Bulletin of Indonesian Economic Studies

ISSN: 0007-4918 (Print) 1472-7234 (Online) Journal homepage: https://www.tandfonline.com/loi/cbie20

Risks, Resilience, and Reforms: Indonesia's Financial System in 2019

Adam Triggs, Febrio Kacaribu & Jiao Wang

To cite this article: Adam Triggs, Febrio Kacaribu & Jiao Wang (2019) Risks, Resilience, and Reforms: Indonesia's Financial System in 2019, Bulletin of Indonesian Economic Studies, 55:1, 1-27, DOI: 10.1080/00074918.2019.1592644

To link to this article: https://doi.org/10.1080/00074918.2019.1592644

Published online: 24 Mar 2019.

Submit your article to this journal

Article views: 375

View related articles

View Crossmark data

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=cbie20

Routledge
Taylor & Francis Group

Bulletin of Indonesian Economic Studies, Vol. 55, No. 1, 2019: 1–27

Survey of Recent Developments

RISKS, RESILIENCE, AND REFORMS: INDONESIA'S FINANCIAL SYSTEM IN 2019

Adam Triggs
The Australian National University

Febrio Kacaribu
University of Indonesia

Jiao Wang
University of Melbourne

Indonesia has managed the complex challenges of the global economy well. The country's capital outflows were smaller in 2018 than during the Taper Tantrum in 2013; the rupiah had regained most of its lost ground by January 2019; the Indonesian stock market has outperformed its peers; growth is forecast to remain stable; inflation is low; unemployment remains below its five-year average; consumer and business confidence are robust; and the government budget has improved through a smaller deficit and cheaper borrowing costs. But significant risks remain. This paper assesses these risks and evaluates the adequacy of Indonesia's crisis management framework. It finds that the framework has serious deficiencies that could see liquidity challenges become systemic solvency crises. The framework effectively removes Bank Indonesia as the lender of last resort, risks politicising the process of crisis response, and could mean slower, less effective responses to crises. This paper explores how the framework could be improved and what reforms could be undertaken to deepen Indonesia's financial system, strengthen financial resilience, and boost the long-term growth outlook.

Keywords: *Indonesia, crisis management, financial markets, financial crises, government policy and regulation, banks, non-bank financial institutions, bankruptcy, financial reform*

JEL classification: H12, G1, G01, G18, G21, G23, G33, P11

INTRODUCTION

A popular Indonesian folktale character is Si Kancil (the Mouse Deer). Si Kancil is a trickster. But he is also a survivor. In his quest to eat his favourite food, cucumber, he uses his cunning, intelligence, and wit to make his way through a dangerous world. He avoids being consumed by crocodiles, taken by tigers, and filleted by farmers. Regardless of the challenge, Si Kancil always manages to navigate the environment.

Indonesian authorities have probably felt a bit like Si Kancil in recent months. The global economy has produced complex challenges for authorities to navigate, with domestic risks rising and a presidential election looming. Now is a prudent time

ISSN 0007-4918 print/ISSN 1472-7234 online/18/0001-27
© 2019 ANU Indonesia Project
http://dx.doi.org/10.1080/00074918.2019.1592644

to analyse these risks, assess the resilience of the Indonesian financial system, and explore what reforms need to be undertaken to strengthen that resilience.

The global economy contains many risks for Indonesia. Firms and households that borrowed when interest rates were low are being squeezed as rates increase. Those that borrowed in US dollars are being squeezed by a strengthening greenback. Those that borrowed through short-term and portfolio lending are being squeezed by tighter financial conditions, both domestically and globally.

The United States–China trade war is doing some squeezing of its own. The trade war escalated throughout 2018 and is now in a holding pattern. It is uncertain how and when it will end. What is certain is that trade flows and supply chains in Asia are transforming. Some countries, such as Vietnam, appear to be benefiting from increased investment. Others, such as China and many of its trading partners, are beginning to feel the cost of the trade war (Bland 2018). The long-term damage to the trading system will likely be significant (IMF 2019).

The global policy environment is similarly uncertain. The probability of a 'no deal' Brexit is rising. The far-right continues to advance in Europe, Asia, and Latin America. The Trump administration continues to weaken the global rules and institutions that have underpinned much of Asia's prosperity, particularly the WTO's dispute settlement body.[1]

The IMF's forecast for global GDP growth in 2019 has been downgraded, with the weakening growth of emerging and developing economies representing the bulk of the downgrade. But the growth of advanced economies could soon follow. A flattening yield curve and other rule-of-thumb indicators have spurred warnings of a US recession for 2019 or 2020.[2] Limited monetary policy space could see a return to unconventional monetary policy in the United States, triggering a fresh bout of financial volatility for emerging economies (*Economist* 2018).

Much like Si Kancil, Indonesia has navigated these challenges well. Capital outflows saw the rupiah fall 12% against the US dollar in the 10 months to October 2018. But this fall was far smaller than the one during the Taper Tantrum,[3] and the rupiah had almost completely bounced back by January 2019.[4]

Other recent indicators point to a similarly robust performance (table 1). GDP growth for 2019 is forecast to remain steady at 5.1% as Indonesia approaches 20 years of uninterrupted growth (IMF 2019). The Indonesian stock market rose 10% in the 12 months to January 2019, outperforming both the S&P 500 and the Nikkei 500, which both fell during that period.[5] Inflation in January 2019 was at its lowest rate in more

---

1. If current trends continue, the WTO dispute settlement body will plunge into crisis in December 2019. The body will no longer be able to hear and resolve trade disputes unless the US government supports the appointment of new judges to replace those whose terms are expiring. Thus far, however, the Trump administration has shown no desire to do so.

2. These rule-of-thumb indicators include a flattening yield curve, rate tightening by the Federal Reserve, a closing output gap, and the state of the business cycle. See Triggs' (2018a) article for a discussion of each.

3. In the six months to January 2014, the rupiah fell 18% against the US dollar.

4. From 1 October 2018 to 6 January 2019, the rupiah appreciated 9% against the US dollar.

5. The Jakarta Stock Exchange Composite Index (JCI) rose 9.8% between 1 January 2018 and 6 January 2019. Over the same period, the S&P 500 fell 5.7%, and the Nikkei 500 fell 15%.

TABLE 1 *Key Economic Indicators*

	2018				2019*
Indicator	March	June	Sep.	Dec.	January
GDP annual growth rate (%)	5.1	5.3	5.2	5.2	
Unemployment rate (%)	5.1	5.1	5.3	5.3	
Foreign direct investment ($ billion)	5.2	6.2	7.0	3.6	
Business confidence (index points)	106.3	112.8	108.1	104.7	
Consumer confidence (index points, quarterly average)	122.1	125.1	122.9	123	125.5
Manufacturing PMI (index points, quarterly average)	50.6	51.2	51	50.7	49.9
Inflation rate (%, quarterly average)	3.3	3.3	3.1	3.2	2.8
Retail sales (%, quarterly average)	–1.5	4.4	–3.9	.7	.7
Stock market (JCI, quarterly average)	6349.7	6316.3	6290.7	6303.0	6536.0
Currency (Rp:1,000 USD, quarterly average)	0.0734	0.0714	0.0678	0.0683	0.0771
10-year bond yield (%, quarterly average)	6.5	7	7.8	8.5	7.9

Source: Trading Economics (2019).

Note: * Figures are are from monthly data. PMI = Purchasing Managers Index. JCI = Jakarta Stock Exchange Composite Index.

than two years,[6] and unemployment remained below its five-year average.[7] In late 2018, consumer and business confidence remained robust by historical standards,[8] and the government budget improved. The deficit shrank by almost a third in 2018,[9]

6. The inflation rate was 2.8% in January 2019, the lowest since August 2016 (Trading Economics 2019).

7. The unemployment rate was 5.3% in the second half of 2018. The five-year average to end 2018 is 5.7% (Trading Economics 2019).

8. Business confidence was at 108 index points in the third quarter of 2018. The average since January 2016 is 107 index points. Consumer confidence was at 127 index points in December 2018 (Trading Economics 2019).

9. The budget deficit as a percentage of GDP was 1.8% in 2018, down from 2.5% in 2017 and 2016 and 2.6% in 2015 (Trading Economics 2019).

and the cost of financing Indonesia's comparatively low government debt[10] fell by one percentage point after October 2018.[11]

Similarly, Indonesia's political system appears stable, even as 190 million registered voters prepare for the 2019 general election in April. The polls suggest President Widodo will win comfortably (Fealy 2019), beating the same man he beat in 2014, former general Prabowo Subianto.

While the economy has not featured strongly in the extended election campaign, there are reasons to believe that an incoming Prabowo government could see shifts in economic policy. Although Jokowi has by no means been committed to market-based policies, especially in agriculture, a Prabowo government may have a less-favourable attitude towards Indonesia's openness to the rest of the world. While campaign rhetoric may not necessarily translate into government policy, Prabowo has painted himself as a nationalist, implying that Widodo is too friendly to foreigners (McCawley 2018). He called for Indonesia's hosting of the 2018 IMF and World Bank annual meetings to be scaled back to redirect the money elsewhere (*Tempo* 2018). He argued in the first of the five presidential debates that Indonesia's economy lacked self-sufficiency and had become too reliant on foreigners (Lipson 2019).

Prabowo's brother, Hashim Djojohadikusumo, has warned against foreign investment, particularly from China. As part of Prabowo's team, he called for a review of China's involvement in a proposed $5.4 billion high-speed rail link between Jakarta and Bandung (Yuniar 2018). Probowo has criticised Widodo's economic performance, claiming that inequality is rising [12] and citing economic growth below 7%. Probowo has promised to 'save Indonesia from an economic downturn', although he has provided limited detail on how he would achieve that (*Straits Times* 2018). Widodo, on the other hand, has focused much of his campaign on his government's investment in infrastructure projects, ranging from airports to subways, and reduced red tape (McCawley 2018).

