

INDONESIA
ECONOMIC
QUARTERLY

October 2016

Pressures easing



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Preface

The Indonesia Economic Quarterly (IEQ) has two main aims. First, it reports on the key developments over the past three months in Indonesia's economy, and places these in a longer-term and global context. Based on these developments, and on policy changes over the period, the IEQ regularly updates the outlook for Indonesia's economy and social welfare. Second, the IEQ provides a more in-depth examination of selected economic and policy issues, and analysis of Indonesia's medium-term development challenges. It is intended for a wide audience, including policy makers, business leaders, financial market participants, and the community of analysts and professionals engaged in Indonesia's evolving economy.

The IEQ is a product of the World Bank's Jakarta office and receives editorial and strategic guidance from an editorial board chaired by Rodrigo Chaves, Country Director for Indonesia. The report is compiled by the Macroeconomics and Fiscal Management Global Practice team, under the guidance of Ndiame Diop, Practice Manager, and Hans Anand Beck, Senior Economist. Led by Masyita Crystallin, with responsibility for Part A, and Kelly Wyett, with responsibility for editing and production, the core project team comprises Magda Adriani, Arsianti, Indira Maulani Hapsari, Ahya Ihsan, Taufik Indrakesuma, Dhruv Sharma, and Violeta Vulovic. Administrative support is provided by Titi Ananto. Dissemination is organized by Jerry Kurniawan, GB Surya Ningnagara, Kurniasih Suditomo, Nugroho Sunjoyo, and Suryo Utomo Tomi, under the guidance of Dini Djalal.

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Executive summary: Pressures easing



Indonesia's economy remains resilient despite weaker than expected global growth

Global growth was sluggish in the first half of the year, driven by weaker than expected growth in advanced economies. In addition, China's growth eased as expected as the economy continues to rebalance from investment- to consumption-led growth, and as excess industrial capacity is reduced. However, import demand from China was weaker than expected. On the upside, the global financial market volatility leading up to and in the aftermath of the Brexit referendum in June has moderated significantly. Lower volatility in financial markets has contributed to the Rupiah's stabilization against the US Dollar (in line with most other emerging market currencies). Indonesia's growth remained resilient in Q2, partly supported by government expenditure, and is forecast to pick-up gradually on the back of stronger private investment supported by investment climate reforms and credible fiscal policy. This resilience stands in contrast to the performance of several other emerging market commodity exporters.

Fiscal risks have eased; downside risks to growth are mostly external

Domestic fiscal risks have eased recently given announced expenditure adjustments for 2016 and a more achievable 2017 draft Budget. Recent efforts by the Government contributed to strong revenue collection from the tax amnesty program by the end of phase 1 (of IDR 93.4 Trillion, 56.6 percent of target) and also helped moderate fiscal risks. This revenue is projected to raise public capital spending and hence have a positive impact on growth. On the other hand, external downside risks remain. These risks stem from the possibility of continued disappointing growth in major economies, the impact of a faster than expected slowdown in China's growth, and heightened US monetary policy uncertainty and the potential for consequential financial market disruption.

GDP growth picked up to 5.2 percent yoy in Q2 supported by government consumption

GDP growth accelerated to 5.2 percent year-on-year (yoy) in Q2 from 4.9 percent yoy in Q1, due to strong government consumption. Private consumption remained resilient while government consumption accelerated, growing at 6.3 percent from 2.9 percent in Q1. Fixed investment grew at 5.1 percent yoy in Q2, from 5.6 percent in Q1, supported mainly by public investment, implying subdued private investment. Despite government spending cuts announced in August of IDR 134 trillion, public capital expenditure from January to August was 19.3 percent higher than its level over the same period last year. Net exports did not contribute to growth in Q2, as both exports and imports continued to contract yoy.

Benign inflation provided room for monetary policy easing

A lack of inflationary pressure has provided room for Bank Indonesia (BI) to cut its policy rate six times this year. In September, headline inflation continued its downward trajectory, measuring 3.1 percent yoy, while core inflation was 3.2 yoy. The decline in inflation was partly due to more stable food prices, particularly for rice, and lower transportation costs attributable to the Government's fuel price reductions earlier in the year. BI moved to a new policy rate, the 7-day reverse repo, in August in an effort to improve the transmission mechanism between the policy rate and bank rates. However, the impact of this change on interbank credit lines and the uneven distribution of liquidity in the banking system has so far been limited.

The overall balance of payments recorded a moderate surplus

The overall balance of payments recorded a USD 2.2 billion surplus on the back of strong capital flows and a narrowing current account deficit. The current account deficit narrowed marginally to 2.0 percent of GDP, driven by an improvement in the trade balance. Exports increased quarter-on-quarter (qoq) for the first time since Q2 2015. This growth was driven by manufacturing exports, which were the only export category to also increase over the year. Imports also increased in Q2 but are still down over the year. Both raw material and capital goods imports, leading indicators for private investment, are showing signs of a small pick-up. The financial account expanded due to strong public sector borrowing. External financing needs remain stable, although foreign ownership of government debt is increasing as a share of the total.

The Rupiah has stabilized

Relatively stable global financial markets and a BOP surplus helped stabilize the Rupiah, which regained some of the ground lost in Q2, and has since appreciated. Most other emerging market currencies have not performed as well. Domestic financial assets also performed relatively strongly compared with regional peers in Q3. The downward trajectory in credit growth in Indonesia has also stabilized partly due to BI's monetary easing.

A sharp pick-up in tax amnesty proceeds helped bolster revenue collection

The Government's tax amnesty program saw a sharp pick-up in revenue collection just prior to the end of the first phase of the program. Tax collections under the program reached IDR 93.4 trillion, 56.6 percent of the target, by the end of phase 1 on 30 September¹ (see Box 2). Notwithstanding this outcome, the Government announced an expected overall revenue shortfall of IDR 219 trillion in 2016. At the same time, the Government announced further expenditure cuts of IDR 134 trillion to the 2016 revised Budget and increased the fiscal deficit to 2.7 percent of GDP (from 2.2 percent of GDP)². With a view to improving credibility, and reducing the

¹ Data accessed on October 11th 2016 at: <http://www.pajak.go.id/statistik-amnesti>.

² Wirayani and Parlina, 2016, "Budget Deficit Set to Soar towards Legal Limit", Jakarta Post, September 19, accessed at: <http://www.thejakartapost.com/news/2016/09/19/budget-deficit-to-soar-toward-legal-limit.html>.

likelihood of such mid-year expenditure cuts, the 2017 draft Budget features more realistic revenue targets. Assuming the Government maintains the momentum of priority public investment, the World Bank projects the fiscal deficit to reach 2.6 percent of GDP in 2016 and 2.8 percent of GDP in 2017.

The baseline outlook of 5.1 percent GDP growth in 2016 and 5.3 percent in 2017 remains unchanged

Looking ahead, the World Bank maintains its baseline GDP growth outlook from the June 2016 IEQ of 5.1 percent in 2016 and 5.3 percent in 2017. The projected pick-up in growth this year and next year relies on a

stronger contribution from private investment in response to lower borrowing costs, a more credible government budget, and investment climate reforms. Private consumption is expected to remain resilient on the back of subdued inflationary pressure, a stable Rupiah, and expenditure associated with local election activities which will start in Q4³. In addition, fiscal risks have eased on account of the more realistic revenue and expenditure targets in the draft 2017 Budget. On the revenue side, the Government expects that the planned revisions to the general tax law, income tax law (*Ketentuan Umum Tata Cara Perpajakan*, KUP), VAT law, and stamp duty law, as well as further increases in excise tax, will increase tax revenue and help achieve the 2017 revenue target. On the expenditure side, changes in the allocation of spending include: better targeting of electricity subsidies and the rice for prosperity program (*Beras untuk Rakyat Sejahtera*, RASTRA) and increased Village Funds transfers.

The poverty rate fell in Q1 2016, the largest yoy decline in the last 3 years; the Gini coefficient also fell, the largest annual drop since the Asian financial crisis

The official poverty rate fell by 0.4 percentage points in Q1 2016, the largest yoy decline in the last 3 years. Stable food prices, particularly for rice, made a large contribution to poverty reduction. In particular, improved management of rice imports and market operations by the government in late 2015 and early 2016 curbed rice price inflation during a typically volatile time of year. Expansions in social assistance programs may also have driven poverty reduction. For example, the Family Hope conditional cash transfer program (*Program Keluarga Harapan*, PKH) was expanded from 2.8 million households to 3.5 million households in late 2015. This expansion contributed as much as 0.1 percentage points to poverty reduction, or nearly one-third of the total observed decline. The Gini coefficient fell by 1.1 points to 39.7 in March 2016, the largest annual drop in the Gini since the Asian financial crisis, and one of only three substantive falls in the last 15 years. The major driver of this reduction was a reallocation of total national consumption from the top 20 percent of households (Quintile 5) to the middle 40 percent of households (Quintiles 3 and 4). However, the bottom 40 percent of households' (Quintiles 1 and 2) share of consumption did not increase.

Table 1: In the base case, GDP growth is projected at 5.1 percent in 2016

		2015	2016p	2017p
Real GDP	(Annual percent change)	4.8	5.1	5.3
Consumer price index	(Annual percent change)	6.4	3.6	4.4
Current account balance	(Percent of GDP)	-2.1	-2.1	-2.3
Budget balance	(Percent of GDP)	-2.6	-2.6	-2.8

Source: BI; BPS; MoF; World Bank staff calculations

³ Local elections will be held on 15 February 2017, and cover 7 provinces including DKI Jakarta (out of 34 total provinces) and 94 districts (out of 504 total districts).

Unlocking Indonesia's tourism potential requires infrastructure development, investment promotion and reforms, better government coordination, and improved implementation capacity

Given the protracted slowdown in global growth and trade, one way for Indonesia to boost export earnings in the medium term is to improve the tourism sector. Tourism also has the potential to unlock private investment, foster inclusive and job-rich growth, and guide a targeted infrastructure investment program in tourism destinations. In light of this potential, the Government has developed an ambitious plan for the development of 10 priority tourist destinations. Implementing this plan will require efforts on multiple fronts. First, infrastructure development is required to improve the accessibility and carrying capacity of these new tourist destinations. The Government plans to prepare integrated tourism masterplans to guide such development. These plans should also be used to ensure that development is environmentally sustainable. Second, licensing simplification, further revisions to the Negative Investment List—such as for ecotourism facilities, spas, and travel agencies—and further promotion efforts are required to attract foreign and domestic investment to the sector. Third, destination development will require strengthened local government implementation capability, and better coordination between central government agencies, subnational governments, and the private sector. Finally, destination development plans should be adjusted periodically to reflect global and domestic market dynamics and local conditions. To this end, tourism data needs to be better consolidated and more systematically analyzed to track results and inform potential mid-course corrections.

There are growing concerns about the efficacy of Indonesia's food security policies, necessitating a rebalancing away from a focus on rice production, and towards a modern food system

Despite recent improvements in the rice price stabilization mechanism, the efficacy of food security policies and public spending in Indonesia remain a concern. First, Indonesia's consumers are paying exceptionally high prices for food, with the country's food trade restrictions and other policy interventions imposing a significant 'tax' on consumers. These high food prices have the most significant adverse impact on the country's poor and near poor, and have contributed to high rates of stunting. Second, despite government support and subsidies, many of Indonesia's farmers have been unable to sustain a livelihood based on agriculture. At the same time, changing dietary and food expenditure patterns are transforming the landscape for Indonesia's food policy, necessitating greater policy attention on the food system's contributions to and burdens on public health and the environment. In light of these findings, Indonesia should rebalance its food security policy away from a dominant focus on rice, and towards a modern food system which is more RICE: (i) Reliable, (ii) Inclusive, (iii) Competitive; and (iv) Eco-friendly. This will require shifts in public spending and in the modalities of public interventions.

Integrating WASH with other sectors—such as health, nutrition, agriculture, and social assistance—is required to reduce stunting

As well as food policy, stunting is influenced by access to water, sanitation, and hygiene (WASH) services. Indonesia has already increased access to WASH in rural areas over the last decade owing to a shift in approach towards community empowerment, and a strengthened institutional framework. Sustaining this success, and integrating WASH with other sectors—health, nutrition, agriculture, and social assistance—is now required to further improve access to WASH and, consequently, address Indonesia's high rate of stunting. Some collaboration among sectors is already happening. For example, triggering activities have traditionally been used to stimulate an emotional response from the community to stop open defecation. More recently, they are also being used to increase community demand for improved water supply and good nutrition. However, more effort is required to mainstream an integrated approach to stunting. To begin, formative research would be useful in producing evidence-based messaging on the interlinkages of rural WASH, nutrition, and poverty. Such messaging could form the basis of integrated

Behavioral Change Communication (BCC) frameworks and strategies. Further, local governments need enhanced capacity, increased resources, and better incentives to collaborate with other sectors and deliver integrated WASH services. Finally, existing WASH organizations, like Community-Based Operators (CBOs) responsible for overseeing local service delivery, can serve as useful entry points to provide services in other sectors.

Increased teacher qualifications are not enough to improve student learning outcomes

Another priority for the Government over the past decade has been improving education. While enrollment rates have substantially improved in recent decades, Indonesia's poor performance in international assessments of student learning indicates that the key challenge in the sector may now be the quality of education. Recognizing this, the Government implemented a teacher certification program designed to improve teachers' qualifications and motivation to perform, and increase the desirability of teaching as a profession. The program provides certified teachers with a generous professional allowance, which effectively doubles their salary. Certification requirements include a university bachelor's degree and a portfolio of other training and experience. Importantly, requirements to demonstrate competency were dropped during the design phase. Potentially as a result, a recent evaluation found that the certification program had no impact on student test scores, even though many teachers were incentivized to upgrade their qualifications. Looking ahead, the hope is that the certification program has helped to lay the groundwork for further essential reforms in the sector. In particular, the certification program should shift to a system of teacher management and continuous professional development. Such a system would prioritize demonstrated professional competencies over education level and seniority. Without such improvements, the huge fiscal cost of the program would turn out to be "double for nothing".

A. Economic and fiscal update



1. Global financial market volatility has eased, but the global economy remains unsupportive of Indonesia's growth

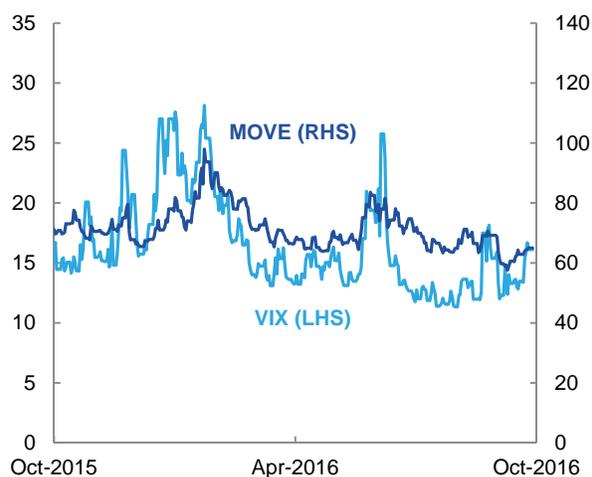
Global growth continued to disappoint

Global growth momentum continued to be sluggish in the first half of the year, with weaker than expected advanced economy growth (particularly in the US). Emerging market growth was also relatively subdued. The impact on financial markets and growth of the political uncertainty following the UK Brexit vote has been limited to the UK thus far. Growth in China is expected to continue to ease as it continues the transition from import- and commodity-intensive industry and investment toward consumption and services. This may have a relatively larger short-term impact on Indonesia compared to relatively less commodity-dependent economies.

