2021). GDyn-FS also modifies GDyn's rule of change in the expected rate of return, equation (5), with:

$$erg_rorg_r = LAMBRORGE_r \times (rorgt_r - rorge_r) + \left(100 \times LAMBRORGE_r^2 \times \log \left(\frac{RORGT_r}{RORGE_r} \right) \right) \quad (7)$$

Equation 7 also links the adjustment of the expected rate of return with the ratio of the target rate of return and expected rate of return. This implementation ensures the expected rate converges to the target rate of return and allows for changes in the target rate via $rorgt_r$ (instead of having it as always zero). The formulation also ensures stability of the original GDyn (Gretton 2021). The target rate, $RORGT_r$ is also allowed to vary across regions to reflect differences in regional risk (Gretton 2021).

Baseline and policy scenario

The typical simulation of the model involves creating a baseline scenario where business as usual is assumed. The second simulation is then conducted with the ‘policy shock’ which involves incorporating the policy change in the scenario modelled. With the baseline as a reference case, the simulation illustrates the potential improvement that would accrue from the effective implementation of the policy. The baseline can be run as is (that is comparative dynamic mode), with capital accumulation as the only source of adjustment between periods. However, to improve the realism of the baseline, it is important to incorporate growth in population and labour supply to the model (Walmsley, Dimaranan, and McDougall 2012; Gretton 2021).

The model is calibrated with parameters and initial values from GTAP database version 10 (Aguiar et al. 2019) which provides the 2014 reference year in GDyn format. The simulation is then started with 2014 as the base year and provides estimates for each year up to 2050. The job creation law was legislated in 2020, and most of its follow-up regulations came into effect in 2021. The shock is implemented in two-year phase, namely 2022 and 2023, by half a percentage point each.

As with Gretton (2021), this paper utilises baseline characteristics of Fouré, Bénassy-Quéré and Fontagné (2010) included in Chappuis and Walmsley (2011) (figure 4). These estimates allow the creation of a baseline to 2050. This paper updates that baseline over

the period 2014 to 2026 from the World Economic Outlook (IMF 2021). These data and projections include estimates of the impact of COVID-19 and its immediate aftermath. Population projections are sourced to Fouré, Bénassy-Quéré and Fontagné (2010) via Chappuis and Walmsley (2011) as are projections of skilled and unskilled labour inputs.



Figure 4. Baseline projection of Indonesia

Source: Authors' calculation, GTAP 10 database, Chappuis and Walmsley (2011)

The main goal of The Job Creation Law is to reduce investment red tape, increasing investment from both domestic and foreign investors. The more accessible business licensing system and lower labour market rigidity should reduce start-up costs in Indonesia. Moreover, the SWF should potentially help with pooling funds and provide a less risky investment platform for portfolio investors with long-term funds. All of these measures could potentially reduce the required rate of return on investment, affording an incentive for increased capital accumulation in Indonesia.

The modelling of a better investment climate is implemented via shocking the variable rorgt_t . Lowering rorgt_t leads to higher erg_rorg_t which pushes investment up to balance

equation 4. In other words, the economy undertakes investment (both funded from domestic saving and from abroad) to converge to the lower target rate. The implemented shock is calibrated to decrease Indonesia's target rate of return by 1 percentage point (ie 100 basis points). That is, the required rate of return for firms investing in Indonesia is reduced by 1 percentage point. This amount is equal to closing the rate of return gap between Indonesia and the US by around 12%. The shock is phased in over two-years in equal steps. The pre-shock and after-shock target rate of return are shown in table 1.

Table 1. Target rate of return, before and after shock

Country	RORGT (%) pre-shock	RORGT (%) post-shock
Indonesia	15.5	14.5
US	7.3	7.3

Source: GTAP 10 database, 2014 reference year.

In addition to the better investment climate scenario, we also provide a second scenario in which Indonesia relaxes import controls over trade to afford access by local industries and consumers to lower-cost capital, intermediate and consumption goods. Faster licensing processes promised by Neraca Komoditas should also help to reduce the cost of trade which can be reflected in a reduced ad-valorem tariff equivalent. To reflect the potential benefits of further trade liberalization, the second scenario adds an across-the-board tariff reduction of 10%, also in a two-year phase.