In sum, recent developments suggest a stable economy and a stable political system in Indonesia. The question for this paper is, will it last?

RISKS FACING THE ECONOMY AND FINANCIAL SYSTEM

Despite Indonesia's resilience throughout a difficult period, risks remain. Three areas in particular warrant special attention: financing of infrastructure by state-owned enterprises (SOEs), liquidity in the banking sector, and financing in the public and private bond markets.

---

10. Gross central government debt in Indonesia was 29.8% of GDP in 2018, compared to an average 46.9% for emerging market and developing economies, 47% for emerging and developing economies in Asia, and 105.6% for advanced economies (IMF 2018).

11. The yield on 10-year Indonesian government bonds rose from 6.25% in January 2018 to 8.75% in October 2018, then fell to 7.75% in January 2019 (Trading Economics 2019).

12. The most recent data, however, suggests that inequality has fallen in Indonesia. Based the Susenas data, the Gini coefficient fell from 0.41 in 2014 to 0.38 by the end of 2018. See also Tjoe (2018).

TABLE 2 *Financial Ratios of SOEs Involved in Toll Road Construction & Management, 2014/2018*

	Waskita Karya		PT PP		Hutama Karya		Adhi Karya		Wijaya Karya	
Metric	2014	2018	2014	2018	2014	2018	2014	2018	2014	2018
Debt (trillion Rp)	3.2	61.7	14.6	48.6	5.0	40.2	10.5	28.3	3.0	14.7
Debt-to-equity ratio (%)	111.2	353.6	113.7	72.4	504.7	322.1	138.9	134.4	78.0	111.4
Return on equity (%)	23.2	33.1	22.3	11.9	14.8	12.5	18.9	11.1	15.1	11.0
Current ratio (%)	136.2	123.5	136.9	151.7	144.9	108.2	130.2	141.2	111.9	157.1
Interest coverage ratio (%)	3.9	3.4	2.4	2.9	2.0	1.8	5.6	3.4	6.0	3.0

Sources: SOEs' financial statements; Pefindo reports; Investing.com.

State-owned Enterprises and Infrastructure Financing

Widodo introduced a plan in 2014 for infrastructure development. The National Strategic Projects (PSN) scheme included toll roads, seaports, airports, power plants, and clean water projects, costing Rp 4,796 trillion ($363 billion) from 2014 to 2019 (Morris and Tsjin 2015). About 40% of the financing for these projects was to come from the government budget. The remaining 60% was to come from SOEs, and the private sector (Amin 2016).

In the first four years of Widodo's administration, however, almost all the seaports, airports, toll roads, and power plants were built by SOEs. As a result, the SOEs have become considerably more indebted. For many, this increased leverage is a cause for concern. Should these firms experience liquidity or solvency problems, this could quickly become systemic throughout the financial system.

We see a varied picture when looking into the financial reports of Indonesia's major SOEs, particularly those involved in the construction of toll roads (table 2), seaports and airports (table 3), and power plants (table 4). To provide some insights into the health of these SOEs, given their increased leverage, we consider four basic metrics: the debt-to-equity ratio (DER), the return on equity (ROE), the current ratio, and the interest coverage ratio.

The DER measures the importance of debt in the capital structure of a firm. Normally, the more a firm borrows, the higher the return on its existing equity. The ROE is the ratio between the net income and the equity of a firm. A higher DER implies that a firm uses more debt to finance its growth, which exposes the firm to a higher credit risk. In the short run, if the cashflow generated does not keep up with the schedules for interest and principal repayments, liquidity problems (i.e., a shortage of cash or assets that can easily be converted into cash) could arise.

TABLE 3 *Financial Ratios of SOEs Involved in Airport & Seaport Construction & Management, 2014/2018*

	Angkasa Pura I		Angkasa Pura II		Pelindo I		Pelindo II		Pelindo III	
Metric	2014	2018	2014	2018	2014	2018	2014	2018	2014	2018
Debt (trillion Rp)	5.3	11.3	3.2	11.2	1.8	3.6*	12.1	33.2*	9.5	14.4*
Debt-to-equity ratio (%)	50.6	79.9	24.9	47.1	60.2	73.5*	123.2	238.5*	132.9	131.3*
Return on equity (%)	9.5	7.7	15.1	4.2	22.6	29.4*	16.0	18.8*	23.8	28.5*
Current ratio (%)	97.1	130.0	85.3	171.2	203.3	121.2*	156.9	468.8*	299.6	132.3*
Interest coverage ratio (%)	11.9	6.1	28.0	8.4	—	—	—	—	17.6	6.8

Source: Companies' financial statements.

Note: * Data is from 2017.

In the longer term, if the interest expense grows faster than the generated income, solvency becomes a problem.

To gauge a liquidity problem, we can look at the ratio between a company's current assets and its current liabilities; this is called the current ratio. The current ratio measures the company's ability to pay its short-term liabilities. A ratio below one implies that the company does not have enough liquid assets to cover its short-term liabilities. On the other hand, to assess the ability of a firm to pay interest on its outstanding debt, we can use the interest coverage ratio, which is the ratio between earnings before interest and tax (EBIT) and the interest expense.

Considering the companies involved in constructing and managing toll roads, we see that the total debt of these companies increased by Rp 157 trillion during 2014–18. At the same time, the total equity increased by Rp 103 trillion, with the government injecting most of it. Waskita Karya's debt grew the fastest. Its debt of Rp 61.7 trillion in the third quarter of 2018 was about 19 times larger than in 2014. This pushed its DER from 111% in 2014 to 354% in 2018. The DER of PT PP, on the other hand, decreased from 114% to 72% even though its debt tripled in the same period (it received most of the equity injected by the government).

Like Waskita Karya and PT PP, Hutama Karya has been heavily commissioned by the government to build toll roads. Among its main assignments is the ambitious Trans–Sumatra toll road. Hutama Karya's DER fell from 504.7% in 2014 to 322% in 2018 even though its debt increased by eight times. Like PT PP, Hutama Karya has had a sizeable amount of equity injected into it by the government.

Given the increase in leverage, the profitability of these SOEs has been strong. Quite uniformly, their profits declined from 2014 to 2016 but improved in 2017

TABLE 4 *Financial Ratios of Pertamina & PLN, 2014/2018*

	Pertamina		PLN	
Metric	2014	2017*	2014	2018
Debt (Rp trillion)	395.3	369.7	454.1	543.4
Debt-to-equity ratio (%)	169.4	114.9	296.2	64.5
Return on equity (%)	14.3	15.8	7.2	–3.0
Current ratio (%)	149.1	183.6	97.6	61.7
Interest coverage ratio (%)	—	—	0.3	0.4

Sources: Pertamina's and PLN's financial statements.

Note: * Data for Pertamina in 2018 was not available.

and 2018. All had an ROE below 10% in 2016, with Hutama Karya's ROE being the worst, at 4%. Nevertheless, their ROEs improved in 2017 and 2018, and the firms now enjoy ROEs of above 10%, with Waskita Karya's ROE exceeding 33% in 2018. This means that, in general, while these firms have become more indebted, their profitability has increased.

Moreover, these firms have a current ratio that is above 100%, which suggests that they have a good ability to repay their liabilities in the short run. Over the long term, however, most of these SOEs have not shown any signs of solvency problems.

The next group of SOEs to consider are those involved in the construction and management of new airports (Angkasa Pura I and II) and new seaports (Pelindo I, II, and III) (table 3). Like the SOEs involved in the construction of toll roads, these firms have increased their leverage in the past four years. Greater leverage has helped Pelindo I, II, and III to increase their profitability. The ROEs of Angkasa Pura I and II, on the other hand, have decreased in the past four years. Despite the strong growth of the airline industry, the fee-dependent business model of the airports has resulted in a slower increase in their net income relative to their operational costs and the additional interest expenses from their higher debt burdens.

The short-term liquidity of SOEs involved in airports and seaports is generally good. Interestingly, despite the high debt levels and decreasing profitability of Angkasa Pura I and II, both have prudently managed their credit risk by increasing their current ratios. All the firms' interest coverage ratios are also relatively high, despite the sharp decline from 2014 to 2018.

State electricity company PLN is an outlier among the infrastructure-related SOEs (table 4). It is the biggest SOE in Indonesia, with Rp 1,386 trillion in assets. Along with state oil and gas company Pertamina, PLN is the main vehicle for the government's energy subsidy policies.[13] The government has injected a significant amount of equity into the company, especially for the development of its

13. See Burke and Kurniawati (2018) for the most recent discussion on the electricity sector and electricity subsidy policy reform in Indonesia.

35,000-megawatt power plant, which was initially projected to be completed in 2019. The ambitious deadline will not be met and will be extended to 2024 (Amelia 2019).

Even though PLN has increased its borrowing in the past four years, the government's equity injections have been dominating the dynamics of the company's capital structure in the past four years. The company significantly decreased its leverage ratio to 65% in 2018. However, in the short run, its profitability has deteriorated significantly, it has less liquidity, and it is struggling with solvency. Without any major government policy reform, PLN will likely continue down this path. Given that PLN is the main conduit for the government's energy policy, this poses risks for the government budget and debt management.

Pertamina's involvement in government infrastructure projects centres on the development of oil refineries, which come with a substantial cost. The construction of the Tuban and Bontang refineries is to commence in 2019. They will be funded through a business-to-business scheme. Meanwhile, the increase in oil prices in 2016–18 has helped Pertamina reduce its debt and pay dividends to the government.[14] Despite the high burden that comes from the government's energy subsidy policy, the company's profitability continues to increase.