Global financial market volatility mostly subsided in Q3

The volatility seen in global financial markets leading up to and in the aftermath of the Brexit referendum in June has moderated significantly. Volatility indicators such as the MOVE (bond markets) and VIX (equity markets) are close to or below levels prior to the contagion from financial market volatility in China in September 2015 (Figure 1). Benefiting from global financial market stability, the

Figure 1: Financial market volatility subsided in Q3
(growth index, yoy, percent)



Source: Bloomberg; World Bank staff calculations

Rupiah stabilized against the US dollar (in line with most other emerging market currencies). Reflecting a pick-up in global commodity prices, the prices of Indonesia's six major commodity exports continued to grow in Q3 relative to Q2 (with the exception of crude oil which declined slightly). In year to date terms, the prices of all six commodities have risen strongly.

2. GDP growth picked up on the back of stronger government consumption

GDP growth picked up to 5.2 percent yoy...

Real GDP growth picked up to 5.2 percent year-on-year (yoy) in Q2 from 4.9 percent yoy in Q1, due to strong government consumption. Total consumption growth remained robust in Q2, growing at 5.2 percent yoy. Despite government spending cuts of IDR 134 trillion announced in August, government investment accelerated; by the end of August, public capital expenditure was 19.3 percent higher than its level over the same period last year. Despite Bank Indonesia (BI) cutting its policy rate five times since the beginning of this year, the impact on credit growth has been limited. The World Bank's forecasts for Indonesia's GDP growth remain at 5.1 and 5.3 percent in 2016 and 2017 respectively. However, the outlook is subject to increased external risks, and will depend on the ongoing resilience of private consumption and a pick-up in private investment.

... driven mainly by government consumption...

Private consumption expenditure was stable in Q2, supported by lower inflation on the back of stable food prices, a relatively stable Rupiah (see Section 3), and the seasonal impact of Ramadhan. It grew by 5.1 percent yoy in Q2, slightly above the 5.0 percent yoy growth recorded in the three previous quarters. Government consumption, however, was the main driver of the growth pick-up in Q2, growing at 6.3 percent yoy, up from 2.9 percent yoy in the first quarter (Figure 2). Government consumption's contribution to yoy GDP growth was 0.5 percentage points in Q2 compared to a contribution of 0.2 percentage points in the previous quarter.

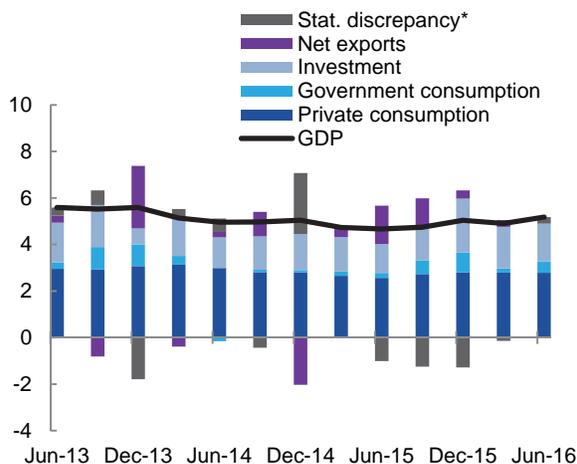
...while private investment remained subdued

Total fixed investment spending growth was 5.1 percent yoy, down from 5.6 percent in the last quarter, and contributed 1.6 percentage points to yoy growth. In contrast, public investment spending (deflated by the total investment deflator) grew by 45.7 percent yoy in Q2, indicating continuing improvement in expenditure disbursement. However, given Indonesia's relatively small fiscal multiplier (see Box 1), the positive impact of this investment is likely to be small and temporary. Therefore, it is essential that increased public capital expenditure is accompanied by improvements in public investment management. Not only to improve the short-run impact of such investment on growth, but more importantly, to improve productivity in the long-run.

Export and import growth seems to have bottomed out, but the contribution of net exports to GDP growth was still zero

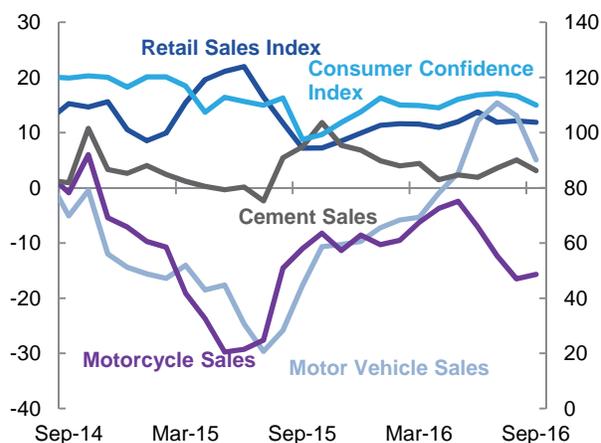
Net exports did not contribute to growth in Q2, as both exports and imports continued to contract yoy. However, the pace of contraction is slower than in Q1 this year. Real exports contracted 2.7 percent yoy in Q2 compared with 3.5 percent yoy in the first quarter. Similarly, real imports contracted by 3.1 percent yoy in Q2 compared with -5.1 percent in Q1.

Figure 2: Government consumption was the main driver of the pick-up and GDP growth
(contributions to growth, percent yoy)



Note: *Stat. discrepancy includes change in inventories.
Source: BPS

Figure 3: Most high frequency indicators picked up in July and August
(3 month moving average, percent yoy; BI consumer confidence index (RHS))



Source: BI; BPS; World Bank staff calculations

High frequency indicators showed mixed signals in September

High frequency indicators were mixed in September, but still down over the year (Figure 3). The Nikkei/Markit purchasing manager index (PMI) and retail sales survey increased in September. A negative trend was observed in the Bank of Indonesia’s consumer confidence index and business expectation and realization indices. Motorcycle sales increased in September but still contracted by 15.7 percent yoy.

The World Bank’s projection for GDP growth remains unchanged since the June 2016 IEQ at 5.1 percent for 2016...

The World Bank’s projection for GDP growth remains at 5.1 percent for 2016 and 5.3 percent in 2017. Anticipating a revenue shortfall of IDR 219 trillion, the Government announced further expenditure cuts of IDR 134 trillion to the 2016 revised Budget and initially increased the fiscal deficit to 2.7 percent of GDP, converging to the June 2016 IEQ estimates of IDR 236 in expenditure cuts and an IDR 316 revenue shortfall. Private consumption is expected to remain resilient in line with benign inflation, a relatively stable Rupiah, and local election activities due to start in Q4. However, the effect of recent monetary easing has remained muted. Given a likely high base effect from high government investment growth this year the outlook for Q4 2016 and beyond will depend on a pick-up in private investment.

...subject to significant downside risks

The baseline growth scenario is subject to significant downside risks stemming from both domestic and external factors. Major external risks include slower than expected growth in major advanced economies, and the uncertainty around the timing of a US interest rate hike which could divert capital flows from emerging economies and possibly increase global financial market volatility. This risks will mainly affect 2017 growth given that there is only one quarter left in 2016. Domestic risk factors include a lower than expected recovery in private investment, and a higher than expected revenue shortfall, which could in turn negatively impact the Government’s infrastructure plans. On the other hand, as identified in the June IEQ, the upside risk to government revenue from the tax amnesty program has partly materialized. Tax amnesty revenues reached IDR 93.4 trillion (56.6 percent of the target) by the end of phase 1 (see Box 2). Additional revenue from the tax amnesty program that translates into government spending supportive of growth remains an upside risk to 2017 growth.

Box 1: What happens when the Government boosts public investment in Indonesia?

Within the context of subdued global demand, the Indonesian Government has boosted public investment with a view to supporting demand in the short-run and increasing supply side capacity in the long-run by focusing on infrastructure spending specifically. Such a decision is currently considered particularly attractive by many governments because of low borrowing costs and benign inflationary pressures.

A review of the relevant empirical literature suggests that in emerging and developing economies fiscal multipliers (the impact of increased public spending on growth) are much smaller than in advanced economies, mainly due to public investment inefficiencies, relatively immature financial markets and a lower ability to sustain higher levels of public debt due to a lack of fiscal credibility. These studies generally show that boosting public investment generates a small positive multiplier in emerging and developing economies.

The World Bank has analyzed the size and timing of the economic impact of public investment spending using a similar empirical approach to that outlined in Blanchard and Perotti (2002), Ilzetzki *et al* (2009) and Tang *et al* (2010). The approaches uses a vector auto regression (VAR) framework and the following variables: CAPEX as proxy for public investment, real private investment, real government consumption expenditure, the policy interest rate, and real GDP.

The analysis found that a one percent increase in public investment increases economic growth by approximately 0.2 percent (similar to the results in Tang *et al* (2010)) and that this impact tends to dissipate after four quarters.

Sources: Tang, Liu, and Cheung, 2010, "Changing Impact of Fiscal Policy on Selected ASEAN Countries" ADB Working Paper Series on Regional Economic Integration, No. 70, December; Ilzetzki, Mendoza, and Vegh, 2009, "How Big are Fiscal Multipliers?" Center for Economic Policy Research (CEPR) Policy Insight, No. 39; Blanchard and Perotti, 2002, "An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output" *Quarterly Journal of Economics* 107(4): 1329–68.

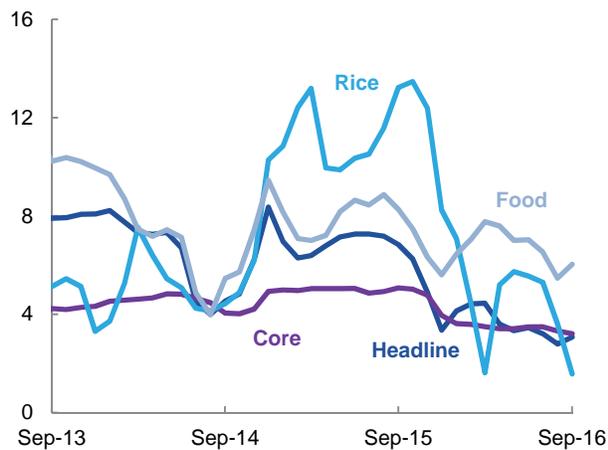
Note: Real private investment data is not published and was estimated using the difference between total investment and government capital expenditure as a proxy for public investment and then deflating this value using the investment deflator.

3. Inflationary pressures are lower due to stable food prices and declining transportation costs

Both headline and core inflation continued to decline on the back of moderating food prices

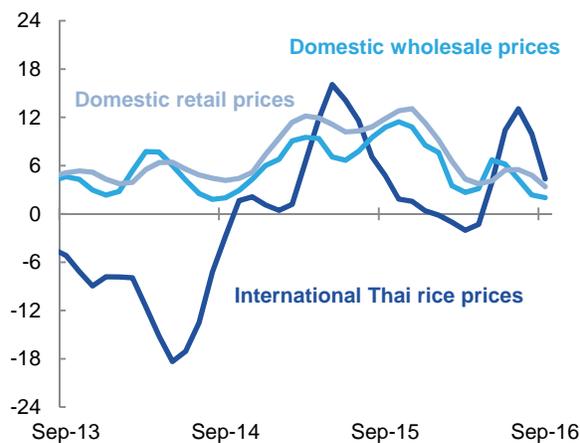
In September, headline inflation continued its downward trajectory, measuring 3.1 percent yoy, while core inflation was 3.2 yoy (Figure 4). The decline in inflation was partly due to more stable food prices, particularly for rice, and lower transportation costs attributable to the Government's fuel price reductions earlier in the year. The moderation in rice price inflation was partly due to Government food price management. These efforts included managing Bulog's rice stock, timely rice imports, and direct distribution of rice to the market.

Figure 4: Headline CPI inflation has fallen on the back of moderating food prices
(percent change, yoy; last observation September 2016)



Source: BPS; World Bank staff calculations

Figure 5: Domestic rice prices eased in line with international trends
(year-on-year growth, 3 month moving average, percent)



Source: CEIC; World Bank staff calculations

Domestic rice price stabilization efforts have been effective

While domestic rice price growth has moderated recently, they remain higher than international prices. In September, the average domestic wholesale (IR64-I) rice price was IDR 10,010 per kg, while the comparable Thai (5 percent broken) rice price was IDR 5,495 per kg. The gap between the domestic and international wholesale rice prices remained high, hovering around 80 percent in September, from 57 percent in May. Looking ahead, the Indonesian Weather and Meteorology Bureau (BMKG) predicts unusually high rainfall caused by La Niña events could have an adverse impact on food production and distribution similar to events in the recent past – the 2010-2011 La Niña caused a 2 percent decline in paddy production.

Table 2: In the base case, GDP growth is projected at 5.1 percent in 2016 and 5.3 percent in 2017
(percentage change, unless otherwise indicated)

	Annual			YoY in Fourth Quarter			Revision to Annual	
	2015	2016	2017	2015	2016	2017	2016	2017
1. Main economic indicators								
Total Consumption expenditure	4.9	4.9	5.2	5.4	4.9	5.3	0.1	0.0
Private consumption expenditure	4.8	5.0	5.3	5.0	5.1	5.3	-0.1	0.0
Government consumption	5.4	4.2	5.1	7.3	3.9	5.6	1.2	0.2
Gross fixed capital formation	5.1	4.7	5.2	6.9	3.9	5.7	-0.5	-0.1
Exports of goods and services	-2.0	-1.2	3.4	-6.4	4.4	3.6	0	-0.2
Imports of goods and services	-5.8	-2.3	2.7	-8.1	-0.5	3.4	-1.3	-0.1
Gross Domestic Product	4.8	5.1	5.3	5.0	5.1	5.4	0.0	0.0
2. External indicators								
Balance of payments (USD bn)	-1.1	1.4	5.8	-	-	-	0.0	0.0
Current account balance (USD bn)	-17.7	-20.1	-24.9	-	-	-	1.0	0.0
<i>As share of GDP (percent)</i>	-2.1	-2.1	-2.3	-	-	-	0.0	0.0
Trade balance (USD bn)	5.0	6.2	5.0	-	-	-	0.0	0.0
Capital & financial acc. bal. (USD bn)	17.1	22.4	32.1	-	-	-	0.0	0.0
3. Fiscal indicators								
Central gov. revenue (% of GDP)	13.1	12.9	-	-	-	-	0.8	-
Central gov. expenditure (% of GDP)	15.6	15.4	-	-	-	-	0.5	-
Fiscal balance (% of GDP)	-2.5	-2.6	-	-	-	-	-0.2	-
Primary balance (% of GDP)	-1.2	-1.0	-	-	-	-	0.4	-
3. Other economic indicators								
Consumer price index	6.4	3.6	4.4	4.8	4.0	4.7	0.0	0.0
GDP Deflator	4.2	2.7	4.4	4.0	3.6	4.5	-0.2	-0.1
Nominal GDP	9.2	7.9	10.0	9.2	8.8	10.1	-0.2	-0.1
4. Economic assumptions								
Exchange rate (IDR/USD)	13389	13300	13300	-	-	-	0.0	0.0
Indonesian crude price (USD/bl)	49	41	51	-	-	-	1.0	2.0

Note: Exports and imports refer to volumes from the national accounts. All figures are based on revised and rebased GDP. Exchange rate and crude oil price assumptions are based on recent averages. Revisions are relative to projections in the June 2016 IEQ.

Source: BPS; BI; CEIC; World Bank staff projections

4. The current account deficit narrowed slightly in Q2 2016

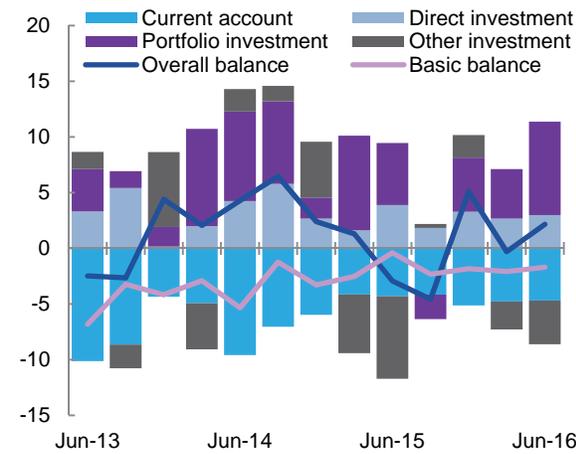
Strong public portfolio inflows drove a moderate BOP surplus

An increase in portfolio investment resulted in a moderate balance of payments surplus in Q2, following a small deficit in the previous quarter (Figure 6). The current account deficit narrowed marginally to 2.0 percent of GDP, driven by an improvement in the trade balance. The financial account expanded due to strong public sector borrowing. External financing needs remain moderate, although foreign ownership of government debt is increasing as a share of the total.