Lastly, we simulate a third scenario where Indonesia implements a reduction of imports of 35% by 2022. There is no detailed knowledge of how Indonesia would achieve such target aside from the use of LCR, but this paper uses import tariffs as the instrument to express such a scenario. The tariff enters the model through import price to local users, which may still be appropriate if other types of trade measures are used to bar imports. That is, it is possible to find a tariff equivalent of most real-world import limiting measures (such as import quotas and non-tariff barriers).

We argue that the reduction of imports will limit the potential of a better investment climate for both attracting capital and improving economic growth. After all, imports are needed to improve economic efficiency as well as ongoing capital replacement and accumulation. Therefore, the third policy scenario shows only the more restrictive tariff.

In total, there are three scenarios in this exercise which is summarized in table 2.

Table 2. Summary of implemented scenarios

Scenario	Description	Increased financial market efficiency	Trade policy
1	Domestic regulatory reform	Yes	No change
2	Domestic regulatory reform and trade liberalisation	Yes	More open
3	More restrictive trade policy	No	More restrictive

Results

Scenario Comparison

Figure 5 shows the main results from the three scenarios. It plots the deviation from the baseline of four growth variables, namely, GDP, investment, the trade balance and private consumption. A better investment climate and associated increased economic activity is shown in higher activity levels relative to the baseline. The economic activity rate overshoots the baseline level until around 2035 as capital is built to a new higher longer run level. By 2050, under domestic regulatory reform (scenario 1), the Indonesian economy is projected to be larger by around 6.4% relative to the baseline.

Domestic regulatory reform combine with trade liberalisation (Scenario 2) provides greater economic benefits than scenario 1. With the additional of a reduction in import tariffs by 10%, the path of convergence lies above the path projected for scenario 1. After 29 years, the projection of scenario 2 leads to higher GDP than the baseline by more than 8%.

On the contrary, a more protectionist trade policy regime (scenario 3) is projected to lead to a lower GDP compared to the baseline level. Activity begins to recovered after 10

years, but never quite recovers to the baseline level. GDP is projected to be 0.8% below the baseline level by 2050.