In sum, most SOEs in Indonesia have become more highly leveraged even though they have reported profitability (partly because of government assistance), with high returns on their equity and sufficient ability to repay their short-term debt. This reliance on leverage to finance infrastructure spending, however, is concerning.[15]

Banking Sector Liquidity

The Indonesian banking sector is highly capitalised. The capital buffers of Indonesian banks far exceed what is common in the Asia Pacific and what is required under Basel III.[16] At the same time, the proportion of non-performing loans (NPLs) has been low and is decreasing. Both these indicators suggest that Indonesia enjoys a solvent banking system.

The NPL ratio of the banking sector fell to 2.65% in October 2018, after trending upward from 2013 and peaking at 3% in the third quarter of 2016. The slight decrease in 2018 was largely due to the relatively strong growth of loans, at 13.4% year on year through October 2018, while the proportion of NPLs remained fairly constant, at around Rp 130 trillion.

Looking across sectors, we see no clear trend in the proportion of NPLs, which increased slightly and then decreased in some sectors but not others in 2014–18. Companies in wholesale and retail trade and the manufacturing industry were the largest borrowers by far, owing about Rp 965 trillion and Rp 859 trillion, respectively, in October 2018 (figures 1 and 2). The NPL ratios ranged from about

14. A stronger US dollar and a higher oil price have helped the government's budget. The government receives as much as Rp 1.7 trillion in additional net revenue for each Rp 100 of depreciation in the rupiah against the US dollar, and an additional Rp 660 billion for each $1 increase in the crude oil price (Azka 2018).

15. This is not intended to be an exhaustive evaluation of the performance of SOEs in Indonesia. Many more SOEs are not covered in our discussion. The recent surge in the role of SOEs in Indonesia's economy is another issue.

16. Banking statistics in this section are from the November 2018 edition of 'Indonesia Banking Statistics' (OJK 2018).

3% to 4% in wholesale and retail trade and from about 2% to 3% in manufacturing over the five years.[17]

The concern about the Indonesian banking system now, however, relates to liquidity. This is particularly problematic for the smaller (non-BUKU 4) banks (those with less than Rp 30 trillion in capital).[18] Relatively high demand for loans in 2018, coupled with strong portfolio capital outflow, has reduced liquidity in the banking system.[19] Loan-to-deposit ratios (LDRs) increased in 2018, reaching 93.8% in October 2018.

BUKU 3 banks (those with Rp 5–30 trillion in capital) have been hit the hardest. Their LDRs were consistently around 103% in 2018. It should be noted, however, that the high LDRs, especially in BUKU 3 banks, have been inflated by the extremely high LDRs of joint ventures and foreign banks, which receive funding from their parent companies. But the rate at which LDRs have been increasing is a cause for concern.

Whether portfolio capital returns in the near future, and whether the Indonesian authorities can maintain sufficient liquidity, will be key to mitigating the risk of high LDRs. In October 2018, portfolio capital inflows began to resume,[20] and the inflow of foreign direct investment (FDI) is likely to stabilise at its medium-term level of $12–16 billion per year. If this trend continues, the threat of a liquidity crunch will ease for many Indonesian banks. The recent decrease in liquidity, however, highlights a key susceptibility of the banking system. Now is the time to focus on consolidating Indonesia's smaller banks, ensuring that the regulatory framework is sufficient to provide emergency liquidity in the event of a broader liquidity shortage.

Public and Private Debt

Indonesia's government debt remains low, even compared with other emerging economies (figure 3). The country's reliance on foreign-denominated borrowings and short-term borrowings has been stable, which has helped to reduce risks from currency and maturity mismatches (IMF 2017). But the high proportion of government debt that is held by foreigners creates risk, as does the increase in short-term borrowings by non-financial corporations. In the event of a sudden outflow of capital, both these developments could create a liquidity problem in the banking system.

Government debt was Rp 4,400 trillion ($295 billion) at the end of the third quarter of 2018 (figure 4). It grew by 14.2% year on year compared with the third quarter of 2017. Much of this change was caused by the sharp depreciation of the rupiah against the US dollar in the same period—a depreciation of almost 10% (CEIC 2019). However, the ratio of rupiah-denominated debt to foreign-currency-denominated

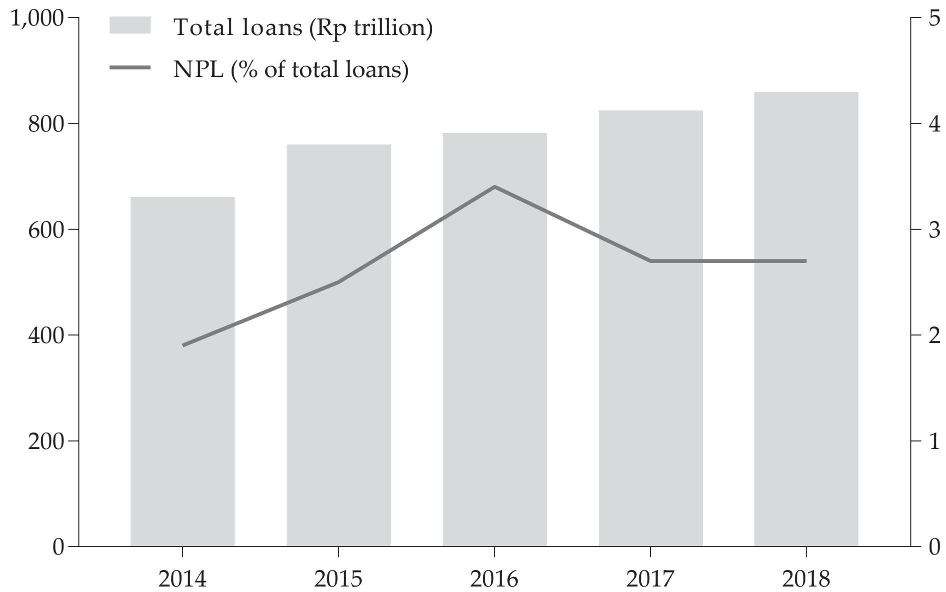
17. They were lower in agriculture and construction and slightly higher though more variable in transport.

18. BUKU 4 banks are the largest banks in Indonesia, and BUKU 1 banks are the smallest.

19. Credit growth reached 12% (year on year) in October 2018, following a bad single-digit performance in 2016–17.

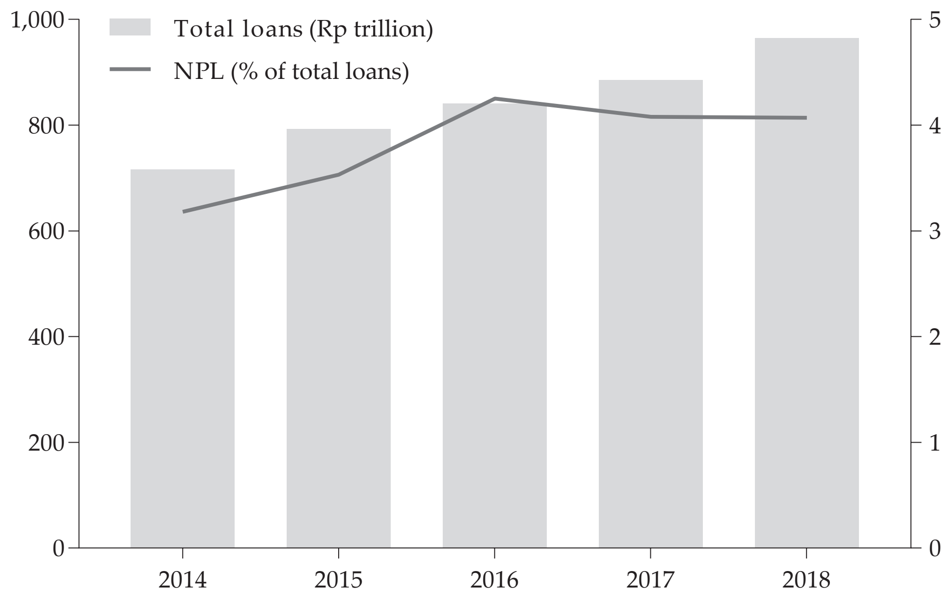
20. LPEM FEB UI (2019) indicates a $10–12 billion portfolio capital net inflow for 2019.

FIGURE 1 *Loans (lhs) & NPLs (rhs): Wholesale and Retail, 2014–18*



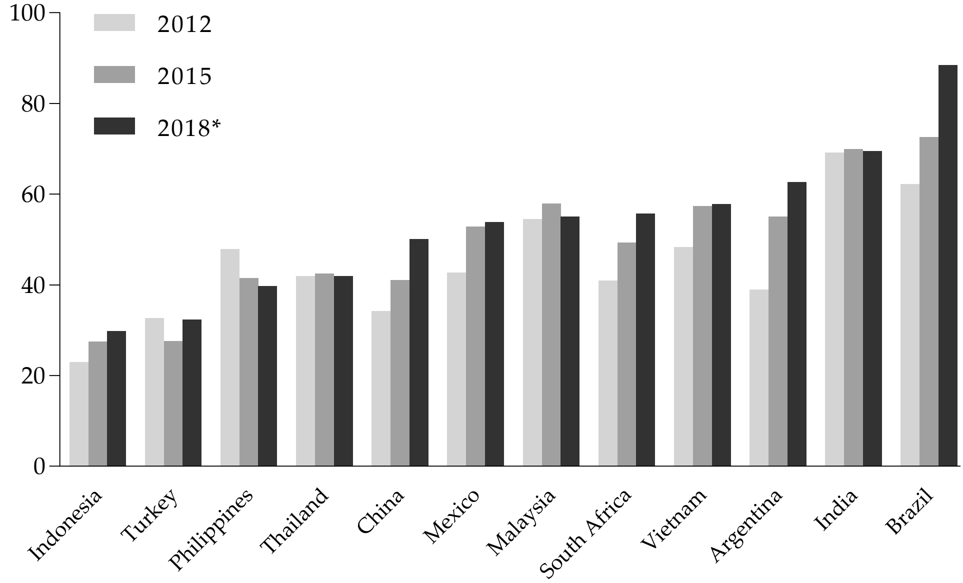
Source: OJK (2018).