The current account deficit narrowed marginally to 2.0 percent of GDP in Q2 2016 and the trade surplus increased

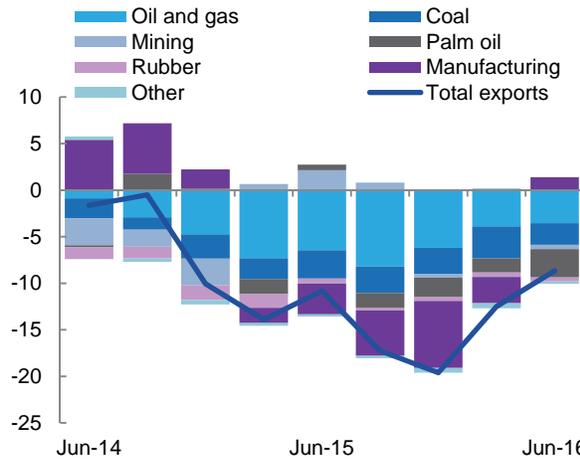
The current account deficit improved slightly to 2.0 percent of GDP, from 2.1 percent in the previous quarter. The trade surplus expanded to USD 1.7 billion in Q2 as exports increased by 7.2 percent—the first qoq increase since Q2 2015. This growth was driven by manufacturing exports, which were the only export category to also increase over the year (Figure 7). For the most part, commodity exports moved in line with their prices—down over the year but up in the quarter. Imports also increased in Q2, but fell by 7.8 per cent over the year, driven by volatile fuel imports. Raw material and capital goods imports similarly increased in the quarter but were down over the year.

Figure 6: Strong public portfolio inflows drove a moderate BOP surplus
(USD billion)



Note: Basic balance = direct investment + current account balance
Source: BI; World Bank staff calculations

Figure 7: Exports increased for the first time in four quarters, but remained lower over the year
(contributions to year-on-year growth, percentage points)

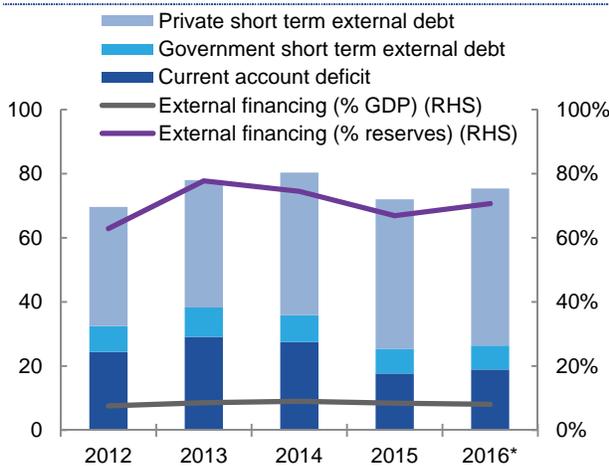


Source: BI; World Bank staff calculations

Direct and portfolio investment in Indonesia was strong in Q2

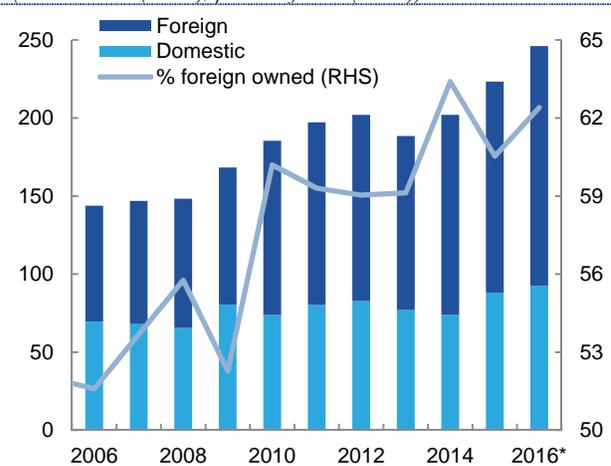
Direct investment increased slightly in Q2 to USD 3.0 billion. Portfolio flows were also strong, driven by public sector borrowing. Private portfolio inflows were low and focused on equities. Net foreign purchases of Indonesian equities and government bonds in Q3 suggest that portfolio flows will remain robust in Q3. Other investment posted a quarterly deficit, driven by an outflow of private sector assets, particularly currency and deposits.

Figure 8: External financing needs remain stable
(USD billion (LHS), percent (RHS))



Note: Short-term debt is calculated on a remaining maturing basis; * Projection
Source: BI; World Bank staff calculations

Figure 9: Government debt is increasingly held offshore
(USD billion (LHS), percent of total (RHS))



Note: * Projection
Source: BI; World Bank staff calculations

Indonesia's external financing needs are stable and sustainable

Indonesia's projected gross external financing needs for 2016—the sum of the current account deficit and external debt amortizations—remain stable, at approximately USD 75 billion (8.0 percent of GDP and 71 percent of reserves) (Figure 8). The ratio short term to total external debt (7.2 percent) also remains

stable. However, the portion of government debt held off-shore has been gradually rising over the last decade, making government finances more exposed to international capital markets.

The current account deficit is expected to widen to 2.1 percent of GDP in 2016 and 2.3 percent in 2017

Looking forward, the expected current account deficits for 2016 and 2017 have been reduced by 0.2 percentage points to 2.1 and 2.3 percent of GDP, respectively (Table 3), mainly due to a larger than expected trade surplus in Q2. Imports, especially capital goods imports, increased by less than expected in Q2. In contrast, exports increased by more than expected, supported by higher commodity prices in Q2. Commodity prices continued to rise through July-September, which will support exports in Q3. Conversely, growth is expected to remain

suppressed in Indonesia's major trading partners, putting downward pressure on exports. Overall capital inflows into Indonesia, particularly equity flows, are expected to remain strong in H2 as international investors search for yield in a low global interest rate environment. However, government bond flows are expected to taper off in H2 given the already high levels of government borrowing in H1.

Table 3: The current account deficit is expected to widen slightly in 2016 and 2017

(USD billion unless otherwise indicated)

	2015	2016	2017
Overall balance of payments	-1.1	3.5	8.6
% of GDP	-0.1	0.4	0.9
Current account	-17.7	-18.9	-23.5
% of GDP	-2.1	-2.1	-2.3
Goods trade balance	13.3	14.0	14.7
Services trade balance	-8.3	-7.8	-9.5
Income	-28.2	-30.3	-34.4
Transfers	5.5	5.2	5.7
Capital and financial accounts	17.1	22.4	32.1
% of GDP	2.0	2.4	3.2
Direct investment	10.6	10.9	13.4
Portfolio investment	16.7	15.8	21.5
Financial derivatives	0.0	-0.1	0.0
Other investment	-10.3	-4.3	-2.8
Memo:			
Basic balance	-7.1	-8.0	-10.1
% of GDP	-0.8	-0.9	-1.1

Note: Basic balance = direct investment + current account balance.

Source: BI; World Bank staff calculations

5. Stable domestic financial conditions and monetary policy easing bias

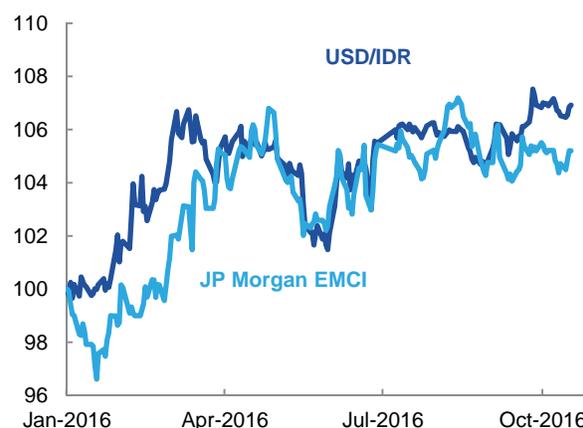
Domestic financial conditions are stable

Relative stability in global financial markets helped stabilize the Rupiah in Q3 (Figure 10). Furthermore, Indonesian financial assets performed relatively strongly compared with asset prices in regional peers (Thailand and Malaysia) in Q3. Credit conditions showed some initial signs of easing but this was not sustained despite Bank Indonesia (BI) moving to a new, lower policy rate and retaining its easing bias.

The Rupiah has been stable throughout Q3...

Regaining some of the ground lost in late Q2, the Rupiah has appreciated 1.3 percent against the US dollar since the start of July. This is in line with other emerging economies, as shown by JP Morgan's Emerging Market Currency Index (EMCI) (Figure 10). In year to date terms, the Rupiah has maintained the strong gains made in Q1 and has appreciated 6.9 percent against the US dollar.

Figure 10: The Rupiah remained stable in Q3
(index, January 4 2016 = 100)



Source: BI; JP Morgan; World Bank staff calculations

...while borrowing costs have decreased...

The yield on government 10-year bonds has stabilized at 7.1 percent, after falling 180 basis points since the start of the year, coinciding with falling global financial market volatility over the course of the year (notwithstanding increased volatility during the Brexit debate). JP Morgan's Emerging Market Index (EMBI) spread for Indonesia also indicated a reduction in borrowing costs, declining 51 basis points between the end of June and October 19 (compared to a fall of 14 basis points in Q2). Similarly, the global EMBIG (a measure of emerging market US dollar borrowing costs) declined by 44 basis points over the same period (compared to a fall of 25 basis points during Q2).

... and Indonesian equities are near historical highs

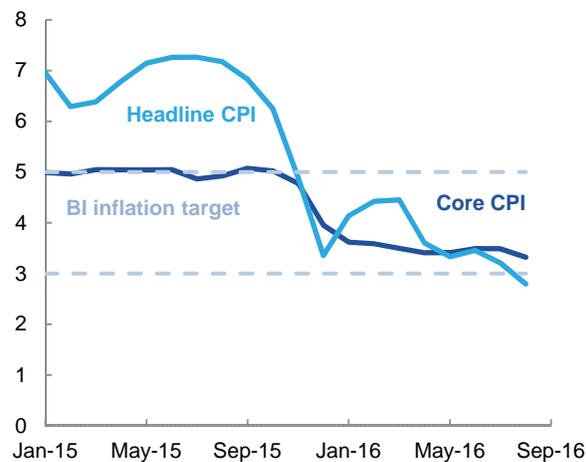
The JCI continued its strong performance this year, rising 8.8 percent between the end of June to mid-October, driven by strong performances in the basics industry (mostly construction materials; up 24.0 since the end of June) and the finance sector (up 15.4 percent). The mining and miscellaneous sectors continue to be the driving force behind the gains over the year to date, with growth of 59 percent and 31 percent respectively. Indonesian equities are now around historical highs (last seen in April 2015).

A monetary policy easing bias has had limited impact on domestic credit growth so far

On 19 August Bank Indonesia (BI) moved to a new policy rate, the 7-day reverse repo, in an effort to improve the transmission mechanism between the policy rate and bank rates. The impact of this change—on interbank credit lines and the uneven distribution of liquidity in the banking system—has so far been limited. Given the stable Rupiah and benign inflationary pressures (Figure 11), as well as a small downward revision to BI's 2016 growth forecast from 5.0–5.4 percent to 4.9–5.3 percent, BI has been able to cut rates six times this year. Notwithstanding the monetary easing this year, both credit and deposit growth remains tepid (near six year lows) (Figure 12), partly due to an increase in non-performing loans (NPLs) over the course of this year. The recent pick-up in credit appear to have been short-lived and it remains to be seen whether the pick-up in deposit growth in August will be sustained.

Figure 11: Benign inflation provided room for monetary easing

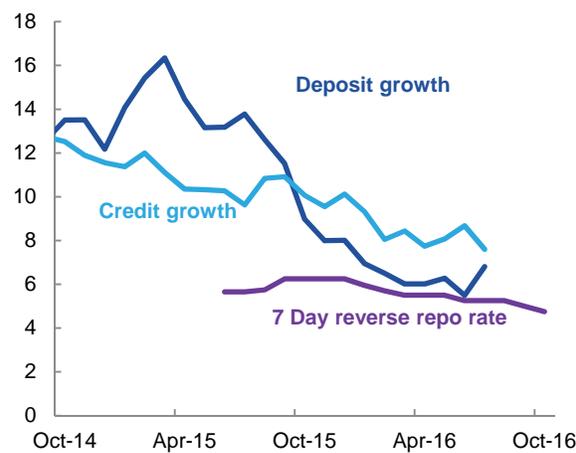
(year-on-year growth, percent)



Source: BI; World Bank staff calculations

Figure 12: Credit and deposit growth continues to disappoint

(year-on-year growth, percent)



Source: BI; World Bank staff calculations

6. Policy responded to weak revenue collection

The Government introduced further measures in response to weak revenue collection early in the year

Revenue collection picked up significantly in Q3, due to the implementation of the first three months of the tax amnesty program. Tax collection under the program alone reached IDR 93.4 trillion, 56.6 percent of the target, by the end of phase 1 on 30 September⁴ (see Box 2). Nevertheless, the Government announced an expected overall revenue shortfall of IDR 219 trillion in 2016. At the same time, the Government announced further expenditure cuts of IDR 134 trillion to the 2016 revised Budget and increased the fiscal deficit to 2.7 percent of GDP (from 2.2 percent of GDP in the 2016 Budget)⁵. With a view to improving credibility, and reducing the likelihood of such mid-year expenditure cuts, the 2017 draft Budget (currently under discussion in the Parliament) features more realistic revenue targets.

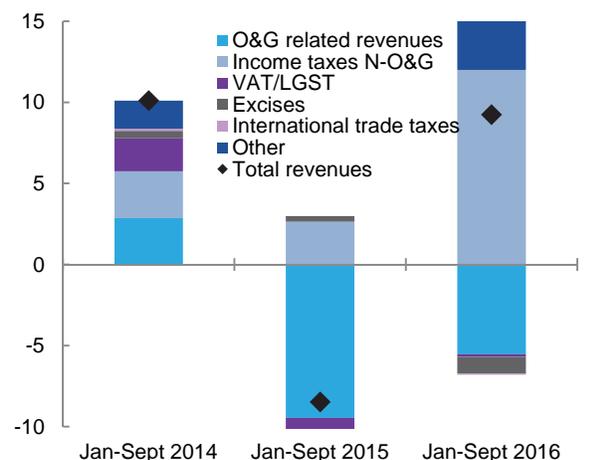
The tax amnesty has led to a pick-up in year-to-date revenue collection

Revenue realization in the first nine months of 2016 increased significantly by 9.2 percent yoy in nominal terms (Figure 13), mainly driven by a sharp increase in non-oil and gas income taxes. Such taxes contributed 12.0 percentage points to yoy growth compared to 2.6 percentage points over the same period last year. This pick-up is mostly due to increased collection of corporate income taxes (CIT) and proceeds from the tax amnesty program (recorded under other non-oil and gas income taxes) (Figure 14). On the other hand, oil and gas-related revenues continued to detract from nominal growth in total revenue (by 5.5 percentage points), but at a lower rate than in the corresponding period last year (-9.5 percentage points), reflecting a slower decline in oil and gas prices this year. Domestic VAT increased significantly by 36.1 percent yoy, in line with reasonably robust private consumption growth. Import VAT continued to decline, but at a slower pace than last year, reflecting a smaller contraction in imports.

⁴ Data accessed on October 11th 2016 at: <http://www.pajak.go.id/statistik-amnesti>.