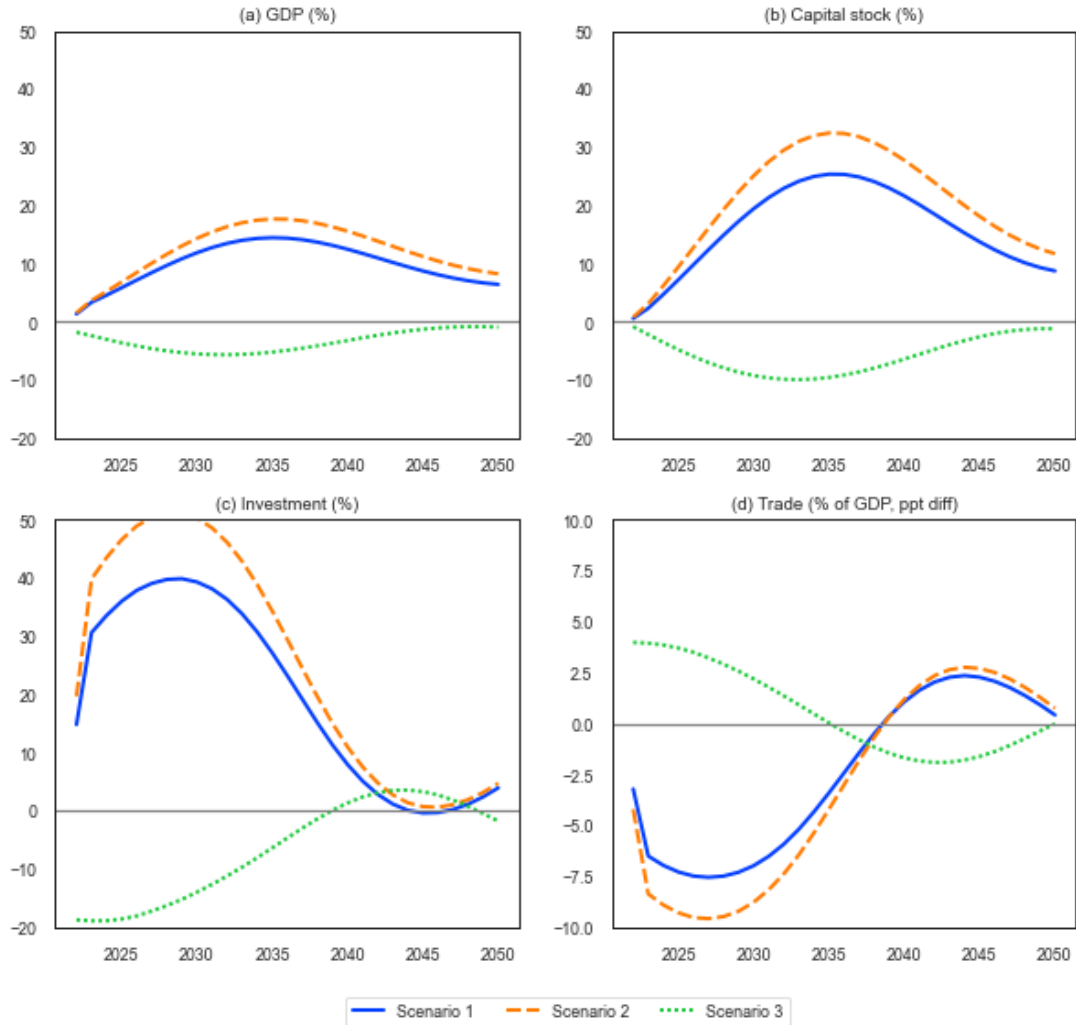


Figure 5. Deviation from baseline for three scenarios on selected indicators, 2022 to 2050

Source: Authors' projections.

In each of the three scenarios, the pattern of GDP in panel (a) highly correlates with the pattern of capital stock in panel (b).

Panel (c) on investment in figure 5 shows one possible explanation. Although both scenarios 1 and 2 have the same reduction of required rate of return, investment growth in scenario 2 jumps higher compared to scenario 1. The increase of 2 over 1 is driven

mainly by the availability of cheaper investment goods, which makes the import of investment goods more attractive. While there is no change in the required rate of return in scenario 3, investment is projected to decline in a more restrictive import environment, where the cost of capital goods is higher than otherwise.

The trade balance is projected to move in opposite directions. While protectionism is aimed at reducing the negative trade balance, the simulation indicates that any reduction is likely to be only temporary. As figure 5 panel (d) shows, the ratio of the trade balance to GDP rises to around 4% under scenario 3. However, after 15 years, the balance changes and Indonesia is faced with a trade deficit relative to the baseline once again before converging towards baseline levels by 2050.

Without additional limitations to imports, scenario 1 shows an increase in imports, and hence a trade balance below baseline levels. Scenario 2 with a more liberal import regime, an even lower trade balance than scenario 1 is projected. However, by around 2035, scenario 2 actually leads to a higher trade balance as exports expand relative to imports. That is, as capital builds up and firms can access lower cost capital and intermediate inputs for production, they can be more competitive and increase exports. Eventually though, the trade balance from scenarios 1 and 2 converge toward baseline levels.

The results from the three scenario show that a temporary CAD could actually benefit Indonesia in the long run. We have argued that Indonesia's current level of short-term debt is relatively safe and there remains some room for a higher CAD. In fact, if primary income keeps growing, Indonesia must compete for foreign exchange through exports to counterbalance the net outflow of primary income. Building up capital quickly and productively is important to improving the global competitiveness.

Long-run results of scenario 2

In this subsection, we explore the projected impacts of the combine regulatory reform and trade liberalisation scenario (scenario 2) more closely. The more optimistic scenario can serve as a benchmark for the Indonesian Government to support the implementation

of the Job Creation Law. Table 3 provides more details of the deviation from baseline levels for the years 2022, 2026, 2031 and 2050. These years are chosen to represent different stages in the transition of the Indonesian economy towards a new long-run equilibrium following the implementation of reform. The policy projections abstract from the myriad of other changes that may affect the Indonesian economy and the environment in which it operates.