FIGURE 2 *Loans (lhs) & NPLs (rhs): Manufacturing, 2014–18*



Source: OJK (2018).

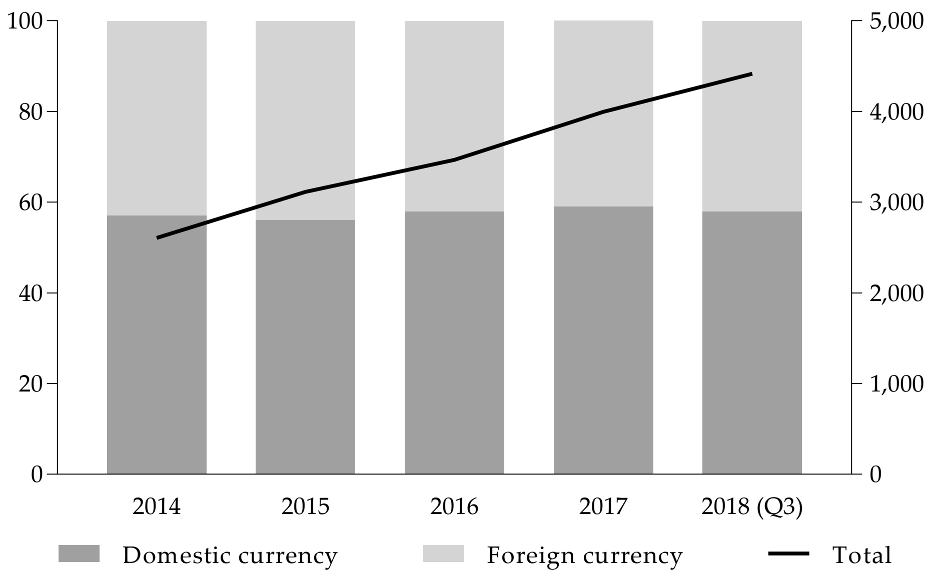
FIGURE 3 *Debt-to-GDP Ratios of Selected Emerging Countries (%)*



Source: IMF (2018).

Note: * Where 2018 data was unavailable, the latest data was used.

FIGURE 4 *Central Government Debt by Currency, Q3 2014–18 (%; Rp trillion)*



Source: Bank Indonesia (2018).

debt improved to 58:42 in the third quarter of 2018, slightly better than the ratio of 57:43 recorded in 2014 (figure 4).

The trend for non-financial corporations was similar. They increased their foreign-denominated borrowings in the second half of 2018 after avoiding foreign-denominated debt in the first half of the year due to the uncertainty caused by the strong depreciation of the rupiah. The interest rate differential between borrowing in foreign currency and borrowing in domestic currency had widened substantially,[21] which brought the ratio between rupiah and foreign exchange debt to 39:61 (Bank Indonesia 2018).

The government has consistently acquired only 3% of its debt through short-term borrowing. On the other hand, non-financial corporations significantly increased their short-term borrowings in 2018. The ratio of short-term to long-term borrowings by non-financial corporations increased from 13:87 to 19:81 over 2018. This represents a Rp 60 trillion increase in new short-term debt in the first three quarters of 2018 (Bank Indonesia 2018). A sharp withdrawal of capital could create a broader liquidity challenge in the financial system.

One of the biggest risks in the financial market, however, arises from the government bond market. Around 80% of the government's debt is in the form of securities. These are mostly marketable, amounting to about Rp 3,600 trillion at the end of 2018. In January 2018, 41% of these bonds were held by non-resident investors. This had dropped to 37.7% by the end of 2018 (LPEM FEB UI 2019), but it remains high. Having such a high proportion of government debt held by foreigners could create problems if outflows of capital were to suddenly increase and the foreign owners of bonds were to sell their assets. Such an outflow would create a critical liquidity shortage in a vital market in the Indonesian financial system and could potentially cause a broader liquidity crunch in the banking system.

Speeding up the process of financial deepening and financial inclusion are crucial to prevent such a liquidity crunch. Short term incentives, such as the negative Tobin tax recently implemented by Bank Indonesia (BI) and the Ministry of Finance, could help in the short term by limiting the speed of the reversal in capital flows if a sudden stop occurs.[22]

RESILIENCE: IS THE NEW CRISIS FRAMEWORK UP TO THE TASK?

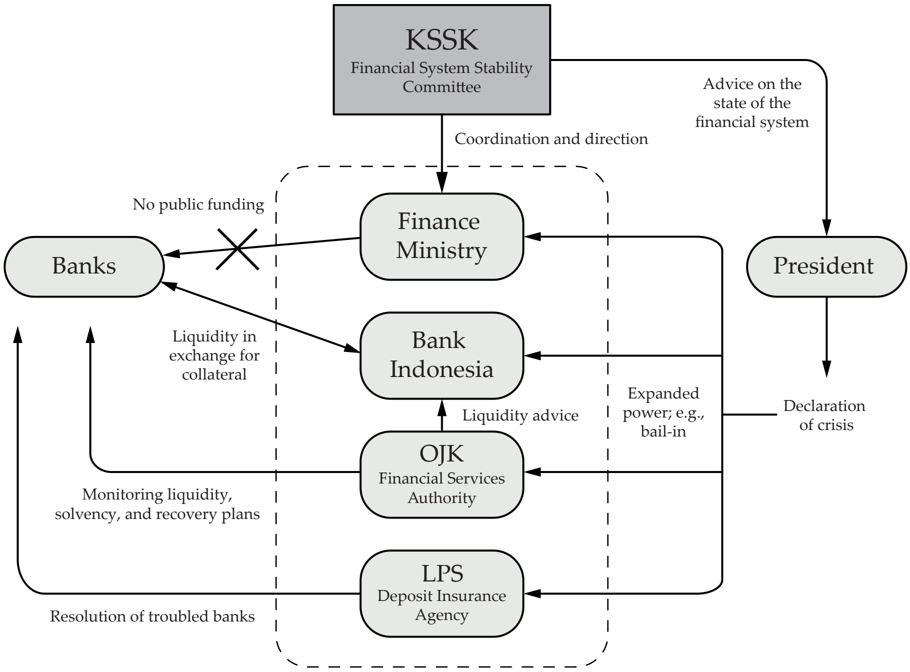
The government passed Law 9/2016 on Financial System Crisis Prevention and Mitigation (PPKSK) in 2016. Its purpose is to prevent and respond to financial crises through better preparation, and through cooperation between Indonesia's regulators and institutions. The law delegates responsibility to seven key entities (figure 5).

---

21. The yield differential between 10-year rupiah government bonds and 10-year US treasury bonds increased from 383 basis points in January 2018 to 553 basis points in October 2018; this yield differential has been stable at around 500 basis points.

22. Sudden stops happen when a currency/balance-of-payments crisis is accompanied by a reversal in capital flows. See Hutchison and Noy (2006) for a discussion of how this causes currency crises and output loss in emerging markets.

FIGURE 5 *Summary of the PPKSK Law*



Source: Prepared by the authors based on consultations with Indonesian authorities and analysis by the IMF (2017).

At the centre of responsibility under the law is the Financial System Stability Committee (KSSK). Its role is to coordinate and direct Indonesia's four key crisis-response agencies to prevent, prepare for, and respond to financial crises (von Allmen and Kang 2018). These four agencies are the Ministry of Finance, BI, the Financial Services Authority (OJK), and the Deposit Insurance Agency (LPS).

The KSSK meets formally every three months. A major role of the KSSK is to work with agencies to identify which banks are systemically important to the Indonesian economy, so that they do not need to be identified in the heat of a crisis (von Allmen and Kang 2018). The law only applies to these systemically important banks and seeks to clarify the roles agencies would play in a crisis. The KSSK has facilitated a substantial improvement in the sharing of information and data between agencies and has helped in cross-agency collaboration (IMF 2017). But the KSSK is not just a coordination body; it is also responsible for designing the overall resolution strategy and directing member agencies in the implementation of that agreed strategy (IMF 2017).

The second entity under the law is the Ministry of Finance, which coordinates the activities of the KSSK. The law prevents the Ministry of Finance or any other government agency from using public funding to bail out troubled banks (IMF 2017). Instead, the law requires troubled banks to be 'bailed in'. A bail-in is where a failing bank's creditors become shareholders and the resolution authorities terminate or write down the bank's unsecured liabilities, converting creditors' unsecured claims into equity (Dell'Ariccia et al. 2018; FSB 2014). Banks are expected to have enough assets and enough flexibility in their debt instruments to allow them to stabilise in a crisis (von Allmen and Kang 2018). Under the law, banks are required to have recovery plans. These plans should detail how the banks' bail-in arrangements would operate in a crisis, including which assets they would sell, which subsidiaries they would remove from their holding groups, and how they would restructure their debt positions (IMF 2017).

Unless the law is changed, the Ministry of Finance is also constrained by Indonesia's existing fiscal rule for crisis management,[23] assuming that the extent of the bailouts is reflected in the budget. This fiscal rule prevents the government from running budget deficits that exceed 3% of GDP. If this limit is exceeded, the president can be impeached (Lledó et al. 2017). This further constrains an already rigid government budget. For example, about 26% of government revenue must be transferred to regional governments (Blöndal, Hawkesworth, and Choi 2009). Similarly, the Constitution mandates that 20% of revenue be allocated to education. There are many examples of tax revenues that are prospectively earmarked for particular functions (e.g., the revenue from forestry fees must be dedicated to reforestation activities) (Blöndal, Hawkesworth, and Choi 2009).