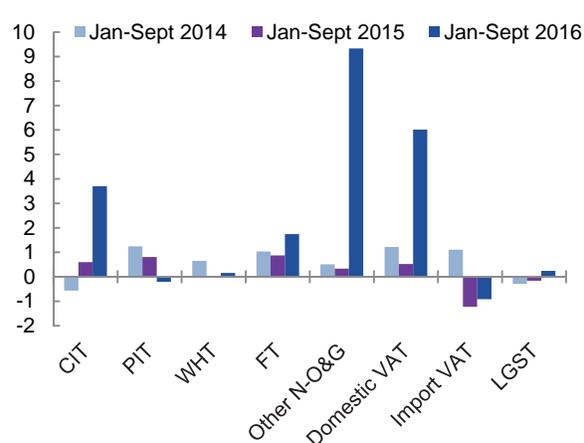
⁵ Wirayani and Parlina, 2016, "Budget Deficit Set to Soar towards Legal Limit", Jakarta Post, September 19, accessed at: <http://www.thejakartapost.com/news/2016/09/19/budget-deficit-to-soar-toward-legal-limit.html>.

Figure 13: Year-to-date total revenue collection growth
 picked-up in the third quarter of the fiscal year...
 (contributions to revenue growth yoy, percent)



Note: O&G stands for oil and gas, N-O&G stands for non-oil and gas; LGST stands for luxury goods sales tax; "Other" includes: property taxes, other tax revenues; non-oil and gas non-tax revenues; other non-tax revenues (profits of public enterprises, revenues from Public Service Agency (BLU), and other non-tax revenues (PNBP).
 Source: MoF; World Bank staff calculations

Figure 14: ... primarily due to increased collection of
 CIT, domestic VAT, and tax amnesty proceeds
 (contributions to revenue growth yoy, percent)



Note: CIT stands for corporate income tax under Article 25 (excl. from extraction of oil and gas); PIT stands for personal income tax collected under Article 21 and Article 25/Personal of the Income Tax Law No. 36 of 2008; WHT stands for withholding tax under Article 22; FT stands for final tax under the Article 4(2) of the Income Tax Law; LGST stands for luxury goods sales tax; Other N-O&G represents non-oil and gas income taxes recorded under all other articles of the Income Tax Law, including the redemption fee under the tax amnesty program.
 Source: MoF; World Bank staff calculations

Some recent tax policy and administration changes may have negatively impacted tax collection

Recent tax policy and administrative changes might have impacted negatively on recent revenue performance. The two increases in the non-taxable income threshold (*Penghasilan Tidak Kena Pajak*, PTKP)⁶ this year contributed partly to a 2.2 percent decline in personal income tax (PIT) collection relative to January-September 2015. This followed another threshold increase in 2015, which was effective retroactively, triggering a seven-fold increase in PIT tax returns from 2015 to 2016 (from IDR 72.8 billion in Jan-Aug 2015, to IDR 494.6 billion in Jan-Aug 2016). Net collection of non-oil and gas corporate income taxes (CIT) recorded nominal growth of 6.2 percent, likely due to a 26.1 percent decline in non-oil and gas CIT returns in Jan-Aug 2016 relative to the corresponding period last year.⁷ In addition, excise taxes contributed -1.0 percentage points to revenue growth, reflecting a regulatory change to the payment of excise taxes by tobacco producers.⁸

Execution of 2016 Budget is constrained by weak revenue collection

Following a strong pick-up in first half of 2016, disbursement of the 2016 revised Budget reached 63 percent by end of September 2016 (a similar disbursement rate to that achieved over the same period last year), likely affected by the Government's expenditure cuts announcement in July. While still low, execution rates for capital

⁶ The first increase from IDR 24.3 million to IDR 36.0 million was implemented in 2015 (Ministry of Finance Regulation PMK-122/2015) and the second increase from IDR 36.0 million to IDR 54 million was introduced in 2016 (Ministry of Finance Regulation PMK-101/2016).

⁷ Gross non-oil and gas CIT receipts recorded a decline of 3.1 percent yoy.

⁸ Ministry of Finance Regulation PMK-20/2015, stating that, starting 2015, all stamp payments have to be made by December 31 of the current year. In the past, producers were allowed to postpone the payment of excise tariffs for 2 months after they ordered the excise stamps, regardless of the month of order. As a result, the Directorate General of Customs and Excises received almost no tobacco excise payments in January and February 2016; the first full-month payment was received in March 2016.

and material expenditures improved, rising to 36 and 57 percent by the end September (compared to 28 and 45 percent over the same period last year), despite the fact that the spending cuts were focused on material expenditure. The realizations of personnel expenditure and interest payments were on track at 69 and 77 percent. At 63 percent, disbursement of regional transfers was slightly lower due to the delay of revenue sharing and DAU transfers, which were part of the recent expenditure adjustments.

To align the budget with macroeconomic developments, the Government has revised down revenue targets, announced expenditure cuts, and expanded the fiscal deficit

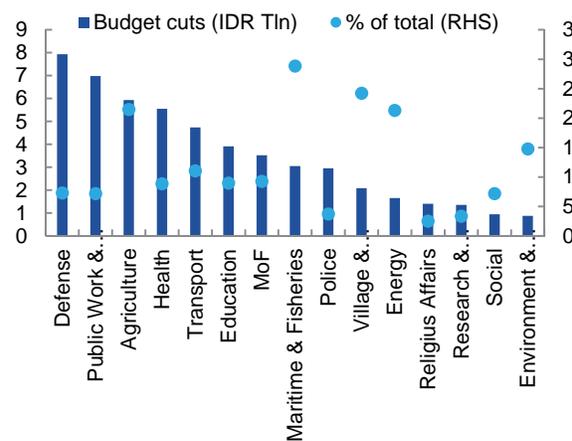
The Government announced further revisions to the 2016 fiscal outlook in July, despite the revised 2016 Budget being approved on June 28.⁹ The projected revenue shortfall increased to IDR 219 trillion from the previous IDR 190 trillion, reflecting weak year to date revenue collection and subdued economic activity. The Government also announced a further round of expenditure cuts totaling IDR 134 trillion (6 percent of total expenditure) focusing on non-priority line ministries' spending (through self-blocking) and postponement of transfers to subnational governments (SNGs). In addition, the Government increased its fiscal deficit forecast to 2.5 percent of GDP (from 2.4 percent of GDP in the revised 2016 Budget), and to 2.7 percent of GDP again in September¹⁰. These measures are expected to better align the budget with macroeconomic developments, preserve priority spending, and reduce the risk of end-year cuts.

Though the cuts focus on non-priority spending, some key line ministries are also affected

The IDR 134 trillion in expenditure cuts are expected to come from both central line ministries (IDR 65 trillion), and transfers to SNGs (IDR 69 trillion). Expenditure cuts at the central government level focus on non-priority spending (such as official travel, meeting packages, honorariums, and other operational expenditure), as well as postponement of programs and activities that have not started¹¹.

Though the spending cuts focus on non-priority spending, some key line ministries—such as the Ministry of Public Work and Housing, the Ministry of Transport, and the Ministry of Agriculture—have still been

Figure 15: Recently announced expenditure cuts in the 2016 revised Budget affected some key line ministries (IDR trillion (LHS); percent of allocation (RHS))



Source: MoF; World Bank staff calculations

⁹ Jakarta Globe, 2016, “Sri Mulyani Gets Straight to Work, Tips Spending Cuts for Ministries and Regions”, 4 August, accessed at: <http://jakartaglobe.beritasatu.com/business/sri-mulyani-gets-straight-work-tips-spending-cuts-ministries-regions/>.

¹⁰ Wirayani and Parlina, 2016, “Budget Deficit Set to Soar towards Legal Limit”, Jakarta Post, September 19, accessed at: <http://www.thejakartapost.com/news/2016/09/19/budget-deficit-to-soar-toward-legal-limit.html>.

¹¹ Presidential Instruction No. 8/2016.

forced to postpone some activities (Figure 15)¹². Expenditure measures for SNGs involve a delay in payment of the last quarter of the General Allocation Fund (DAU) and revenue sharing for fiscally sound SNGs, and cuts to the Special Allocation Fund (DAK) and Village Transfers (*Dana Desa*)¹³.

Looking to 2017, the Government proposed a more realistic revenue target in the draft Budget...

In August, the Government proposed a more realistic draft 2017 Budget (compared to the 2016 Budget) (Table 3)¹⁴. The 2017 Budget is expected to be finalized by the end of October 2016. The fiscal deficit is forecast to be 2.4 percent of GDP, similar to the revised 2016 Budget but lower than the 2016 revised outlook of 2.7 percent of GDP. The revenue target is set at a more realistic level of IDR 1,738 trillion. This is 2.7 percent lower than the revised 2016 Budget target but 10.9 percent higher than the revised revenue outlook announced by the Ministry of Finance (MoF) in July 2016. The projected nominal decline (relative to the revised 2016 Budget) in revenue is mainly driven by a decline in natural resource non-tax revenues and income tax revenues. The draft 2017 Budget assumes all tax proceeds from the tax amnesty program will go towards the 2016 Budget balance. The Government expects that the planned revisions to the general tax (KUP) law, Income tax law, VAT law and stamp duty law will increase tax revenue and help achieve the 2017 revenue target. However, the Government has not provided any details on the potential impact of these planned revisions. The Government is also planning to further increase the excise tax on cigarettes by 10.5 percent in 2017.¹⁵

...and measures to further improve the quality of expenditure

The draft 2017 Budget includes proposed expenditure of IDR 2,070 trillion, slightly lower than that of the 2016 revised Budget, but 6.4 percent higher than that of the Ministry of Finance's 2016 revised outlook. Proposed transfers to SNGs are 2.1 percent lower compared to the revised 2016 Budget, driven by a projected decline in revenue sharing (16.7 percent) and DAK (16.4 percent). However, transfers to Village Funds are 27.7 percent higher (from IDR 47 trillion to IDR 60 trillion). The draft 2017 Budget also includes a proposal to further improve the targeting of electricity subsidies for 450 VA and 900 VA customers categories¹⁶ and RASTRA (the rice for prosperity program) through a voucher distribution mechanism for 1.2 million households (out of 14.3 million recipients).

The World Bank projects 2016 revenues to reach IDR 1,602 trillion, including the tax amnesty proceeds

Given a broadly unchanged 2016 macroeconomic outlook relative to the June IEQ (although now with greater downside risk), and realized outturns from the tax amnesty program, the World Bank projects 2016 revenues to reach IDR 1,602 trillion (Table 5). The first phase of the tax amnesty program has already provided a significant boost to revenue collection of IDR 93.4 trillion. Since the outturns of the second and third phases of the program are still uncertain, the World Bank revenue projection does not take into account any potential proceeds beyond those already

¹² Several national projects were put on hold, such as: Madiun-Kedungbanteng double-track railway project in East Java (part of the trans-Java railway project), Makassar-Parepare railway project in South Sulawesi (part of the trans-Sulawesi project), and port facilities construction in North Sumatra and Maluku. See: Wirayani, Susanty and Ribka, 2016, "Budget Cut Spillovers Loom", Jakarta Post, August 5, accessed at: <http://www.thejakartapost.com/news/2016/08/05/budget-cut-spillover-looms.html>.

¹³ Wirayani, 2016, "Cash-strapped Budget Hits Indonesia", Jakarta Post, September 1, accessed at: <http://www.thejakartapost.com/news/2016/09/01/cash-strapped-budget-hits-ri.html>.

¹⁴ The Budget Committee agreed to revise down their economic growth assumption for 2017 to 5.1 percent from 5.3 percent to minimize the risk of expenditure cuts in 2017.

¹⁵ <http://www.thejakartapost.com/news/2016/09/30/govt-announces-10-54-percent-cigarette-excise-hike-for-next-year.html>

¹⁶ <http://jakartaglobe.beritasatu.com/business/electricity-subsidy-cut-41-2016-pln/>

realized in the first phase of the program. Accounting for the realized collection in the first phase of the program, the World Bank projects the total 2016 revenue shortfall to reach IDR 184.2 trillion (1.5 percent of GDP) relative to the approved Budget target. In line with a more optimistic macro-economic outlook for 2017 and with the expected impact of the ongoing tax administration reforms, the World Bank projects total revenues to reach IDR 1,708 trillion in 2017, 13.2 percent higher than the World Bank's projection for 2016 revenue. This projected increase assumes IDR 98 trillion from improving macro-economic conditions, and IDR 101 trillion from tax administration and policy reform.

The World Bank projects a fiscal deficit of 2.6 percent of GDP for 2016 and 2.8 in 2017

Taking into account significant progress in implementation of the first phase of the tax amnesty program, despite broadly unchanged macro-economic outlook, the World Bank projects fiscal deficit of 2.6 percent of GDP for 2016, slightly lower than the June 2016 IEQ of 2.8 percent of GDP. This slight downward revision assumes the revenues from tax amnesty are used to fund higher productive expenditure than previously projected (June 2016 IEQ), in particular capital expenditure and conditional (DAK) transfers to support infrastructure development. In addition, personnel expenditure is also revised up (relative to the June 2016 IEQ), since it is not part of the announced efficiency measures. On the other hand, material expenditure does not change (relative to the June 2016 IEQ), in line with the announced efficiency measures focusing on this spending. In 2017, the World Bank projects a fiscal deficit of 2.8 percent of GDP, assuming the Government's policy intent to maintain the momentum of public investment especially for priority spending such as infrastructure, and social spending within the fiscal rule. These projected fiscal deficits are higher than the Government's 2016 revised Budget and the 2017 draft Budget of 2.4 percent of GDP.

Gross financing needs have recently increased, however the Government's financing plan tracks the targets well

Gross financing needs have increased in recent years following weak revenue collection, an increasing fiscal deficit, and the new policy to support SOEs through capital injections. In addition, the accumulated arrears of some expenditure categories have also increased in particular energy subsidies and transfers to region.¹⁷ For 2016, the Government recently revised up its gross securities issuance needs for 2016 from IDR 611.4 trillion to IDR 654.4 trillion, in line with the upward revision to the fiscal deficit target from 2.4 percent GDP to 2.7 percent GDP. Realized financing is broadly on track. By October 4, the Government had issued a total of IDR 589.2 trillion in bonds (90.0 percent of the new target).

¹⁷ In the 2015 Audited State Budget, the government reports accumulated arrears by end 2015 of IDR 45 trillion for energy subsidies and IDR 41 trillion for transfers to SNGs

Box 2: The Indonesia tax amnesty program**Design of the program**

The Indonesian Parliament passed a tax amnesty bill on June 28, 2016 (effective on July 18, 2018) to help reach the ambitious 2016 Budget revenue target by expanding the tax base, and to accelerate economic growth through asset repatriation. The tax amnesty program offers reduced tax liabilities for declarations made between July 2016 and March 2017 of previously undeclared assets, with lower tax rates for earlier declarations and for onshore and repatriated offshore assets (compared to non-repatriated offshore assets).¹⁸ Tax payments made on previously undeclared assets are referred to as redemption fees (*Uang Tebusan*). The revised 2016 Budget projected that the program would generate IDR 165 trillion (1.3 percent of 2016 GDP) in revenue from redemption fees paid on declared and repatriated assets (based on the assumption that IDR 1,000 trillion of assets would be repatriated). This estimate was higher than that of the Bank of Indonesia's (IDR 54 trillion revenue, IDR 560 trillion repatriated) and market estimates ranging from IDR 40 to 70 trillion.¹⁹

The Government was confident that the program would achieve its objectives due to pressure from the implementation of the Automatic Exchange of Information (AEOI) legislation between countries by 2018, which requires the global disclosure of assets. The incoming AEOI legislation incentivizes tax evaders to take advantage of the tax amnesty program before the risk of being detected increases.