Table 3. Projected deviation from baseline of domestic regulatory reform and trade liberalisation (scenario 2)

Year	2022	2026	2031	2050
Period after reform	1	5	10	29
GDP growth	1.56	8.49	15.47	8.27
Actual rate of return	3.18	-0.07	-8.10	-4.62
Target rate of return	-3.30	-6.49	-6.49	-6.49
Expected rate of return	-0.12	-2.86	-7.84	-4.99
Rental rate	3.49	-0.04	-10.45	-11.77
Capital stock	0.82	12.79	27.54	11.72
Investment	19.69	48.95	48.61	4.73
Real return to land	-6.00	-6.29	8.29	24.71
Real return to unskilled labour	4.55	15.51	21.51	8.03
Real return to skilled labour	3.43	13.25	20.11	7.87
Real return to capital	2.60	-0.18	-6.70	-3.85
Real return to natural resources	-4.46	0.09	19.32	24.21
Terms of trade	0.38	0.49	-1.05	-5.98
Exports	-1.40	-1.33	6.99	27.10
Imports	17.18	43.89	45.96	18.64
Trade balance to GDP (percentage points)	-4.2	-9.58	-7.39	0.75
Trade balance (bill. USD)	-46.1	-141.5	-165.1	28.6
Foreign ownership in Indonesia	1.10	10.29	16.56	-0.71
Domestic ownership in Indonesia	1.12	13.13	25.29	3.86
Indonesian investment abroad	-0.22	0.11	0.92	0.68
Foreign interest payment	5.56	10.19	4.03	-6.89
Household payment from foreign asset	-0.30	0.02	0.86	0.51
household consumption	1.64	8.67	15.25	6.51
Government expenditure	0.30	3.45	7.26	4.27

Source: Authors' projections.

In 2022, the impact of a reduction of the required rate of return of around 50 basis points and a 5% across the board reduction in import tariffs is projected. These policy-induced changes lead to an increase in investment from baseline levels of almost 20%. The increase in capital demand amid a lower required rate of return pushes up the rental rate on capital as the demand for capital services exceeds supply. The higher investment contributes to net capital accumulation leading to higher capital stock by 0.82% above baseline levels.

The investment boom is projected to last until around 2026, when investment is projected to rise to 48.95% above the baseline level. However, in 2031, the investment boom slows as investment is higher by only 48.61%. By 2050, the investment boom has tapered off with investment projected to be 4.73% higher compared to the baseline. With higher investment, capital stock rises above baseline levels peaking in around period 10 after the shock, and settling down to be 11.72% higher compared to the baseline in 2050.

There is a projected significant influx of foreign investment, as suggested by the projected increase in inward foreign investment. Simultaneously, Indonesian purchasing of foreign assets is not materially different from baseline levels, as indicated by projected Indonesian investment abroad. This suggests a net inflow of investment overall.

The projected net capital inflow would positively influence current account balances. In the early stages of transition, these balances partly offset by the increases in import costs associated with higher investment spending. That is, as foreign ownership increases in the early stages of transition but not as much as investment and the trade balance goes more negative. However, by 2050, Indonesian exports balance imports, resulting in an overall projected improvement in the trade balance in that year.

Figure 6 shows a clearer picture of the dynamics of the economic transition path. Figure 6 shows the dynamics of the Indonesian economy's deviation from the baseline for selected indicators. For example, panel (e) shows that Indonesian liabilities (foreign inwards investment) rise substantially above baseline levels in the first 5 years. Higher returns on the existing capital base in the earlier in the post-reform period is modelled as being passed through to higher offshore remittances (panel f). As time progresses, lower

returns (with lower require rates) on a higher capital base is projected to be associated with lower remittances offshore. However, in the long run, the price and volume effects balance so that the effects on external account tends towards neutrality, that is, to baseline levels (towards 2050 in panel f).