The third entity under the PPKSK law is BI. Under the law, BI can only provide emergency liquidity assistance to a troubled bank if two conditions are met. First, the troubled bank must provide collateral of commensurate size before BI can assist it. Second, the OJK, the fourth entity under the law, must analyse the situation and advise BI that the systemically important bank needs assistance (von Allmen and Kang 2018).

The OJK was established in 2011 as an integrated regulator of the financial sector. It assumed oversight of the capital markets and the non-bank financial institutions in 2012, and of the banks in 2013.[24] In this capacity, it regulates and supervises financial services in banking, capital markets, and the non-bank financial sectors (OJK 2019).

Under the law, the OJK monitors the financial sector and reports its health and developments to the KSSK. As part of this, the OJK undertakes supervisory stress tests to identify weaknesses in the financial system. It also monitors the banks' recovery plans to determine whether the banks could support themselves in a crisis and whether they are eligible for a bail-in (von Allmen and Kang 2018; IMF 2017).

The fifth entity under the law is the LPS. It was established in 2004 to insure depositors' funds and to resolve the financial difficulties of banks and financial institutions by using funds raised through a bank levy (IMF 2017). Under the law, the LPS cannot use public funds to resolve the difficulties of a bank or financial institution. It must rely on its own resources and its bail-in powers discussed above. These powers, however, are only available if the sixth entity under the law, the president, declares a 'status of financial system crisis'.

23. Set out in Law 23/2003 on State Finance Law and Government Regulation.

24. These functions were previously the responsibility of Bapepam-LK and BI, respectively (see IMF 2017).

A major role of the KSSK is to advise the president about whether a financial crisis is occurring or is imminent. If the KSSK believes either to be the case, it can advise the president to declare a status of financial system crisis (von Allmen and Kang 2018; IMF 2017). Once this declaration is made, a wider range of resolution powers, such as bail-in powers, becomes available to the relevant agencies under the law.

The banks themselves compose the final and most important entity under the law. The law imposes several requirements on the systemically important banks. They are required to develop recovery plans and to issue debt that would cover a contractual bail-in, allowing them to convert debt into equity in the event of a crisis.

Shortcomings of the PPKSK Framework: A Hypothetical Crisis

The shortcomings of the PPKSK law become clear when a hypothetical crisis is considered. Suppose that, as a result of any of the risks explored earlier, a systemically important Indonesian bank were to suffer a liquidity crisis. How would this situation be resolved under the PPKSK law?

Ordinarily, BI would be responsible for deciding whether emergency liquidity assistance should be provided to the bank. If BI were to decide that assistance would be warranted, it would provide it, as it has during previous crises (discussed later). Under the PPKSK law, however, the decision rests with the KSSK. The process would proceed as follows.

First, the OJK is required to prepare advice and analysis for the KSSK on whether the bank is facing a liquidity challenge and whether liquidity support should be provided. Second, the KSSK (and its four agencies) must agree with this analysis and agree that liquidity support is necessary. Third, BI must enter into discussions with the relevant bank to confirm to the KSSK that the bank has adequate collateral to cover the value of the liquidity support. The practical challenge here is that the value of the bank's assets may be declining if the market is aware of the problems facing the bank, or the bank may be selling assets to bolster its liquidity base. It is only if these requirements are satisfied that emergency liquidity assistance can be provided.

Although it is not prescribed in the law, it is likely that two other steps could be taken throughout this process. First, the KSSK might request that the Indonesian banks with enough capital and liquidity, or foreign parent banks or shareholders, provide the required liquidity assistance rather than BI. Historically, this has been unsuccessful (see next section) because banks are generally reluctant to reduce their own capital buffers to assist another bank, particularly if they are experiencing balance sheet stress themselves.

Second, the KSSK might seek political cover before any liquidity support is provided, given the historical sensitivities around such bailouts. This could involve briefing the president directly on the situation and seeking his approval before any decision is made.

This scenario raises two major concerns. The first is that the potentially significant delays in this bureaucratic process could result in a relatively benign liquidity problem becoming a systemic solvency challenge. The longer the bank's liquidity shortfall persists, the more alert and alarmed investors may become (Davis 2008). As the value of the bank and its assets fall, and shareholders and depositors withdraw their stakes, the bank's balance sheet could quickly become insolvent.

In short, the concern is that the law has effectively removed BI as the lender of last resort, at least in any immediate sense.

Under the PPKSK law, the progression of a liquidity problem to a solvency problem would shift the onus of responsibility from BI and the OJK to the resolution authority, the LPS. It, however, has insufficient funds to resolve the financial problems of a systemically important Indonesian bank (Rahadiana and Ho 2017), and the law prevents it from using public funds in its resolution process. Its bail-in powers are also not available unless the president declares a status of financial system crisis. The concern is that, by the time the president makes such a declaration, the value of the bank's assets, including its subsidiaries, may have significantly declined in value, and shareholders and depositors may have withdrawn their stakes from the bank. This could mean that a bail-in would be an unrealistic policy response, given the size of the challenge. Although Indonesia's banks are well-capitalised, the strength of that capital is often not known until a crisis occurs (Hagendorff and Vallascas 2013). This could mean that a bank's recovery plan, which should detail how the firm would rescue itself in a crisis, may not be effective in reality.

The second concern, which underpins many of the above concerns, is that the PPKSK law and the KSSK committee undermine the independence, authority, and responsibility of its four central agencies. And while any bank bailout in any country attracts significant political attention, following the crisis management process outlined in the PPKSK law would risk further politicising the already complex and technocratic process of crisis response. Agencies are prevented from responding to the situation as they normally might. Instead, they are required to act in accordance with what has been agreed between the four agencies under the KSSK. Whether BI can provide support depends on advice from the OJK and the KSSK. The size of this support depends on the availability of collateral. The LPS's actions depend on the actions of the KSSK and the president. Support from the finance ministry is ruled out and therefore depends on changes to the law. All these contingencies mean individual agencies are unable to act quickly and may be unable to take responsibility for supporting or resolving the financial trouble of banks. Addressing this lack of individual responsibility, however, was a major aim of the PPKSK law in the first place.

The Long Shadow of the Bank Century Bailout

The PPKSK law is difficult to understand without the context of the 2008 Bank Century bailout. Bank Century, as it was then known, was the 13th largest bank in Indonesia. In late October 2008, Bank Century began experiencing serious liquidity problems. The bank's management requested a $108 million short-term loan from BI. BI provided the assistance and put Bank Century under a special monitoring status in November. On 20 November, however, when Bank Century was reported as having a negative capital adequacy ratio, the government decided that emergency measures were necessary. The government seized the bank and gave itself five years to nurse it back to health and then sell it. A few days after the bank's seizure, one of the bank's cofounders, Robert Tantular, was arrested and later found guilty of issuing fake letters of credit (*Wall Street Journal* 2008).

The bailout had a sizeable economic cost of about $700 million (McLeod 2010). But it also had a substantial political cost. The bailout led to riots outside the parliament building. Members of Parliament instigated numerous investigations on top of those already under way. The targets of the investigations included numerous government officials, such as the then (and current) finance minister, Sri Mulyani, and the then BI governor, Boediono. Parliament held a vote on whether the bailout was warranted. The result was a resounding vote of no confidence in the government (*Wall Street Journal* 2008).

A key consequence of the Bank Century bailout has been nervous Indonesian officials. Having faced a barrage of investigations, senior officials in the four KSSK agencies reported that they would be less likely to act if another bank or financial institution were to require support, and that the PPKSK law was drafted for this reason.[25] The law deliberately absolves agencies and officials from independent responsibility for bank bailouts. It ensures that all agencies and officials are required to collectively make decisions. The law provides them with political and institutional cover if a bailout is necessary, rather than relying on individual agencies to implement specific mandates.

The consequence of this is that the response to a crisis is likely to be slower and less decisive. Liquidity shortfalls can fast become solvency crises under this framework, which, depending on the bank, can quickly become systemic challenges for Indonesia's financial system. The PPKSK law, in short, increases the political cover for officials at the cost of increased systemic risk in the financial system.

The Inadequacy of Regional and Global Safety Nets

This raises the question of what external support would be available to Indonesia in a crisis. A growing body of research has highlighted the inadequacies of the regional and global safety nets available to Asian economies (Sterland 2017). These inadequacies, combined with Indonesia's poor history with the safety nets, would make for particularly complex political and economic considerations if Indonesia were to require external assistance in the future.

Indonesia has turned to regional and global safety nets in the past.[26] During the Asian financial crisis, Indonesia entered an IMF program that, according to many analysts, did more harm than good (Krugman 2009). What was perceived as bad advice and unnecessary conditionality from the IMF has created stigma among Indonesian officials and the public about going to the IMF for assistance. When Indonesia faced financial hardship during the GFC and the Taper Tantrum, Indonesia's authorities exhausted almost every option to avoid engaging the help of the IMF. The government secured a combination of loans and bilateral swap lines with Australia, Japan, and Korea. It obtained a liquidity line with the Asian Development Bank (ADB) and has since expanded its swap lines with other countries in the region, particularly China.

Indonesia would, it seems, have several options in a crisis. It could access resources from the IMF, the World Bank, the Chiang Mai Initiative Multilateralization (CMIM), and the ADB, and it could draw on its swap lines

25. Senior KSSK officials agreed to be interviewed for this paper on the condition that they would remain anonymous.

26. The analysis and data in this section draws on Triggs' work (2018b).

with Japan ($22.7 billion), China ($15 billion), Korea ($10 billion), and Australia ($8 billion). Indonesia also has foreign exchange reserves of around $130 billion.