The tax amnesty program is being presented as a one-time opportunity, and it sets much higher penalties for underreporting of assets or assets declared outside of the amnesty period. Underreported assets or assets declared outside the amnesty period will be treated as additional income and bound by provisions in existing income tax laws and regulations. These include an additional penalty of up to 200 percent of the additional income for underreported assets. An additional feature of the program is that repatriated funds have to be invested in domestic assets for a minimum three-year period. Similarly, declared domestic assets cannot be transferred overseas for a three-year period. A breach of this commitment would result in the declared assets being liable to standard income taxes.

Progress to date

The first phase of the program received significant interest, with IDR 3,824 trillion in assets declared by October 11th and IDR 93.4 trillion in redemption fees collected (0.7 percent of GDP) (Table 4). In addition, the Directorate General of Tax collected a further IDR 3.1 trillion in tax arrears (payment of tax arrears is an eligibility requirement for the amnesty program).

The progress in tax collection, through both redemption fees and collection of tax arrears, suggests that the Government's objective of increasing revenue collection in 2016 via the tax amnesty program will be partly met. However, meeting the other objectives of the program—expansion of the tax base and boosting economic growth and investment through the repatriation of assets—will be more challenging as the value of repatriated assets remains very low. Thus far, the macroeconomic impacts of the tax amnesty have been benign. Fears of inflationary pressure, rapid exchange rate appreciation and “hot money” inflows have not materialized.

Table 4: Revenue collection from the tax amnesty program has reached more than 50 percent of the target
(IDR trillion, unless otherwise indicated)

Total declared	Assets			Tax	
	On shore	Off shore (total)	Off shore (repatriated)	Collected	% of the target
3,824	2,700	1,124	143	93.4	56.6

Source: MoF; World Bank staff calculations

¹⁸ 2(4) percent in July-September 2016, 3(6) percent in October-December 2016, and 5 (10) percent in January-March 2017. Rate in parentheses applicable to off-shore declared but not repatriated assets.

¹⁹ The AEOI is expected to come into effect starting 2018. AEOI requires Reporting Financial Institutions (RFI's) to report to the tax authority (TA) of their country, which will then exchange the information with the TA of another country. As of November 2015, 96 countries have committed to begin the AEOI in accordance with the Standard by 2017 or 2018 reciprocally and with appropriate partners; 74 countries have signed a multilateral competent authority agreement ("MCAA") which permits participating countries to enter into agreements that provide for the AEOI. According to different sources, most of Indonesian off-shore assets are located in Singapore. As of now, Singapore has committed to the AEOI but has not signed the MCAA. Once both countries have signed the MCAA, RFIs in Singapore would then have to report information to Singapore's Tax Authority. The information would then be exchanged with Indonesia's tax office. Source: Credit Suisse, 2015.

Table 5: The World Bank projects lower revenue and expenditure than in the 2016 Budget
(IDR trillion, unless otherwise indicated)

	2015 Actual audited	2016 Budget	2016 Revised Budget	2016 Jan – Sept	2017 Proposed Budget	2016 World Bank	2017 World Bank
A. Revenues	1,508	1,822	1,786	1,081	1,738	1,602	1,708
(% of GDP)	13.1	14.6	14.3	8.7	12.7	12.9	12.5
1. Tax revenues	1,240	1,547	1,539	896	1,496	1,397	1,482
(% of GDP)	10.7	12.4	12.3	7.2	10.9	11.2	10.8
Income taxes	602	757	856	501	785	749	760
Oil & Gas	50	41	36	25	33	23	23
Non-Oil & Gas	553	716	819	477	752	726	737
VAT/LGST	424	572	474	270	494	456	510
Property taxes	29	19	18	16	17	18	19
Excises	145	146	148	79	157	134	148
International trade taxes	35	40	36	25	34	35	39
Import duties	31	37	33	23	34	31	36
Export duties	4	3	3	2	0	4	4
Other taxes	6	12	7	5	9	6	7
2. Non-tax revenues	256	274	245	184	240	203	223
(% of GDP)	2.2	2.2	2.0	1.5	1.8	1.6	1.6
Natural resources revenues	101	125	91	37	80	48	53
Oil & Gas	78	79	69	23	57	26	29
Non-Oil & Gas	23	46	22	14	23	22	24
Other non-tax revenues	155	149	155	147	160	155	170
3. Grants	12	2	2	1	1	2	3
B. Expenditures	1,806	2,096	2,083	1,305	2,070	1,924	2,088
(% of GDP)	15.6	16.8	16.7	10.5	15.1	15.4	15.2
1. Central government	1,183	1,326	1,307	768	1,310	1,193	1,356
(% of GDP)	10.3	10.6	10.5	6.2	9.6	9.6	9.9
Personnel	281	348	343	236	n.a.	326	353
Material	233	325	281	159	n.a.	225	237
Capital	215	202	227	83	n.a.	216	296
Interest payments	156	185	191	147	221	191	219
Subsidies	186	183	178	104	175	172	180
Energy	119	102	94	68	92	106	102
Fuel	61	64	44	30	n.a.	43	57
Electricity	58	38	51	38	n.a.	63	45
Non-energy	67	81	83	36	83	66	78
Grants	4	4	9	1	2	2	2
Social	97	55	55	35	n.a.	54	61
Other	10	25	23	4	n.a.	6	7
2. Transfers to regions	623	770	776	538	760	731	732
(% of GDP)	5.4	6.2	6.2	4.3	5.5	5.9	5.3
Overall Balance	-298	-274	-297	-224	-333	-322	-380
(% of GDP)	-2.6	-2.2	-2.4	-1.8	-2.4	-2.6	-2.8
<i>Assumptions</i>							
Real GDP growth rate (%)	4.8	5.3	5.2		5.3	5.1	5.3
CPI (%)	6.4	4.7	4.0		4.0	3.9	4.6
Exchange rate (IDR/USD)	13,458	13,900	13,500		13,300	13,300	13,300
Crude-oil price (USD/barrel)	51	50	40		45	41	51

Note: The World Bank projection does not include potential revenues from the tax amnesty.

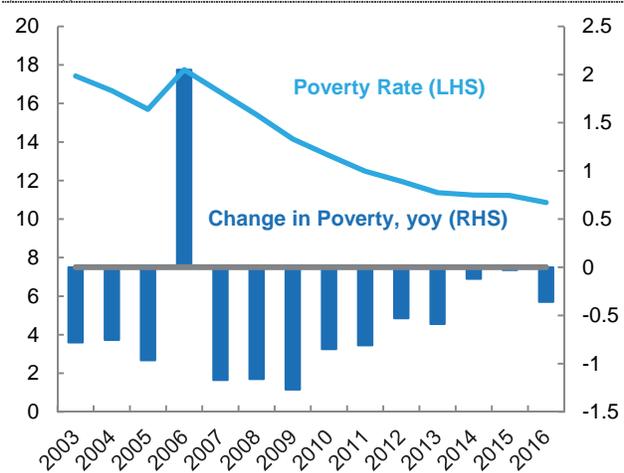
Source: MoF

7. After years of stagnation, poverty and inequality are falling again

March 2016 data show the first significant yoy reduction in poverty in the past 3 years

The official poverty rate fell by 0.4 percentage points over the year to be 10.9 percent in Q1 2016. This was the largest yoy decline in the last 3 years, as the poverty rate almost remained flat between 2013 and 2015 (Figure 16). However, this decline is still lower than the rates of reduction achieved between 2007 and 2011, which averaged 1.05 percentage points per year.

Figure 16: Poverty reduction in 2016, though greater than in recent years, remains slower than before 2011 (poverty rate, percent (LHS), change in poverty, percentage points (RHS))



Source: Susenas

Stable food prices, particularly for rice, contributed to poverty reduction

Moderating inflation and stable food prices (see Section 3 above) have also contributed to poverty reduction (since food prices feed into the calculation of the poverty line). In particular, improved management of rice imports and market operations by the government in late 2015 and early 2016 curbed rice price inflation during a typically volatile time of year. Between October 2015 and March 2016, Indonesian Bureau of Logistics (*Badan Urusan Logistik*, Bulog) imported 1.49 million tons of rice and channeled over 177,000 tons through open market operations. As a result, the March 2016 poverty line increased by only 7.2 percent yoy to IDR 354,386 per 6-month semester, lower than the poverty line increases between 2014-2015 (9.26 percent) and 2013-2014 (11.45 percent).

Social assistance expansion could also have contributed to poverty reduction

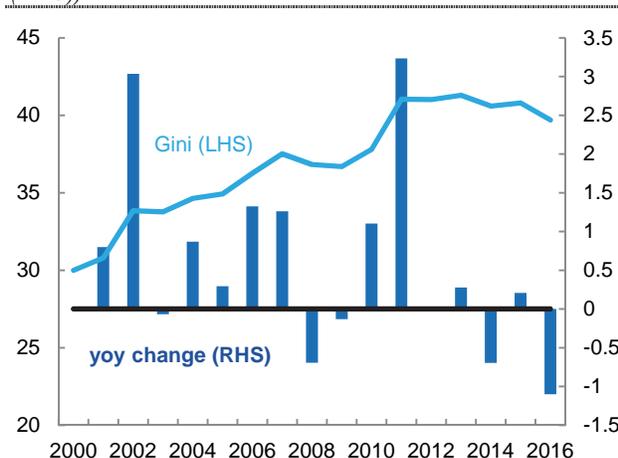
Expansions in social assistance programs may also have driven poverty reduction over the past year. For example, the Family Hope conditional cash transfer program (*Program Keluarga Harapan*, PKH) was expanded from 2.8 million households to 3.5 million households in late 2015. World Bank simulations suggest that the expansion of this cash transfer contributed as much as 0.1 percentage points to poverty reduction, or nearly one-third of the total observed decline. The planned expansion of PKH to an additional 2.5 million households in 2016 could further boost poverty reduction by as much as 0.4 percentage points.

One measure of inequality has fallen significantly in the past year

The Gini coefficient for March 2016 was 39.7, falling by 1.1 points from 40.8 in March 2015. This is the largest annual drop in the Gini since the Asian financial crisis and one of only three substantive falls in the last 15 years. The Gini has been relatively flat since 2011, but this year the Gini coefficient fell below 40. More time is needed to see whether this marks the beginning of a period of falling inequality.

Figure 17: The Gini coefficient in 2016 dropped below 40 for the first time since 2011

(Gini coefficient, points (LHS), change in Gini coefficient, points (RHS))



Source: Susenas

The Gini is falling because the Middle 40 is catching up to the Top 20, but the Bottom 40 are still lagging behind

The major driver of this reduction is that the share of total national consumption of the Middle 40 percent of households (Quintiles 3 and 4) has increased at the expense of the

Table 6: Inequality has fallen due to increasing Middle 40 consumption, but Bottom 40 consumption has decreased

(distribution of national consumption in Indonesia, percentage of total, March 2015 – March 2016)

Period	Bottom 40	Middle 40	Top 20
March 2015	17.1	34.7	48.3
March 2016	17.0	36.1	46.9
Change, 2015-2016	-0.1	+1.4	-1.3

Source: Susenas

Top 20 percent of households (Quintile 5) (see Table 6). With Indonesia's rising inequality since the early 2000s being driven by fast growth in the consumption of the Top 20, this latest development indicates that the Middle 40 may be starting to catch up. However, the consumption of the Bottom 40 has not been catching up to either of the other two groups. In fact, their consumption share fell slightly over the year, meaning Indonesia's growth is still far from equitably distributed.

Ultimately, sustained improvements in fiscal policy are still needed

In order to continue the acceleration of poverty reduction and sustain the trend of falling inequality, improvements in fiscal policy are needed. In particular, Indonesia must spend more on the programs that are most cost-effective at reducing inequality, such as direct transfers to poor and vulnerable households. Recent success in this area includes the previously-mentioned expansion of PKH. In addition, Indonesia must also collect more tax revenues in ways that are progressive²⁰.

²⁰ For an in-depth look at the impact of Indonesia's fiscal policy on inequality, see Section 2, Part C of the June 2016 IEQ.

8. Potential headwinds to the macro-fiscal outlook from external factors remain elevated

Downside risks from the global environment and commodity prices remain

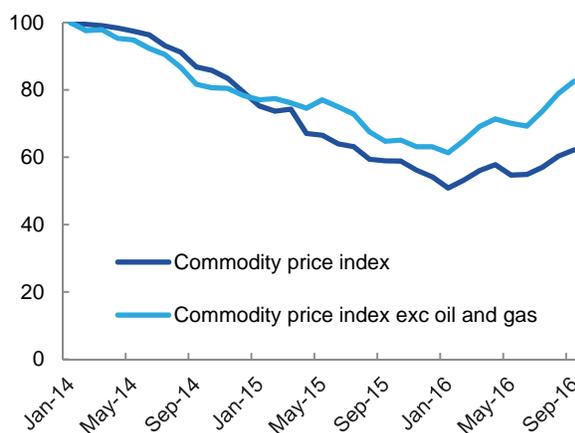
For Indonesia, risks from the international environment stem from slower than expected growth in advanced economies. This is compounded by a stop-start recovery in the US and uncertainty around interest rate normalization by the US Federal Reserve. The growth outlook for Europe also remains subdued with lower than expected annual growth rates for most major economies in the region. Political uncertainty in the aftermath of Brexit continues to weigh on growth prospects for the UK. In addition, the recent increase in major commodity prices is not likely to be sustained given a moderate global growth outlook in the medium-term.

Although room for more expansionary fiscal policy is constrained, a credible budget can support business confidence

In Indonesia, while monetary policy space exists, fiscal policy space remains constrained by weak revenue collection. Indeed, the Government has announced revenue shortfall figures for 2016 and has begun to cut expenditure (see Section 6). While the expenditure cuts will not affect priority spending, they will affect several infrastructure-related line ministries. While Government expenditure in the first half of 2016 has been the main driver of growth, this is not expected to continue in light of these announced cuts. An upside risk from the tax amnesty program has partly materialized, but the benefits will depend on the quality of spending from the collected revenue. The Government's announced revenue shortfall figures were seen as more realistic than those in the past. This improved budget credibility can help lower uncertainty for businesses and support further improvements in business confidence.

Figure 18: The pick-up in commodity prices may be temporary

(Indonesia commodity price index, index 2014=100)



Source: World Bank; World Bank staff calculation

B. Some recent developments in Indonesia's economy



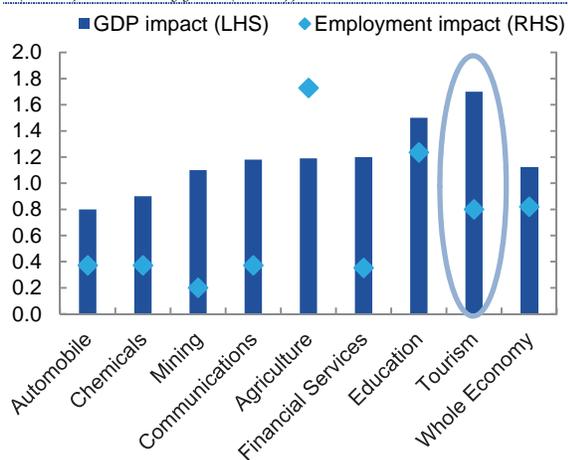
1. Accelerating tourism development

Tourism is a promising growth sector in the Indonesian economy

Tourism is a promising sector that could unlock private investment, foster inclusive and job-rich growth, boost export earnings, and guide a targeted infrastructure investment program in tourism destinations. If planned and managed well, tourism can generate large employment and income multipliers for Indonesia, which can contribute to eliminating poverty and increasing shared prosperity. Ten million additional international tourists and an increase in spending per tourist to Thailand's level (that is, 1.5 times Indonesia's current average) would bring USD 16 billion in additional foreign exchange earnings annually. According to the World Travel and Tourism Council (WTTC), in Indonesia, every USD 1 million in travel and tourism spending supports around 200 jobs (of which 67 are direct jobs) and USD 1.7 million in GDP (Figure 19).²¹ With tourism destinations spread across the archipelago, tourism can also help reduce regional disparities within Indonesia.