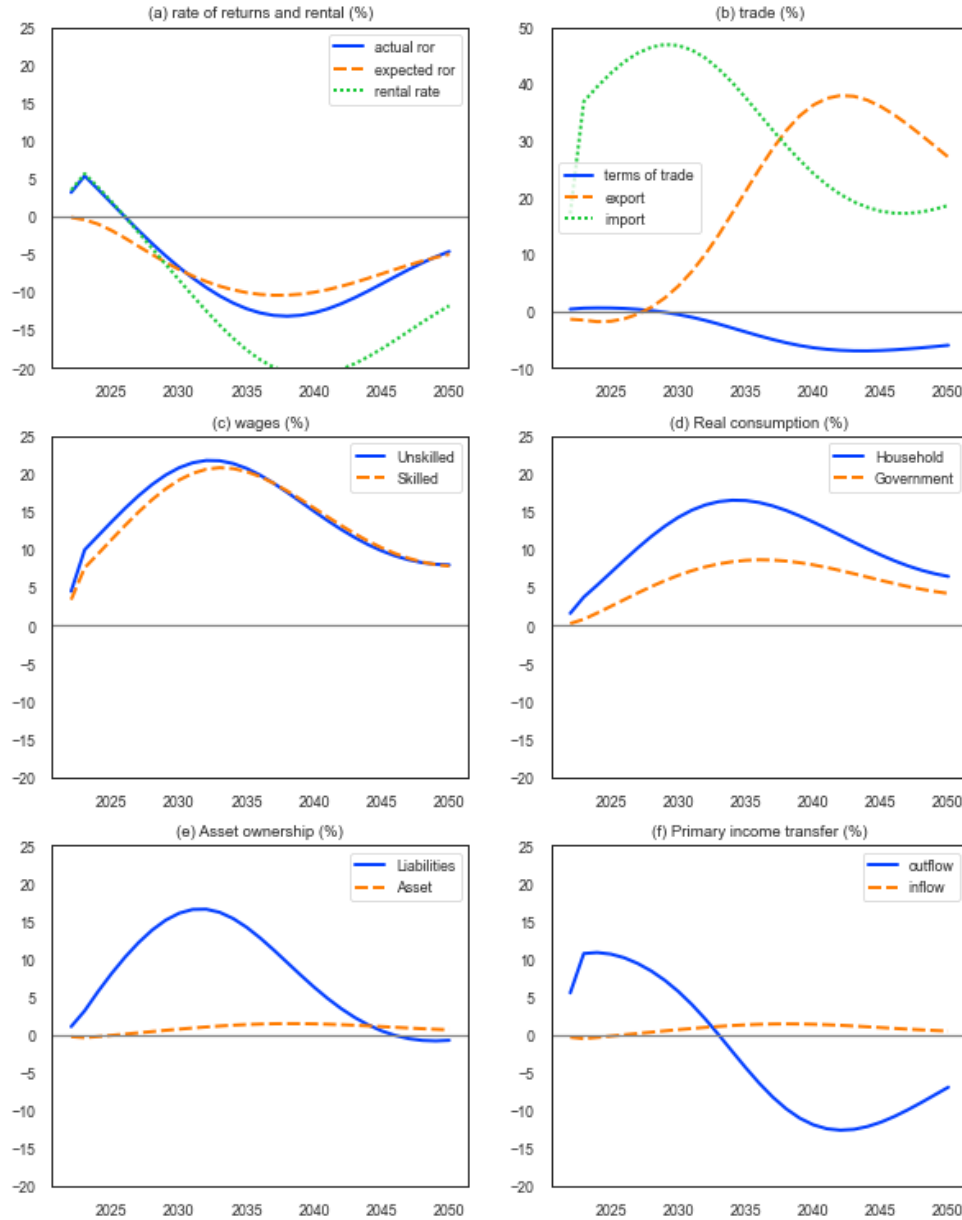


Figure 6. Deviation from baseline of scenario 2 on selected indicators, 2022-2050

Source: Authors' projection

The reforms lead to a permanently lower change in the target rate of return by 6.49% compared to the baseline. This reduction is in line with a 100 basis point reduction of the target rate of return. The target rate of return represents the required rate for investors to be willing to invest in Indonesia. The reduction of this rate raises the demand for capital services relative to supply raising the projected actual rate of return above baseline levels in the early years of the reform period. Higher actual returns place upward pressure on the rental price of capital, raising the demand for capital-goods. As capital accumulates and supply of capital services aligns with demand, the actual rate decreases to adaptively converge to the target rate to fulfill the long run conditions as stated in equations (1) and (2). However, this process occurs over an extended period so that even by 2050 there is some further adjustment required to converge to a new long-run equilibrium.

Panel (c) shows wage growth of blue-collar and white-collar workers, while panel (d) shows growth of household and government consumption. As expected, with the higher investment and GDP, income and consumption is projected to higher than baseline levels. The path of wage growth and consumption growth follows the investment cycle where there is a boom around the first 5 years in the post reform period, and gradual convergence to longer run values, that are higher than the baseline levels.