But once economic, political, and institutional constraints are accounted for, Indonesia's options are more limited. Indonesia would be unlikely to seek funding from the IMF, because of the country's bad history with the organisation, and the World Bank rarely provides liquidity support outside of an IMF program. The CMIM is untested and considered by many to be unreliable (Sterland 2017), and liquidity support from the ADB cannot be guaranteed. This leaves Indonesia to rely on a patchwork of loans and bilateral swap lines with countries in the region. But even these may not be available in a crisis. The Reserve Bank of Australia, for example, has cautioned countries that swap lines with Australia are available only when there is a shortfall in foreign exchange (e.g., for trade finance) and would not be made available if a country were facing balance-of-payments difficulties. Other central banks have made similar statements.

Other Shortfalls in Indonesia's Regulatory Framework

There are several other challenges facing Indonesia's regulatory framework, discussed in detail by von Allmen and Kang (2018). The OJK faces a particular challenge in regulating financial conglomerates. Most financial conglomerates in Indonesia have a horizontal structure that includes banks, insurers, and other subsidiaries that are subject to regulation. The holding company that controls the group, however, is often unregulated. The lack of a regulated body with clear ascendancy over all the entities that form a conglomerate poses important challenges for the consolidated supervision of the conglomerate. The OJK has been trying to address this problem by nominating a financial institution, usually a bank, as the lead entity of conglomerates. However, this kind of lead entity lacks the legal authority to impose the OJK's regulatory requirements on the group, and company law requirements may hinder information flows (von Allmen and Kang 2018).

BI is playing an increasingly important role in macroprudential policy, which is important for bolstering financial stability and preventing the formation of asset price bubbles (Warjiyo 2017). But BI's mandate is not clearly defined in legislation (IMF 2017). Amending the BI law (Law 23/1999 on Bank Indonesia; amended with Law 3/2004 on Bank Indonesia) so that it includes a macroprudential mandate focusing on systemic risk and covering the entire financial system, not just the banks, could clarify BI's role. Provisions could also be made to grant BI access to the non-bank financial data needed for systemic risk monitoring.

Reforms to Strengthen the PPKSK Law

The PPKSK law could arguably be reformed to strengthen and clarify the independent roles and mandates of agencies, and others under the law.

Senior officials in the four main regulators of the KSSK suggest that it has been a useful body. It has improved coordination, collaboration, and information sharing between agencies, and it would likely play a vital role in ensuring a coordinated response to a crisis. But there is a strong argument that this is where the KSSK's role should end. The KSSK should not have the power to direct member agencies in their respective areas of responsibility. Its role should be limited to coordination, and information and data sharing between agencies.

There is also a strong argument for reinstating BI as Indonesia's lender of last resort. This would entrust BI with deciding whether a bank or financial institution needed liquidity support and would make it responsible for providing that support. The KSSK and other regulators, notably the OJK, have a role to play in informing BI's decision. But the decision, and the provision of support, would ultimately be a matter for BI. Bank Indonesia's mandate on macroprudential measures should be clarified in law to prevent its decisions and policies being challenged in the future.

Law 21/2011 on the Financial Services Authority should give unambiguous primacy to the OJK's mandate to maintain financial stability (consistent with the PPKSK law). The OJK's ability to regulate financial conglomerates should be strengthened. The law should be amended so that the OJK can require the establishment of, and license and supervise, a non-operating financial holding company of financial institutions (see IMF 2017).

The LPS will play a vital role if a liquidity crunch becomes a solvency crisis. There is an argument for making its bail-in powers available regardless of whether the president declares a financial crisis or not. The LPS deposit insurance limit of $150,000 is probably too high, given that most deposits in Indonesian banks are far smaller. The IMF has warned that such a high limit could result in increased moral hazard, weaker market discipline in banks, funding shortfalls relative to the LPS's obligations, and a reduced scope for bail-ins.

The role of the president should be limited to deciding whether public funds should be used to bail out an institution rather than deciding when agencies can use their powers. Minimising the extent to which taxpayers are required to bail out banks and financial institutions is a logical objective. But allowing public funding to be used in the case of a crisis gives the government more flexibility, which may be vital in an emergency. To ensure accountability, public funds should only be used if approval has been obtained from the president. Indonesia's fiscal rule also constrains the government's flexibility. But it has been important in providing political cover for politicians who attempt to address budget inefficiencies or reject proposals for unsustainable increases in spending.

These proposed reforms, however, ignore a vital reason that the PPKSK law was created. The law came from a concern about a lack of legal protection among policymakers. The law should be strengthened to legally protect the officials in relevant agencies. The test for legal protection under the PPKSK law is for a 'misuse of authority' rather than 'good faith'. Furthermore, the legal protection under the law applies only to actions taken in situations of near-crisis or crisis. It does not extend to the institution itself and the persons acting on its behalf (see IMF 2017). Strengthening these legal protections would help ensure that officials act quickly and do what is necessary in a crisis.

REFORMS: GROWTH AND STABILITY THROUGH FINANCIAL DEEPENING AND FINANCIAL INCLUSION

While the Indonesian economy is approaching 20 years of uninterrupted growth, Indonesia's financial system remains shallow. Financial deepening is vital to boost long-term financial stability (Apergis, Filippidis, and Economidou 2007). It is also vital for economic growth. A study by Ekberg et al. (2015) estimates that for Indonesia to achieve its GDP growth aspirations of $4.1 trillion by 2030, its financial capital base (the sum of its corporate bonds and equity markets) will need to grow by 6–8 times the size it was in 2014.

Total assets in Indonesia's financial sector equal about 70% of GDP, compared with about 400% in Korea, 300% in China and South Africa, and 200% in India (IMF 2017). Indonesia's stock market capitalisation-to-GDP ratio remains one of the lowest in the Asia Pacific, despite the ratio almost doubling from 27% in 2000 to 47% in 2017 (figure 6). Indonesia's deposits-to-GDP ratio has remained consistently below its peers' ratios, averaging 34% from 1999 to 2016 (figure 7).

Indonesia's financial sector is dominated by banks and can be split into three subsectors: the banking industry, the capital market, and the non-bank financial institutions (NBFIs). In 2018, Indonesia's banking sector accounted for 76% of the total assets in the financial sector (OJK 2018). Bank assets equalled 55% of GDP, and bank loans accounted for more than half of domestic financing (Rp 357 trillion) in 2017.

In contrast, the assets of insurance companies, the second-largest category, equalled only 7% of GDP. Foreign investors hold 38% of Indonesian government securities, higher than the average of 26% for Asia's emerging market economies. The combination of a shallow financial market and high foreign participation can induce volatility in times of stress.

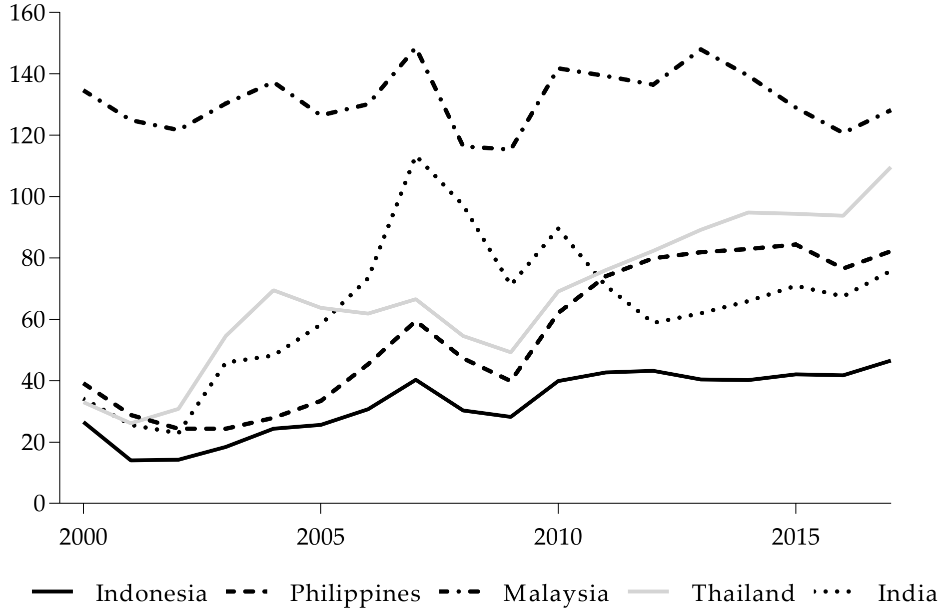
NBFIs are growing fast. In the ten years to 2015, the total assets of financial institutions grew by about eight percentage points of GDP. More than half of this increase came from NBFIs, particularly insurance companies (mainly life insurance companies). But while this growth has been significant, it comes from a low base (IMF 2017).

Indonesia's authorities have set out plans for financial deepening. The OJK announced a Financial Services Sector Master Plan (2015–19) in January 2016. The plan seeks to optimise the role of the financial sector in accelerating economic growth; to maintain financial system stability; to enhance the public's financial independence; and to support equitable economic development (OJK 2016). The government has also introduced a coordinated financial inclusion strategy to expand access to banking services. This National Strategy for Financial Inclusion (SNKI) focuses on financial education, public financing facilities, financial information mapping, supportive regulations, distribution networks, intermediation facilities, and consumer protection. The strategy is expected to increase the share of households that have bank accounts, from 36% in 2016 to 75% by 2019. The development of digital financial services will be a central part of this strategy (Parlina 2018).