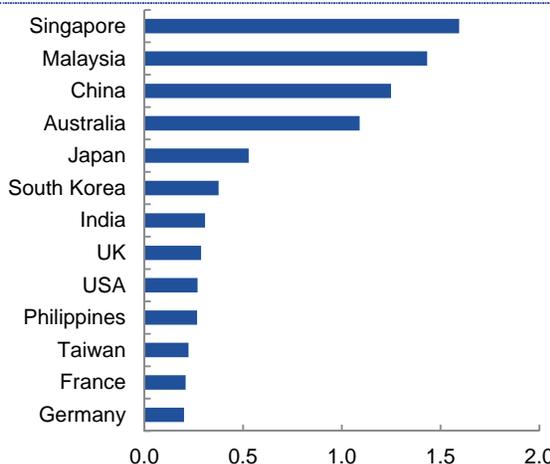
²¹ WTTC, 2015, "Indonesia: How does Travel and Tourism compare to other sectors?," Benchmark report.

Figure 19: Spending on tourism in Indonesia has high GDP and employment impacts relative to spending in other sectors
(impact from USD 1 million in sector spending, USD million (LHS); number of jobs (RHS))



Source: WTTC

Figure 20: The Asia Pacific market is key for Indonesia's tourism growth
(number of visitors, millions)



Source: BI; World Bank staff calculations

Indonesia has rich tourism endowments...

Indonesia has the potential to develop a world-class tourism industry, benefitting from its rich tourism endowments and building on the success of Bali. The World Economic Forum's *Travel and Tourism Competitiveness Report 2015* ranks Indonesia 17th (out of 141 countries) on the national and cultural resources sub-index, which captures the principal reasons to travel (Table 7). However, on other indicators, such as enabling environment, infrastructure and environmental sustainability, Indonesia is lagging behind. Overall, Indonesia ranks 50th in the Travel and Tourism Competitiveness Index, behind Thailand (35th), Malaysia (25th) and Singapore (11th). In 2015, Indonesia's total number of international visitor arrivals was 10.2 million, while Thailand and Malaysia recorded 29.9 million and 25.7 million international visitor arrivals respectively.²²

Table 7: Indonesia is globally competitive in natural and cultural resources, but faces infrastructure and enabling environment constraints

(Travel and Tourism Competitiveness ranking out of 141 countries)

Overall 2015 rank	50
Enabling environment	80
Business environment	63
Safety and security	83
Health and hygiene	109
Human resources and labor market	53
ICT readiness	85
Travel & Tourism policy and enabling conditions	9
Prioritization of Travel and Tourism	15
International openness	55
Price competitiveness	3
Environmental sustainability	134
Infrastructure	75
Air transport infrastructure	39
Ground and port infrastructure	77
Tourist service infrastructure	101
Natural and cultural resources	17
Natural resources	19
Cultural resources and business travel	25

Source: World Economic Forum, "Travel and Tourism Competitiveness Report, 2015"

²² Statistics Indonesia (*Badan Pusat Statistik*, BPS), 2016, International Visitor Arrival Statistics, 2015; Ministry of Tourism and Culture of Malaysia, <http://www.tourism.gov.my/statistics>; Thailand's Department of Tourism, <http://www.tourism.go.th/home/details/11/221/24710>.

... and can tap into the booming global tourism demand

Global, regional and domestic tourism demand is growing. Worldwide, the tourism industry is projected to grow by 4.2 percent in real terms per annum over the next decade, outpacing global economic growth. China continues to lead global outbound travel, which in turn benefits near-by Asian destinations. Spending by Chinese outbound travelers increased 25 percent in 2015 to reach USD 292 billion, as total Chinese outbound travelers rose 10 percent to 128 million, and spending per traveler also rose.²³ In 2015, Singapore, Malaysia, China, Australia, and Japan were the top five sources of visitors to Indonesia (Figure 20). International visitor arrivals in Indonesia increased by 8.4 percent in 2015 and the average length of stay increased by 11 per cent to 8.53 days. However, daily expenditures decreased from USD 154 per day in 2014 to USD 142 per day in 2015. Trips by domestic travelers in Indonesia in 2015 increased to 255 million from 251 million in 2014.²⁴

The Government aims to transform Indonesia's economy through an ambitious plan for tourism development

To fulfil Indonesia's tourism potential, the Government has identified ten tourism destinations for priority development, with an emphasis on closing their infrastructure gap.²⁵ The Government's National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional, RPJMN*) 2015-2019, sets a number of objectives to increase the role of tourism in the Indonesian economy. In 2015, the Ministry of Tourism's budget for promotional activities quadrupled from IDR 300 million to IDR 1.2 trillion. In March 2016, the Indonesian Government extended its free visa facility to 169 countries to attract more foreign tourists. However, promotion alone, without policy reform and targeted infrastructure investments for multiple destinations, can overcrowd established destinations such as Bali, erode natural and cultural resources, and spoil the Indonesian "brand". Recognizing this, in late 2015 President Joko Widodo urged his Cabinet to accelerate the development of the ten priority tourism destinations.

a. Improving infrastructure and planning for sustainable tourism growth

Infrastructure development is required to improve the accessibility and carrying capacity of tourist destinations...

Indonesia ranks in the bottom half of countries on several infrastructure-related tourism competitiveness indicators (Table 7)—ground and port infrastructure, tourist service infrastructure (e.g. hotels, car rental companies), health and hygiene (e.g. access to sanitation), ICT readiness, and environmental sustainability (e.g. wastewater treatment). To address this, the Government plans to invest in air, water, and road connectivity, basic infrastructure and services, and tourism infrastructure and services.

... and should be carefully planned to ensure environmental sustainability...

Between 2013 and 2015, Indonesia's performance deteriorated on two tourism competitiveness indicators: natural resources (from 6th to 19th) and environmental sustainability (from 125th to 134th). Poor access to basic services, such as water supply, sanitation, sewer connections, and solid waste collection, has already eroded natural assets in some tourist destinations in Indonesia. In addition, rapid unmanaged growth of the tourism industry could further decrease the competitiveness of the assets on which future growth in tourism depends. The experiences of Nepal, Cambodia and Kenya suggests that such an outcome can be

²³ WTTC, 2016, "Travel and Tourism: Economic Impact 2016": World; UNWTO, 2016, World Tourism Barometer, Volume 14, May.

²⁴ Ministry of Tourism, 2015, "Passenger Exit Survey 2015"; and BPS, 2016, "International Visitor Arrival Statistics 2015".

²⁵ Lake Toba, Lombok, Borobudur, Thousand Islands, Labuan Bajo on Flores island, Wakatobi, Morotai, Belitung, Mount Bromo, and Tanjung Lesung (Ujung Kulon, Krakatau, Carita).

difficult to manage or reverse, resulting in a continued decline in the value of tourism endowments.

...through integrated tourism masterplans

The Government plans to prepare integrated tourism masterplans for each of the priority tourism destinations, which could provide a strong framework for effective and sustainable tourism development. These will guide the scale and spatial location of future growth, as well as establish policies and practices to ensure key assets are protected and environmental impacts are properly managed and monitored. Masterplans will be informed by detailed tourism demand projections, leading to assessments of the scale and type of public and private investments required to support this future growth. The masterplanning process will also incorporate a comprehensive consultation program, ensuring all stakeholders have a chance to contribute. Strong coordination capabilities and mechanisms are necessary to make this comprehensive consultation happen, but are not yet in place.

b. Attracting investors and promoting linkages to the local economy

The Government expects significant private investment in the tourism sector...

The Government expects significant private investment in the tourism sector, and early indicators are promising. Total foreign and domestic direct investment in hotels and restaurants, a relevant indicator of the tourism sector, reached nearly USD 1 billion in 2015—an increase of 45.5 percent compared to 2014, while the number of investment licenses approved in the hotel and restaurant sectors quintupled, from 52 in 2014 to 266 licenses in 2015.²⁶

...but licensing processes and promotion efforts need to be strengthened

However, to achieve the Ministry of Tourism's targeted USD 10 billion in private investment in the 10 tourism destinations by 2019, further efforts to attract investment are needed. Licensing simplification is one important aspect. As a first step, it will be essential to establish an inventory of the number and type of business licenses needed (at the national and subnational level) to establish a tourism-related business. The revision of the Negative Investment List (*Daftar Negatif Investasi*, DNI)²⁷ earlier this year has further opened the tourism sector to foreign investment, although limitations remain. In other business fields maximum foreign capital allowances have been relaxed, but not removed altogether.²⁸ Moreover, ground transportation rental, a tourism-related business area, has not been opened to foreign investors. This can affect the range and quality of car rental offerings and tour operations.

Increased tourist spending can generate significant local economic gains....

Tourist spending can generate significant economic gains in tourist destinations, if mostly spent on locally produced goods and services. Data from Indonesia's input-output tables²⁹ suggests that the majority of tourist spending stays in the Indonesian economy; around 20 percent of the spending goes towards imported goods and services. The share that stays in the economy (i.e. for local goods and services) has strong subsequent multiplier impacts as a result of indirect effects (the resulting increase in output and employment for other sectors supplying inputs to support

²⁶ Investment Coordinating Board, <http://www.bkpm.go.id/en/investing-in-indonesia/statistic>. Total direct investment in hotels and restaurants consist of USD 650.2 million FDI and IDR 4 trillion domestic investment.

²⁷ Presidential Regulation No.44/2016.

²⁸ Maximum foreign capital allowances remain at 51 percent for ecotourism facilities and spas, and 67 percent (or 70 percent for investors from ASEAN countries) for travel agencies, non-star, one and two star hotels, motels, and organizers of meetings, incentives, conferences, and events (MICE).

²⁹ Drawn from the tourism satellite account produced by Statistics Indonesia (*Badan Pusat Statistik*, BPS) and the Ministry of Tourism, which are available at the national level and for certain provinces.

the rise in tourism spending), and induced effects. That is, the additional spending by those deriving income from growing tourism activity. Some studies suggest that the total impact of tourism spending can be 1.7 to 3 times its direct impact.³⁰

...but capacities of local firms and workers to participate in the tourism economy remain limited

However, in the absence of improvements in local capacities, firms and individuals will struggle to participate in and benefit from the economic opportunities created by the development of selected destinations outside Bali. Outside of Bali, Indonesia's workforce has limited skills to provide a full range of tourism experiences (such as tour guides, cuisine, cultural heritage) in a profitable and sustainable manner. Furthermore, most firms in the less developed and emerging destinations do not meet the goods and services quality standards needed to serve as suppliers for the international-class hotels and tourism operators these destinations aim to attract.

c. Strengthening coordination and implementation capabilities to achieve results

Coordination and planning are critical for effective destination development, but are still largely absent

Tourism destination development requires a combination of closely aligned public and private interventions and inter-ministry/agency coordination at the national and subnational level. At the national level, these coordination mechanisms are already being developed. However, given that Indonesia is highly decentralized, provincial- and destination-level coordination mechanisms and implementation capabilities are also critical, but are still weak or absent. Furthermore, private sector representation at all levels—important for gauging and testing investor interest—would need to be ensured through coordination team membership, regular invitations to meetings, and/or observer status.

Even with a full range of integrated public support, risks remain...

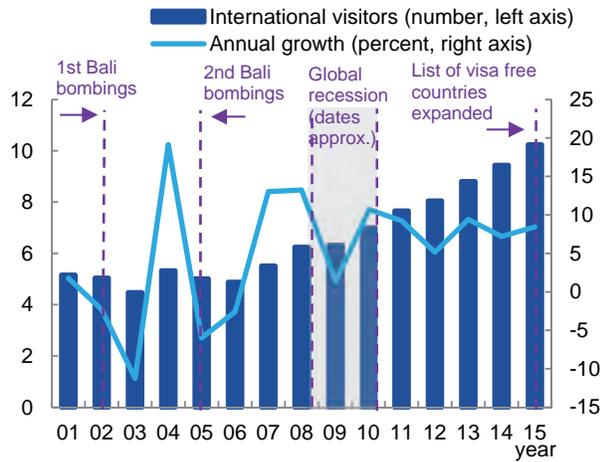
Even with a full range of integrated public support, risks to tourism growth remain. Visitor numbers declined 11.3 percent in the year following the first Bali bombing in October 2002, and 8.6 percent in the two years following the second Bali bombing. The most recent attack in Jakarta in January 2016, along with a heightened global awareness of security issues (particularly amongst western tourists), are likely to be dampening factors in the immediate outlook for international tourism to Indonesia (Figure 21). While the impact of sporadic attacks tends to be more short-term, the impacts increase as attacks become more frequent. Foreign tourist arrivals to Turkey for the first six months of 2016 were down 4.15 million or 27.8 percent compared to the same period the previous year following the regular pattern of terrorist attacks.³¹

³⁰ Recent WTTC studies of Indonesia's tourism sector suggest spending multiplier values ranging from 1.7 to 3.

³¹ Turkey's Ministry of Culture and Tourism, <http://www.kultur.gov.tr/EN,162852/number-of-arriving-departing-visitors-foreigners-and-ci-.html>

Figure 21: Foreign visitor numbers have steadily gone up since 2006, but visitor growth has been uneven and affected by externalities

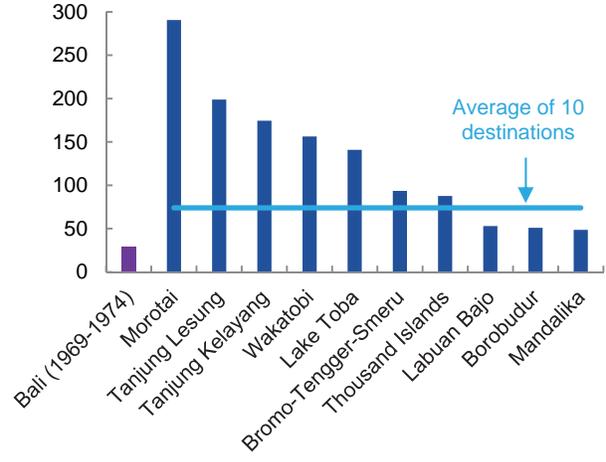
(international visitor arrivals 2001-2015, in million (LHS), percent (RHS))



Source: BPS; World Bank staff calculations

Figure 22: Foreign visitor growth targets for the 10 priority destinations are higher than the growth Bali achieved during its 5 fastest-growing years

(fastest 5-year CAGR of foreign visitors in Bali's history compared to implied 2014-2019 CAGR in 10 destinations)



Note: CAGR stands for compound annual growth rate
 Source: World Bank Bali Tourism Project Completion Report; Ministry of Tourism 10 destination development plans; BPS.

...suggesting the need for continuous monitoring and revision

Flexibility will be needed in Indonesia's ambitious plans for accelerating ten tourism destinations to adjust to global and domestic market dynamics and local conditions. The international visitor growth targets for the ten priority destinations are ambitious and higher than the growth Bali achieved during its five fastest-growing years (Figure 22). The targets need to be backed by an assessment of market demand and investor interest. Detailed data on tourist numbers and their profiles is already available, as are statistics on hotels and tourism-related investments. However, the statistics will need to be better consolidated and more systematically analyzed to enable holistic tracking of the Government's efforts and results and inform potential mid-course corrections.