Sectoral results

Sectoral results of scenario 2 can be seen in figure 7. These results are also shown for the years 1, 5, 10 and 29 after the policy shock. Construction sees the largest increase of all, which is expected since construction is the main capital-goods supplying industry. As investment booms in the early years of adjustment, construction absorbs scarce labour, capital and material factors needed to produce the new capital goods required to meet the investment demand. By 2050, as adjustment towards a new growth path tapers, construction is projected to deviate from baseline levels less than in the initial transition, although with a higher capital stock, the sector is projected to remain permanently above baseline levels.

The shift in resources in favour of capital-goods producing sectors is accommodated by a shift away from other sectors, particularly in the earlier years after the introduction of the reforms. This shift is partly reflected in lower export sales and activity in price-sensitive export industries.

In the long run, sectors such as textiles and apparel, light manufacturing, and heavy manufacturing shows substantial increases in activity as illustrated by the deviations from the baseline in 2050. Exports from these sectors become the main drivers of the shift towards balanced trade balance and as the source of foreign revenue. Likewise, the increase in imports of the products of these sectors tapers off as domestic competitiveness and capacity expands through the addition of new capital capacity. Imports of primary products remain higher relative to baseline levels as materials are sourced to meet new and permanently higher levels of domestic demand.

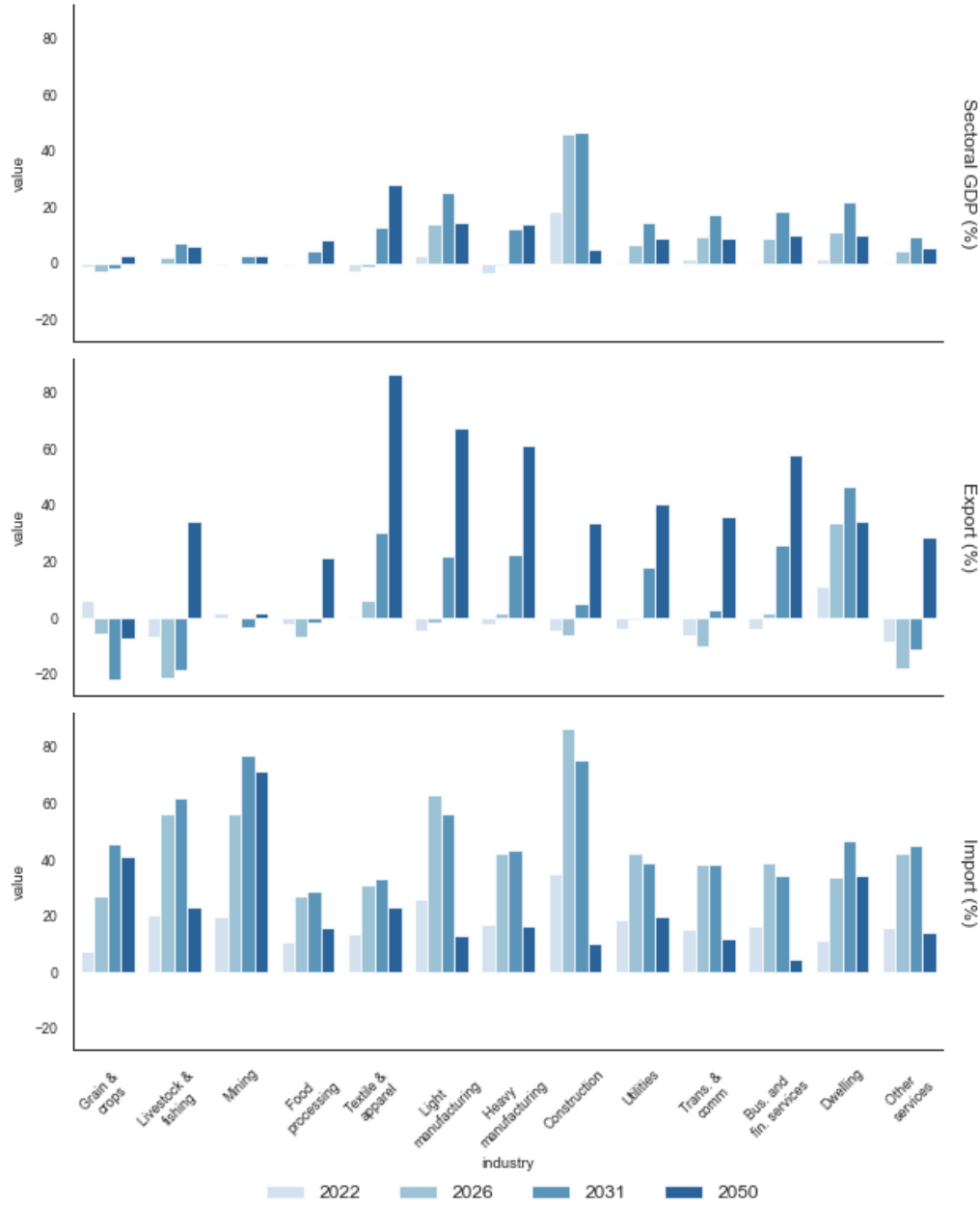


Figure 7. Deviation from baseline of scenario 2 on selected indicators per sector.

Source: Authors' projection

Discussion and Conclusion

The Indonesian economy has been facing new challenges since the AFC. Following the crisis, Indonesia underwent a series of reforms. But the liberalization was short lived as protectionism has re-emerged in the early 2000s. Indonesia adopted stricter trade and labour market regulations as well as a complicated business licensing process amid

various layers of government. The end of the commodity boom as well as the tapering-off of asset purchasing from the U.S. and the Euro zone exposed problems of an over-regulated economy.

The recession caused by the COVID-19 pandemic led Indonesian leaders to promote substantial reform to the economy directed towards improving productivity and raising the competitiveness of local industry. The new law dubbed the Job Creation Law is an omnibus law which consolidates many of Indonesia's existing regulations into just one law. In doing so, it aims to build up a simplified, more centralized business licensing system, relax labour market regulation, and reduce the impediments to trade through an automatic import licensing system, among other things. It is argued that these measures would lead to more domestic and foreign investment, business creation, and more jobs available in the economy.