As ambitious as these policy frameworks are, it is too early to speculate about their effects. Much needs to be done to deepen Indonesia's financial market and promote financial inclusion. In the past 20 years or so, the need for financial deepening has been discussed in many publications and reports, resulting in numerous recommendations.[27] The following three needs for reform stand out in

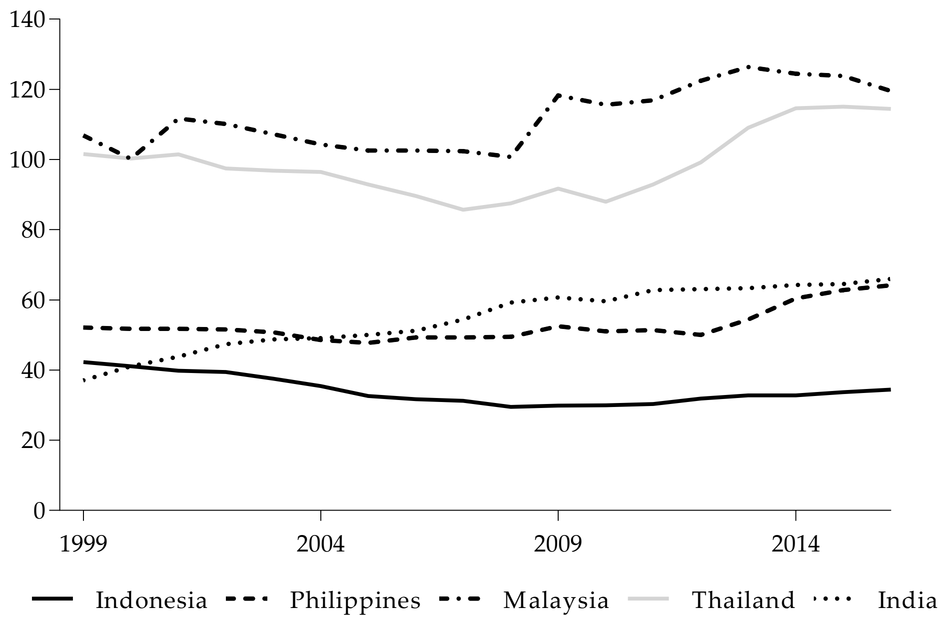
27. The IMF, the World Bank, and the ADB regularly publish research on Indonesia's economic development and its financial market. Independent research institutions such as the Mandiri Institute also contribute analysis. *The Bulletin of Indonesia Economic Studies* has been closely following Indonesia's economy and financial reforms for many years.

FIGURE 6 *Stock Market Capitalisation as a Percentage of GDP (%)*



Source: World Bank (2019).

FIGURE 7 *Financial System Deposits as a Percentage of GDP (%)*



Source: World Bank (2019).

this literature: the need to ease the credit conditions of banks; the need to enlarge the size and share of NBFIs and the capital market (increasing the size of the pie); and the need to develop more financial instruments.

Easing Banking Credit Conditions

The tightening of credit conditions from April 2018 to January 2019 reflects the shallow and bank-dominated structure of the financial system. It is also a result of the banks' large capital buffers and the competition for deposits that comes from the government bond market. As primary financing channels, the banks, especially the large banks, are mainly responsible for meeting the large financial needs of investors and the government, particularly for its infrastructure program. As discussed earlier, the capital-to-assets ratio of Indonesia's banks is higher than required under Basel III. This partly reflects the need of the banks to self-insure, due to the policy of bailing in, not bailing out, firms in crisis. Market participants suggest that this has led the banks to raise additional capital, which has contributed to tighter credit conditions (Ekberg et al. 2015). The banks also face competition in attracting deposits. The rate of return on government bonds (some in the form of corporate bonds issued by SOEs) reached 7.8% in June 2018. This is more attractive than the bank deposit rate of around 5.5%. This crowding-out effect is particularly prominent for the BUKU 3 and 4 banks, which have faced tighter credit conditions.

The government and regulatory bodies should focus on addressing these distortions in order to ease credit conditions for the banks and to help deepen the financial system while preventing further vulnerability and instability. Policymakers should be aware of the tightening of the financing environment within banks, and they should seek to divert some, if not all, of the financing needs to NBFIs and the capital market. This would not only release the credit tension of the banks but also help the non-banking financial intermediaries and capital market to grow.

Developing the Capital Market and Non-banking Financial Industry

The total assets of the NBFIs and the capital market combined account for a third of Indonesia's financial assets. This small share has contributed to the shallowness of the financial system. To ensure financial deepening and inclusion, efforts should be made to expand the financial market. Specifically, policies should focus on further developing the NBFIs, such as pension funds, insurance companies, and mutual funds. They should also focus on developing the capital market, including by developing the money market.

Reforms are needed to enlarge the domestic institutional investor base, especially by encouraging long-term institutional investors in the market. Domestic institutional investors in Indonesia currently have a short-term focus. For example, defined benefit pension funds focus on short-term investment returns rather than longer-term opportunities (Ekberg et al. 2015). Regulators and policymakers should encourage investors to revise their evaluation criteria, discourage people from withdrawing their pension savings between jobs, and provide subsidies and more incentives for long-term investment products.

Efforts should be made to encourage the establishment of pension funds, money market funds, and mutual funds. Money markets in Indonesia lack a clearing mechanism. The money market is asymmetric, with a few large banks lending and others borrowing. A clearing mechanism would help to mitigate counterparty risk and make it easier for smaller banks to access inter-bank financing (smaller banks are perceived as riskier than larger banks).

Additionally, policies to further develop the insurance sector with less linkage to banks will be vital. The insurance sector has been growing at an average rate of 20% per year over the past few years.[28] About half of the insurers belong to conglomerates, which are largely led by banks. The connections between insurers and banks may expose insurers to external risks, which could materially affect the banks as well. To develop the insurance sector without inducing undesirable risks, reforms should focus on insurers with little connection to banks.[29]

Expanding Access to Finance and Financial Instruments

Technological innovations through financial technology (fintech) have become important instruments for promoting financial inclusion in Indonesia. Fintech enables households in remote areas and small businesses to access bank loans and/or peer-to-peer loans. Fintech in Indonesia has been developed primarily by the banking sector and allows households in remote and rural areas and small businesses to access bank credit and possibly other financing channels over time.

Compared with countries such as India and China, Indonesia still has significant potential to develop fintech. Policies should be implemented to boost the growth of fintech instruments in the future. Furthermore, to facilitate the development of the money market, several instruments should be introduced, including floating rate notes, certificates of deposit, and commercial paper. This would help to remove the incentive for firms and households to shift money offshore, where more instruments are available to meet their financial needs. Attracting these funds back into Indonesia will be vital in the overall deepening of the financial system and strengthening of financial inclusion.

CONCLUSION AND FINDINGS

The global economy has produced a complex environment for Indonesia. Testing the resilience of the Indonesian economy are rising global interest rates, an appreciating US dollar, tightening global financial conditions, growth downgrades, the rise of the far-right, geopolitical tensions, the undermining of global institutions, the United States–China trade war, and the threat of a US recession and policy uncertainty from Brexit.

Indonesia has managed these challenges well. Its capital outflows were much smaller than in the Taper Tantrum, and the rupiah had regained most of its lost ground by January 2019. Indonesia's stock market has outperformed its peers, growth is forecast to remain stable, inflation is low, unemployment remains below its five-year average, consumer and business confidence are robust, and

---

28. In 2015, insurance company assets composed only about 7% of GDP, compared with 15% in peer countries in the Asia Pacific (IMF 2017).

29. Law 40/2014 on Insurance appears to have improved insurance regulation and supervision. See IMF (2017) for an assessment of the insurance core principles specified by this law.

the government's budget has improved through a smaller deficit and cheaper borrowing costs. But beyond these short-term indicators, significant risks remain for the economy. The increased debt of Indonesia's SOEs, the threat of liquidity withdrawal from Indonesia's banking system, the expansion of government debt held by foreigners, and the growing reliance on short-term borrowing by non-financial corporations could test the resilience of the financial system. Given the likely inadequacy of global and regional safety nets in providing the necessary support, the effectiveness of Indonesia's crisis management framework—the PPKSK law—will be crucial.

This paper has shown, however, that the law has serious deficiencies. It may dilute the accountability and responsibility of individual agencies within the KSSK. This could lead to a slow response to crises. It could see key regulators failing to act quickly, or failing to act at all, and it effectively removes BI from acting as Indonesia's lender of last resort. The framework also complicates the politics of a process that is already too complex. Combined, the framework could result in liquidity shocks becoming full-blown solvency crises, requiring intervention by the president and Parliament for agencies to use their powers to address the crisis.

A priority of the government should be to strengthen the PPKSK law. Public officials should have better legal protection when they act in good faith in responding to financial and economic crises. Individual agencies should be charged with responsibilities in their respective areas of expertise, with the KSSK playing only an information-sharing role. BI should be reinstated as Indonesia's lender of last resort. The OJK's ability to regulate financial conglomerates should be strengthened and the LPS should be able to access its bail-in powers without presidential approval. The president's role should be limited to deciding whether public funding can be used in a bailout.

In the longer term, the government should redouble its reform efforts to deepen its financial system. This is vital for both financial stability and economic growth. While Indonesia's economy is approaching 20 years of uninterrupted growth, its financial system remains shallow relative to its peers. Three areas of reform deserve special attention: the need to address the distortions that constrain the financing conditions of banks; the need to grow the size and share of NBFIs and the capital market (including pension funds, insurance companies, and mutual funds); and the need to develop more financial instruments, including by expanding access to fintech for households and small businesses.

In sum, strengthening financial resilience in Indonesia requires short- and long-term reforms. The spillover-rich international environment of recent years, in which financial and policy developments in one country have had significant implications for other countries, shows no signs of abating. The resilience of Indonesia's financial system could be tested sooner rather than later.

REFERENCES

Amelia, Anggita. 2019. 'Proyek Listrik 35.000 MW Beroperasi Penuh Lima Tahun Lagi' [35,000 MW electricity projects to operate in five years]. Katadata, 25 January. https://katadata.co.id/berita/2019/01/25/proyek-listrik-35000-mw-beroperasi-penuh-lima-tahun-lagi.

Amin, Khoirul. 2016. 'Govt to Pay Extra Attention to 30 Infrastructure Projects'. *Jakarta Post*, 11 February. https://www.thejakartapost.com/news/2016/02/11/govt-pay-extra-attention-30-infrastructure-projects.html.