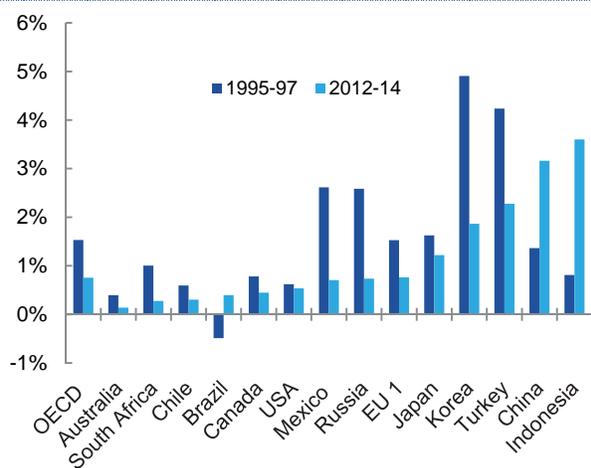
2. Why should Indonesia reframe and reorient its food security policy?

Food security is a long-standing area of national policy attention

In recent years, food security policy has been framed by the Food Law 2012 which defined core objectives in terms of (i) ensuring physical and economic access for the entire population to food which is diverse, safe and nutritious; (ii) improving the welfare of farmers; (iii) minimizing reliance on imports for core staple foods; and (iv) achieving overall ‘food sovereignty’ (that is, being in control of the country’s own food circumstances). Long-standing policy instruments have included public investments, input and credit subsidies, trade restrictions, state enterprise food market interventions and storage, and social safety nets.

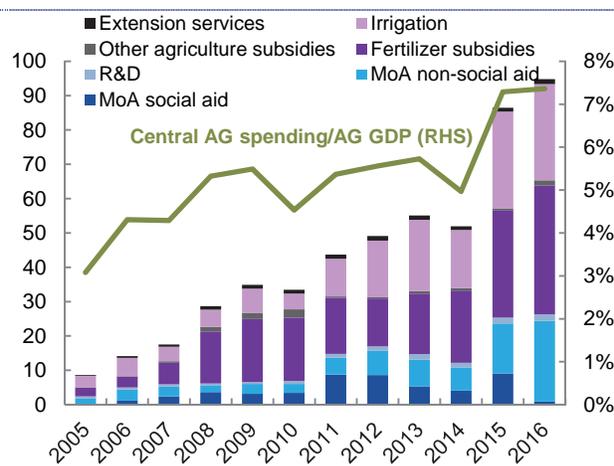
Figure 23: Indonesia’s total support to agriculture is rising and already higher than that of other emerging and OECD countries

(total support to agriculture as percent of agricultural gross receipts; 1995-97 vs 2012-14)



Source: OECD 2016. Agricultural Policy and Evaluation Report

Figure 24: Central Government spending on agriculture has increased faster than agriculture GDP
(IDR trillion, LHS; percent, RHS)



Note: Spending figures refer to realized spending up until 2015 and the revised Budget for 2016. MoA reclassified the majority of its social aid spending to goods and services in 2016.
Source: World Bank COFIS database using MoF data

Over the past decade, the Government has substantially increased its spending in order to achieve food security goals

Indonesia’s total support to agriculture³² is proportionally the highest and fastest growing among OECD countries and middle income peers (Figure 23). In 2015, the total support to agriculture in Indonesia was equivalent to 4.6 percent of GDP compared with 3.2 percent for China, 1.0 percent for Japan, 0.7 percent for the European Union, 0.5 percent for Vietnam, and 0.4 percent for the United States—countries and regions that are typically thought to provide high levels of protection and support to agriculture. A significant proportion of Indonesia’s public spending for agriculture has gone to subsidize fertilizer and other inputs (Figure 24), while there has been a long-term underinvestment in the types of public goods vital for agricultural productivity and competitiveness. These public goods include: research

³² Defined by the OECD as the monetary value of gross transfers from taxpayers and consumers arising from policy measures that support agriculture. This includes public investments, subsidies, market price support measures, etc. This is a much broader category than ‘public expenditure’ in agriculture.

and development (R&D), infrastructure, farm advisory services, agricultural education, plant protection, animal disease control, and food safety.³³

a. **There growing concerns about the efficacy of Indonesia's food security policies and public spending**

Indonesia's consumers are paying exceptionally high prices for food

Since the beginning of this decade, domestic retail prices for rice have been 50 to 70 percent higher than those in Vietnam, Thailand, and other countries in the Greater Mekong Region (Figure 25). Indonesian consumers are also paying very high prices for foods rich in protein and micronutrients, including most fruits and vegetables and poultry products. One study found that prices of these higher nutrient foods are substantially higher in Indonesia than in Singapore, a country which lacks an agricultural sector and imports nearly all of its food.³⁴ Furthermore, price levels have continued to diverge. While international prices for cereals have fallen sharply since mid-2012, Indonesia has continued, until very recently, to experience moderate to high food inflation.

Indonesia's food trade restrictions and other policy interventions impose a massive 'tax' on consumers

The OECD³⁵ estimates that over the 2013-2015 period, Indonesian consumers were 'taxed' the equivalent of USD 98 billion as a result of restrictions placed on the imports of staple and higher value foods, and the impacts of domestic agricultural and food market interventions by the Government (Figure 26).³⁶ In 2015 alone, the cost burden on Indonesian consumers was estimated at USD 36 billion, much higher than an estimated burden of USD 22 billion for the entire (28 country) European Union, a region whose long-standing agricultural and other policies have been known to substantially increase food prices for consumers. In per capita terms, the tax on Indonesian consumers was USD 1300 in 2015 compared with USD 437 in the European Union, and USD 189 in Vietnam. Such aggregate policy impacts have, at least in the past, undercut Indonesia's broader efforts to improve food security and nutritional outcomes.

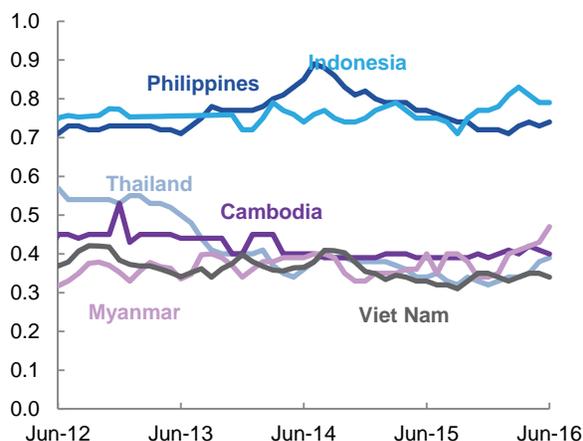
³³ International experience indicates the superiority of public investment over subsidies in promoting agricultural productivity growth and rural poverty reduction. For example, one study of 15 Latin American countries found that a reallocation of 10 percent of agricultural spending from subsidies to public goods was associated with an increase in per capita agricultural income by 2.3 percent. See: R. Lopez and G. Galinato, 2007, "Should governments stop subsidies to private goods? Evidence from rural Latin America", *Journal of Public Economics*, 91 (5), p. 1071-1094.

³⁴ In February 2015, the prices for carrots, mangoes, and oranges were 50 percent higher in Jakarta than in Singapore, while eggs, honey and chicken were over 25 percent more expensive. See S. Marks, 2015, "Non-tariff Trade Regulations in Indonesia: Measurement of their Economic Impact", Working Paper, Australia Indonesia Partnership for Economic Governance.

³⁵ The database link can be found in OECD, 2016, *Agricultural Policy and Evaluation Report*.

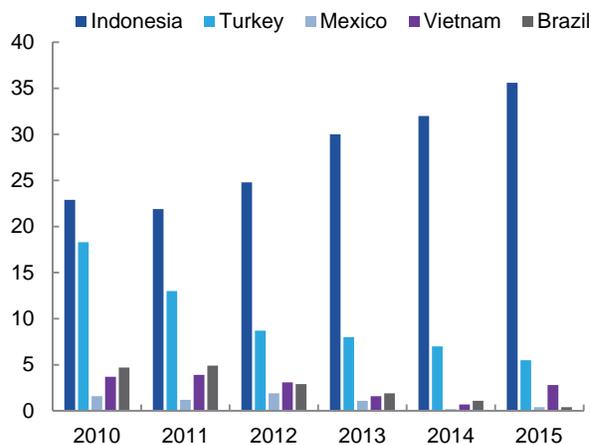
³⁶ Analysis provided in the June 2016 edition of the IEQ highlighted that non-tariff measures implemented on wheat imports between 2008 and 2014 resulted in the price of wheat flour being 22 percent higher than it would have been without such measures. Restrictions on the use of Jakarta port for fruit and vegetable imports, begun in 2012, have resulted in significantly higher prices for certain items in Jakarta in comparison with Surabaya, the required port of entry.

Figure 25: Retail prices for rice are higher in Indonesia and the Philippines
(USD/ton)



Source: FAO GIEWS

Figure 26: The implicit tax on food consumers in Indonesia is very large, and has continued to increase while falling elsewhere
(USD billions)



Source: OECD Agriculture Statistics

The adverse impacts of high food prices are most significant for the poor and near poor...

According to Susenas 2013 data, the budget share of food for households at the lowest decile of per capita expenditure was 61 percent. For households up to and including the seventh decile, the budget share of food still exceeded 50 percent compared with only 30 percent for those in the richest decile. For the entire population, rice accounted for 8 percent of total spending and 18 percent of food expenditure. For the poorest decile, however, these shares were 22 percent and 35 percent, respectively. Nationally, 92 percent of households are net buyers of rice. Even though many of the nation’s poor are rice farmers, more than 87 percent of poor households buy more rice than they sell. High rice prices also crowd out spending by the poor on more nutritious foods.³⁷ As a result, Indonesia has continued to score poorly in national measures of dietary diversity and quality.³⁸ Several studies suggest that Indonesia’s poor and near-poor have not been able to afford a nutritiously balanced diet.³⁹

³⁷ Analysis by the World Bank suggests that an 11 percent increase in rice prices reduces rice consumption by only 0.08 percent, yet has a spiraling effect of reducing vegetable and fruit consumption by 3.2 percent and 4.2 percent, respectively. For an earlier analysis of cross-price elasticities, see A. Widaryono, 2012, “An Analysis of Protein and Calorie Consumption in Central Java”, *Economic Journal of Emerging Markets*, October 4(2), p. 115-126.

³⁸ In the Economist Intelligence Unit’s 2015 Global Food Security Index ratings, Indonesia’s score for dietary quality was ranked 88th of the rated 109 countries. All of the 21 countries rated lower are low income countries.

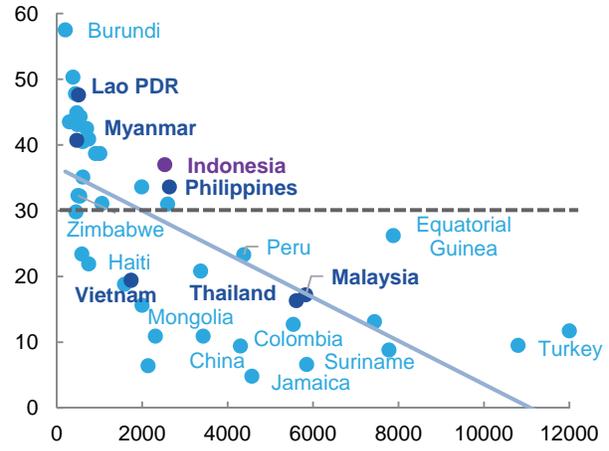
³⁹ For example: World Food Programme, 2012, “Minimum Cost of a Nutritious Diet: First Results in Indonesia”, Jakarta.

...contributing to limited progress in improving Indonesia's nutritional outcomes

Higher national cereals production over the past decade has not translated into improved nutritional outcomes—nationally and especially among the eastern islands. With an under 5 child stunting rate of 37 percent in 2013, and a widespread incidence of micronutrient deficiencies, Indonesia's nutritional status is more akin to a low income country than a rapidly growing and urbanizing middle income country (Figure 27). Despite growing recognition of this undernutrition problem, there has been little progress in reducing stunting rates since the mid-2000s (Figure 28).

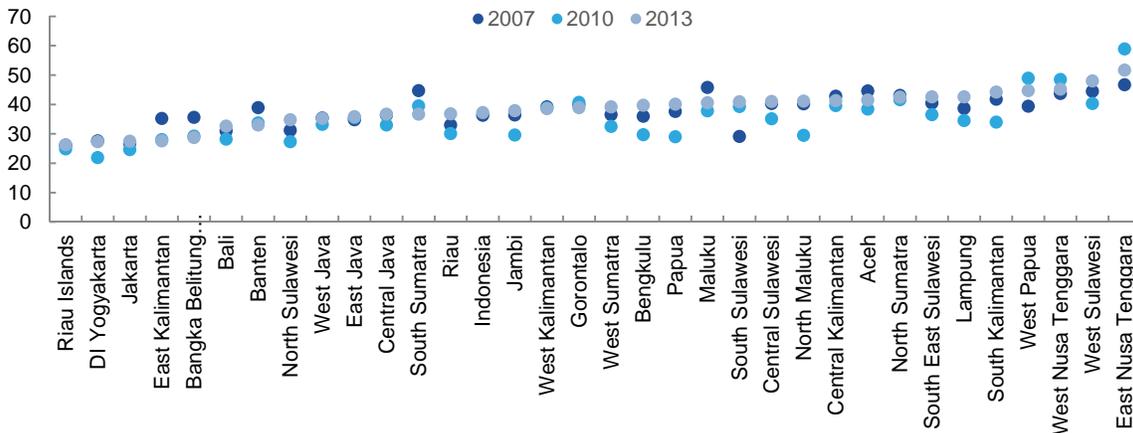
While there are multiple contributing factors (including inappropriate infant feeding practices, low access to clean water and sanitation, etc.)⁴⁰, Indonesia's agro-food system and its long-standing food policies are not playing their necessary role to address this national problem, which will have major short- and longer-term adverse impacts on productivity and human development.

Figure 27: Indonesia's prevalence of stunting is much higher than in countries with similar levels of Gross National Income (GNI per capita, USD (x axis); stunting prevalence, children under 5, percent (y axis))



Note: Gross National Income per capita figures are for the most recent available period 2012-2014. Stunting prevalence figures are for the most recent available period 2010-2014, except for Singapore (2000), Malaysia (2006), and Brunei (2009). The dotted line at 30 percent indicates the WHO cutoff for “high stunting” prevalence. Source: WDI, 2015

Figure 28: The prevalence of stunting changed little in recent years and actually increased in some areas (percent of under 5 population stunted)



Source: RISKESDAS 2007, 2010, 2013

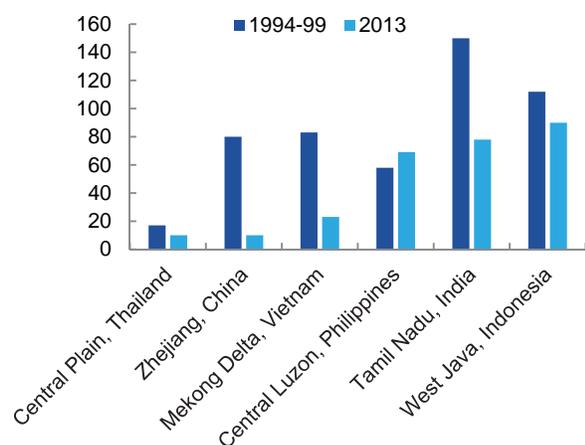
⁴⁰ In 2013, the share of the population lacking access to improved water and sanitation was 33 percent and 40 percent, respectively. Only 42 percent of infants aged less than 6 months were exclusively breast-fed, well below the national target of 85 percent. See Kementerian PPN/Bappenas, 2014, “Indonesian Health Sector Review: Nutrition”, Jakarta.