At the same time, the government is aiming for a reduction of imports by 35% in 2022. We argue that this policy is the result of Indonesia's unwillingness to accept continuous current account deficit (CAD). The policy is, however, at odds with attracting foreign capital, one of the most important aims of the Job Creation Law. The inflow of foreign capital would pressure the current account, especially with Indonesia's import structure consisting mostly of capital goods and intermediate inputs. Without foreign goods and services, there will be a setback to capital accumulation, which would potentially undermine the reform.

This paper is an attempt to provide a justification for allowing a shorter run CAD. We argue that the CAD is in a relatively safe spot compared to the time of the AFC. Additionally, we show that the problem with Indonesia's CAD is coming from net primary income flow and Indonesia's reliance on commodity exports. While building up capital and intermediate inputs may pressure CAD over a transition period, such inputs are needed to enable the potential benefits of economic reform to be realized and to build up more globally competitive industries in the long run.

We emphasize this point using GDyn-FS model simulations, which is a recursive dynamic model of a multi-region, multi-sector CGE model. The GDyn-FS model allows

for a policy simulation where the Indonesian Government successfully implements the Job Creation Law and improves the efficiency of Indonesia's capital market. The better business climate is translated to a lower risk premium, hence a lower required rate of return for investors leading to increased investment, capital accumulation and associated capital service inputs.

Our simulation shows that a permanent reduction of Indonesia's required rate of return of 100 basis points could raise GDP by 8.27% by 2050. The wage level of both skilled and unskilled labour is projected to increase by around 10% compared to the baseline in this year. Household consumption would be around 6.51% larger, while a 4.27% higher government expenditure is also projected by 2050. Meanwhile, reducing imports by 35% is projected to be harmful to the economy and is likely to materially undermine the potential benefits from successful implementation of the Job Creation Law.

This exercise indicates that Indonesia should expect a higher current account deficit, particularly over the transition period. The Indonesian Government should expect a higher negative trade balance by almost 10 percentage points compared to the baseline. The dynamic path of the trade balance follows the path of foreign capital accumulation, which peaks around the same time as the negative trade balance. However, our simulation suggest that the investment boom will cool off in the long run, while the trade balance will be able to support the current account as a result of a more competitive manufacturing sector.

Making sure that the reform goes smoothly is important for Indonesia. Unfortunately, the law itself is controversial amid little public information, less rigid environmental measures, and the possible return to greater centralization. The public backlash, especially from labour unions, may undermine the coverage and depth of the reform. Additionally, the government's speed in making follow-up regulations from the law could also undermine the timing of the reform. More importantly, being too conservative with trade policy will reduce the effectiveness of capital accumulation and prevent successful implementation of the reform.

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