Apergis, Nicholas, Ioannis Filippidis, and Claire Economidou. 2007. 'Financial Deepening and Economic Growth Linkages: A Panel Data Analysis'. *Review of World Economics* 143 (1): 179–98.

Azka, Rinaldi. 2018. 'Pemerintah Tuai Manfaat Depresiasi Rupiah & Kenaikan Harga Minyak' [The government reaps benefit from rupiah depreciation and oil price increase]. Bisnis.com, 26 July. https://finansial.bisnis.com/read/20180726/10/820869/pemerintah-tuai-manfaat-depresiasi-rupiah-kenaikan-harga-minyak.

Bank Indonesia. 2018. 'Public Sector Debt Statistics of Indonesia'. 31 December. https://www.bi.go.id/en/statistik/suspi/Pages/SUSPI_TWIII_2018.aspx.

Bland, Ben. 2018. 'US–China Trade War Prompts Rethink on Supply Chains'. *Financial Times*, 3 September. https://www.ft.com/content/03e4f016-aa9a-11e8-94bd-cba20d67390c.

Blöndal, Jón R., Ian Hawkesworth, and Hyun-Deok Choi. 2009. 'Budgeting in Indonesia'. *OECD Journal on Budgeting* 2009 (2): 1–31. https://www.oecd.org/indonesia/45362389.pdf.

Burke, Paul J., and Sandra Kurniawati. 2018. 'Electricity Subsidy Reform in Indonesia: Demand-side Effects on Electricity Use'. *Energy Policy* 116 (May): 410–21.

CEIC. 2019. 'CEIC Databases'. Accessed 15 February 2019. https://www.ceicdata.com/en.

Davis, Phillip E. 2008. 'Liquidity, Financial Crises and the Lender of Last Resort – How Much of a Departure Is the Sub-prime Crisis?' In *Lessons Learned from the Financial Turfmoil of 2007 and 2008*, edited by Paul Bloxham and Christopher Kent, 111–135. Sydney, NSW: Reserve Bank of Australia. https://www.rba.gov.au/publications/confs/2008/pdf/davis.pdf.

Dell'Araccia, Giovanni, Maria Soledad Martinez Peria, Deniz Igan, Elsie Addo Awadzi, Marc Dobler, and Damiano Sandri. 2018. *Trade-offs in Bank Resolution: Staff Discussion Note*. Washington, DC: IMF. 18 February. https://www.imf.org/~/media/Files/Publications/SDN/2018/sdn1802-trade-offs-in-bank-resolution.ashx.

Economist. 2018. 'The Next Recession'. 11 October, London. https://www.economist.com/leaders/2018/10/11/the-next-recession.

Ekberg, Jason, Reet Chowdhuri, Moekti P. Soejachmoen, and Bobby Hermanus. 2015. *Financial Deepening in Indonesia: Funding Infrastructure Development – Catalysing Economic Growth.* Jakarta: Oliver Wyman and Mandiri Institute.

Fealy, Greg. 2019. 'Old Rivals Spar before Indonesia's Presidential Rematch'. *East Asia Forum*, 3 January. http://www.eastasiaforum.org/2019/01/03/old-rivals-spar-before-indonesias-presidential-rematch/.

FSB (Financial Stability Board). 2014. *Key Attributes of Effective Resolution Regimes for Financial Institutions*. Basel, Switzerland: Financial Stability Board. 15 October. http://www.fsb.org/wp-content/uploads/r_141015.pdf.

Hagendorff, Jens, and Francesco Vallascas. 2013. 'Bank Capital Requirements: Risk Weights You Cannot Trust and the Implications for Basel III'. Vox CEPR Policy Portal, 16 December. https://voxeu.org/article/basel-risk-weights-can-t-be-trusted.

Hutchison, Michael M., and Ilan Noy. 2006. 'Sudden Stops and the Mexican Wave: Currency Crises, Capital Flow Reversals and Output Loss in Emerging Markets'. *Journal of Development Economics* 79 (1): 225–48.

IMF. 2017. 'Indonesia Financial System Stability Assessment – Press Release and Statement by the Executive Director for Indonesia'. IMF Country Report No. 17/152, Washington, DC.

———. 2018. 'World Economic Outlook Database'. October. IMF, Washington, DC, October.

———. 2019. 'World Economic Outlook Update: An Update of the Key WEO Projections'. IMF, Washington, DC, January. https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019.

Krugman, Paul. 2009. *The Return of Depression Economics and the Crisis of 2008*. New York: W.W. Norton & Company Inc.

Lipson, David. 2019. 'Joko Widodo Still ahead in Indonesia's Presidential Election Opinion Polls'. Australian Broadcasting Corporation, 18 January. https://www.abc.net.au/radio/programs/am/joko-widodo-still-ahead/10725306.

Lledó, Victor, Sungwook Yoon, Xiangming Fang, Samba Mbaye, and Young Kim. 2017. *Fiscal Rules at a Glance*. Washington, DC: IMF. March. https://www.imf.org/external/datamapper/fiscalrules/Fiscal%20Rules%20at%20a%20Glance%20-%20Background%20Paper.pdf.

LPEM FEB UI (Institute of Social and Economic Research–Faculty of Economics and Business, University of Indonesia). 2019. 'Macroeconomic Analysis Series: BI Board of Governor Meeting, January 2019'. https://www.lpem.org/macroeconomic-analysis-series-bi-board-of-governor-meeting-january-2019/.

McCawley, Peter. 2018. 'Indonesia's election: Jokowi vs Prabowo'. Lowy Institute, 16 November. https://www.lowyinstitute.org/the-interpreter/indonesia-election-jokowi-vs-prabowo.

McLeod, Ross. 2010. 'Economic and Political Perspectives on the Bank Century Case'. Crawford School of Public Policy, Australian National University, 19 May. https://crawford.anu.edu.au/acde/ip/pdf/seminars/2010_McLeod.pdf.

Morris, Nicholas, and Irene Tsjin. 2015. 'How to Solve Indonesia's Infrastructure Crisis'. *East Asia Forum*, 10 June. http://www.eastasiaforum.org/2015/06/10/how-to-solve-indonesias-infrastructure-crisis/.

OJK (Financial Services Authority). 2016. 'Indonesian Financial Services Sector Master Plan 2015–2019'. Jakarta: OJK.

———. 2018. 'Indonesia Banking Statistics–November 2018'. Jakarta: OJK.

———. 2019. 'Duties and Function'. About OJK. Accessed 27 February 2019. https://www.ojk.go.id/en/tentang-ojk/Pages/Tugas-dan-Fungsi.aspx.

Parlina, Ina. 2018. 'Indonesia Promotes Financial Inclusion with New Strategy'. *Jakarta Post*, 18 November. https://www.thejakartapost.com/news/2016/11/18/indonesia-promotes-financial-inclusion-with-new-strategy.html.

Rahadiana, Rieka, and Yudith Ho. 2017. 'Indonesia Bailout Fund Too Small for Bank Restructuring Mandate'. *Bloomberg*, 12 April. https://www.bloomberg.com/news/articles/2017-04-11/indonesia-bailout-fund-too-small-for-bank-restructuring-mandate.

Sterland, Barry. 2017. 'Economic Risk and Resilience in East Asia'. Working Paper 109, Global Economy & Development, Brookings Institution, Washington, DC, October. https://www.brookings.edu/research/economic-risk-and-resilience-in-east-asia/.

Straits Times. 2018. 'Indonesia President Joko Widodo Launches Re-election Campaign ahead of April Polls'. 21 September. https://www.straitstimes.com/asia/se-asia/indonesia-president-joko-widodo-launches-re-election-campaign-ahead-of-april-polls.

Tempo. 2018. 'Prabowo Demands Halt for IMF-World Bank Meeting. Jakarta. https://en.tempo.co/read/922274/prabowo-demands-halt-for-imf-world-bank-meeting.

Tjoe, Yenny. 2018. 'Two Decades of Economic Growth Benefited Only the Richest 20%. How Severe Is Inequality in Indonesia?' The Conversation, 28 August. https://theconversation.com/two-decades-of-economic-growth-benefited-only-the-richest-20-how-severe-is-inequality-in-indonesia-101138.

Trading Economics. 2019 'Indonesia – Economic Indicators'. Accessed 6 January 2019. https://tradingeconomics.com/indonesia/indicators.

Triggs, Adam. 2018a. 'What the Looming US Recession Means for Asia'. *Australian Financial Review*, 2 December 2018. https://www.afr.com/news/politics/world/what-the-looming-us-recession-means-for-asia-20181202-h18lwx.

Triggs, Adam. 2018b. 'The Dangerous Inadequacies of the World's Crisis-Response Mechanisms'. Working Paper 116, Global Economy & Development, Brookings Institution, May 2018.

von Allmen, Ulric Eriksson, and Heedon Kang. 2018. 'Reinforcing Financial Stability'. In *Realizing Indonesia's Economic Potential*, edited by Luis Breuer, Jamie Guajardo, and Tidiane Kinda, 271–300. Washington, DC: IMF.

Wall Street Journal. 2008. 'The Bailout of the Century'. 11 March. https://www.wsj.com/articles/SB10001424052748703625304575115094084748472.

Warjiyo, Perry. 2017. Indonesia: 'The Macroprudential Framework and the Central Bank's Policy Mix'. BIS Papers No. 94, Bank for International Settlements, 28 December. https://www.bis.org/publ/bppdf/bispap94.htm.

World Bank. 2019. 'Global Financial Development'. Retrieved from FRED, Federal Reserve Bank of St. Louis. February 2019.

Yuniar, Resty Woro. 2018. 'Indonesia to Review China's Belt and Road Projects if Prabowo Beats Widodo in Presidential Election'. *South China Morning Post*, 22 October.