Many of Indonesia’s protected farmers have been unable to sustain a livelihood based on agriculture

Restrictions on rice, maize and sugar imports and various non-tariff measures applied to animal and horticultural products have somewhat protected Indonesian farmers from competition.⁴¹ However, there is no evidence that this protection has translated into higher prices for farmers given their limited market power vis-à-vis processors and distributors. In addition, for most farmers specialized in rice or other cereals production, small farm sizes and lack of access to reliable irrigation and advisory services are among the factors keeping them trapped in a situation of low labor productivity and farm income. Fertilizer subsidies have not reversed a national trend in declining rates of growth in rice yields. In fact, problems of unbalanced (or excessive) nutrient use have likely been exacerbated by fertilizer subsidies, contributing to soil degradation, water pollution and high green-house gas emissions.⁴²

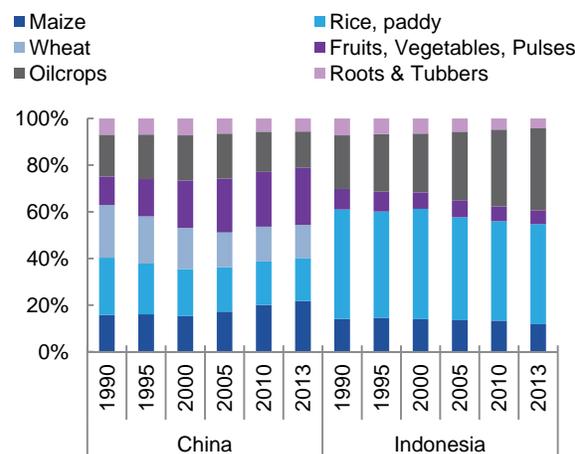
This has reinforced a negative cycle that hurts both farmers and consumers. High food prices have put upward pressures on hired labor and rented land costs for farmers, especially in Java. Comparatively high production costs⁴³ (paired with low milling efficiencies and high logistical costs) make Indonesian farmers uncompetitive, seemingly necessitating their protection which, in turn, harms consumers. An entirely different policy approach is needed to break this cycle both now and for the longer-term.

Figure 29: Surplus labor in some areas remains locked into rice production, yielding low labor productivity
(8 hour person-days per hectare per crop)



Source: Bordey et al (2014) Benchmarking the Cost and Profitability of Paddy Rice Production in Selected Asian Rice Bowls

Figure 30: Considerable food crop diversification has occurred in China, while for Indonesia rice remains dominant and the main change has been the conversion of forested land to oil palm
(food crop land coverage, percent)



Source: FAOSTAT

⁴¹ While for nearly all OECD countries the nominal protection coefficient (i.e. producer prices/border prices) has been declining in recent years, for Indonesia it has been increasing—from an average of 25 percent over the 2010-2012 period to 40 percent in 2015. OECD, 2016.

⁴² With proper soil nutrient practices, farmers have been found to obtain higher yields with lower use of fertilizer and realizing somewhat higher incomes. R. Buresh, Nutrient Best Management Practices in Rice, IFA Indonesia Seminar, Jakarta, April 23, 2014. Nitrogen which is not absorbed by the plant may run-off into water sources or be converted into nitrous oxide and emitted.

⁴³ Bordey et al, 2014, found that rice production costs per hectare in West Java were USD 1849 compared with USD 1207 in Thailand, USD 1059 in Vietnam and USD 868 in India. The production costs per kilogram of rice were more than one-third higher in Indonesia than in Thailand and India and more than double the cost in Vietnam.

Addressing the farm income problem will require structural changes (rather than relying on protection and subsidies)

Elsewhere in the region, a process of structural transformation is occurring within agriculture—featuring patterns of land consolidation, increased mechanization, major shifts in (and diversification of) agricultural land use, and large changes in the composition of agricultural GDP.⁴⁴ Many surplus workers are leaving agriculture, such that the productivity of those who remain is increasing. These structural changes have been occurring at a much slower pace in Indonesia (Figure 29 and Figure 30). This is likely due to insecure land tenure, policy-induced distortions in incentives, and a long pattern of underinvestment in critical public goods.

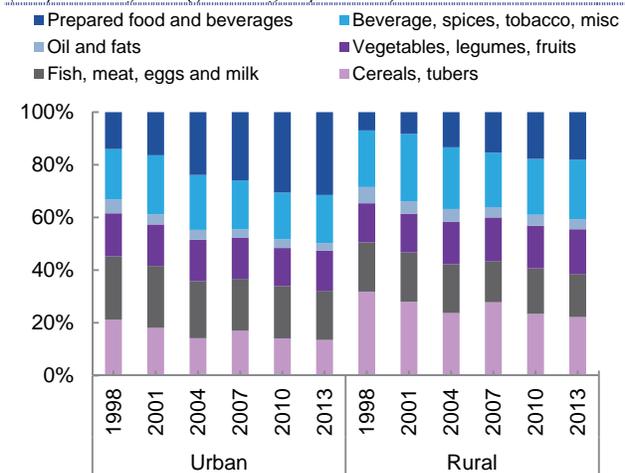
b. The implications of changing dietary and food expenditure patterns for Indonesia’s food policy

Broader structural shifts are changing the landscape in which Indonesia’s food policy is made...

Income growth, demographic changes and other lifestyle changes are contributing to structural shifts in the patterns of domestic food consumption and expenditure, and in the systems in which people obtain and purchase their food. In particular, dietary diversification is occurring rapidly in urban Indonesia; per capita rice consumption is falling while consumption of and spending on animal products, fruits,

vegetables, and a widening range of processed foods is rising (Figure 31).⁴⁵ Out-of-home eating is becoming more prominent, as are a range of modern food retailers. Changes in food consumption and expenditure have been relatively slower in rural areas due to access and affordability constraints, yet have nevertheless shown some dynamism. For example, the share of rural food expenditure for processed foods rose from 8 percent in the early 2000s to 19 percent a decade later. As observed in other countries, these trends are expected to continue in Indonesia over the coming decades, giving rise to a structure of food consumption and spending that will look very different from that of today—both quantitatively and qualitatively.⁴⁶

Figure 31: Indonesia’s food spending patterns are changing, especially in urban areas
(composition of average monthly expenditure)



Source: BPS

⁴⁴ D. Dawe, 2015, “Agricultural Transformation of Middle Income Asian Economies: Diversification, Farm Size, and Mechanization”, ESA Working Paper, No. 15-04, FAO, Bangkok. Also, World Bank, 2016, “Transforming Vietnamese Agriculture: Gaining More from Less”, Hong Duc Publishing.

⁴⁵ Nationally, the income elasticity of demand for rice was -0.05 percent in 2013 compared with 1.76 percent for fruit, 1.93 percent for eggs/dairy products, and 2.53 percent for meat. (Unpublished analysis made by N. Minot of IFPRI for this study, based upon Susenas data).

⁴⁶ For example, it is projected that the share of rice in national food expenditures will fall from 17.7 percent in 2013 to 8.2 percent by 2035. And, that the share of food spending occurring out of the home will rise from 26 percent today to more than 40 percent by 2035, see N. Minot, 2016, forthcoming, IFPRI.

...raising concerns about the contribution and burden of the food system on public health...

Indonesia is beginning to experience a ‘double burden’ of malnutrition. While the incidence of undernutrition remains high, overweight and obesity rates among adults are steadily growing. Among male children, the rate of obesity is now equal to the rate of undernourishment (at 12 percent). Within East and Southeast Asia, Indonesia has experienced the fastest rate of growth in the incidence (and deaths attributed to) diabetes and other diet-related non-communicable diseases.⁴⁷ Enormous public health and human development costs may lay ahead. Animal disease risks and food safety concerns are also growing in Indonesia. For several other countries in the region—including China and Vietnam—food safety and animal disease risks have emerged as core food security concerns, and Indonesia may face this prospect in the absence of concerted public and private action.

...as well as flagging the need to reduce the environmental footprint of the food system

The environmental footprint of Indonesia’s agro-food system has been very significant, adversely affecting productivity (for example, through the depletion of fisheries resources), human health (for example, through fires created for land clearing), the availability and quality of water for non-agricultural use, and the agricultural sector’s international and domestic reputation. Another emerging issue is food waste and its adverse socio-economic, environmental and livelihood impacts. There is evidence of growing levels of food waste in Indonesia⁴⁸ and this will become ever more challenging with further urbanization and the shifts toward processed foods and out-of-home eating. Measures will be needed to improve the incentives and capabilities to apply more environmentally sustainable practices in agriculture and other food value chain functions.

Changing the food demand has implication for food trade

Official statistics indicate that a very high proportion of national requirements for rice and maize (for feed) are being met from domestic production, except in exceptional years when adverse weather conditions occur (i.e. the 2015-16 ENSO event). Yet, with dietary changes, Indonesia is now experiencing an acceleration of imports for those grain and oilseed commodities for which it is not an efficient producer (i.e. wheat and soybeans). Imports of some higher value foods and multiple (semi-) processed foods have recently been 4 to 6 times higher, in value terms, than combined rice and maize imports (Figure 32). Some of these imports represent complementary supply (i.e. of temperate fruits or certain fish species which cannot be grown in Indonesia); other imports are intermediate products or ingredients which are blended with domestic raw materials to generate final consumer products. Domestic consumers gain access to a wider variety of foods while Indonesia’s food companies can grow and, in some cases, target the rapidly expanding middle class in ASEAN and other Asian countries.

While not currently predicted for the upcoming decade⁴⁹, a future return to higher international commodity prices cannot be completely ruled out. Still, Indonesia’s per capita food imports, in value terms, are low by international standards (Figure 33). While significant competitiveness challenges remain—especially in the primary

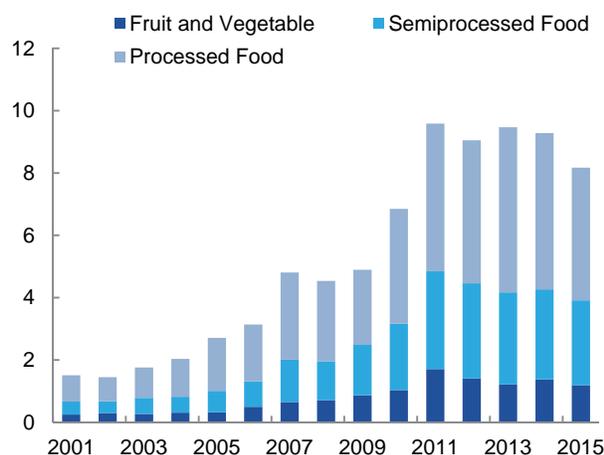
⁴⁷ As international evidence points to a link between childhood stunting and the development of obesity and chronic diseases later in life, Indonesia faces the risk of enormous future public health costs and losses in productivity. See for example: C. Victora, 2008, “Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital”, *The Lancet*, Volume 37, No. 9609, p. 340-357.

⁴⁸ FAO food balance sheets indicate that Indonesia experiences more than 100kg of food waste per capita per year, a figure two and a half times that of South Korea, a country which has instituted effective programs to prevent or limit food waste. Food waste is prominent in Indonesia’s municipal solid waste, two-thirds of which ends up in landfills. <http://faostat.fao.org/site/354/default.aspx>

⁴⁹ See World Bank, 2016, “Commodities Market Outlook”, July, Washington, D.C.

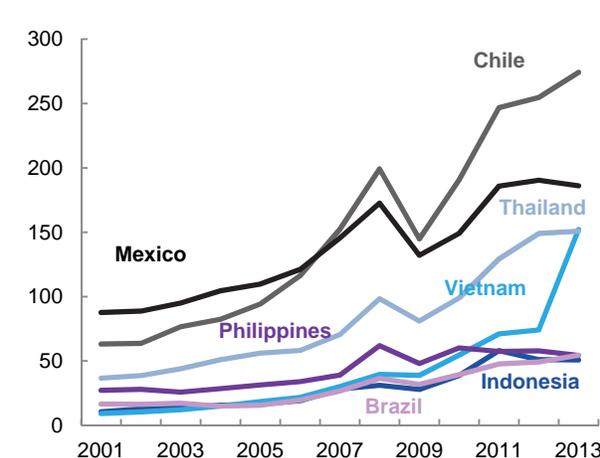
production and logistical dimensions of many of Indonesia’s fruit, vegetable, and animal products value chains—food imports need not necessarily be considered as an indication of agricultural failures. Other middle income countries with very successful agricultural sectors are opting for both higher food exports and food/feed imports, ostensibly reflecting a pattern of efficiency in utilizing available natural and human resources.⁵⁰

Figure 32: Within Indonesia’s total food imports, imports of higher-value and processed foods are growing fast
(USD billion)



Source: ITC/Comtrade and WDI

Figure 33: Indonesia’s annual per capita food imports are low compared with other middle income countries
(USD)



Source: ITC/Comtrade and WDI

c. How should Indonesia strategically re-orient its food security policy?

It would be beneficial for Indonesia to refine its food policy aspirations—from rice to RICE

Indonesia has ambitious goals for green economic growth, rising prosperity, and international competitiveness. Such a vibrant, forward-looking society requires equally ambitious goals related to its agro-food sector. Meeting targeted commodity production targets is not sufficient. The goal should be to develop a modern food system which is more (i) Reliable, (ii) Inclusive, (iii) Competitive; and (iv) Eco-friendly. That is, rebalance attention beyond a dominant focus on rice to pursue a broader concept of RICE. These RICE attributes embody the aims already set out in the Food Law, and place greater emphasis on resilience, flexibility, health-promotion, consumer responsiveness, efficiency, and environmental sustainability. Specific indicators can be defined to fit Indonesia’s distinctive characteristics and values, such that performance can be accurately monitored and measured.

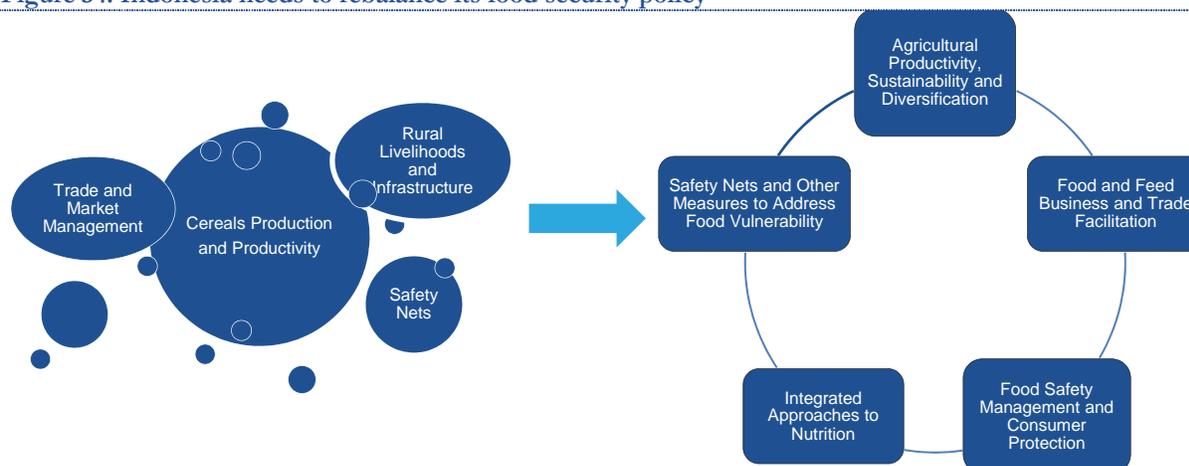
Pursuing this agenda will require a more balanced and coordinated effort across many sectors

Food policy is a much broader sphere than simply agricultural policy. A significant proportion of agricultural policy is food-related, yet food policy also includes various dimensions related to health/nutrition, transport/logistics, trade, social protection, and environmental protection. An urbanizing middle income Indonesia needs a balanced food policy in which there is consistency and synergy among the multiple sectoral policies and programs which impact the country’s food system and

⁵⁰ For example, Vietnam continues to expand its exports of a wide range of food and other agricultural commodities, yet over the past 5 to 10 years, its imports of feedgrains and other feed ingredients have surged and now exceed the annual value of its high volume rice export trade. These imports of feedgrains have enabled a large and competitive increase in domestic pork and poultry product production, servicing expanding demand, including from among the poor and near-poor.

its different stakeholders (Figure 34). There is a need for greater balance between consumer preferences and food supply dimensions, as well as between primary production and food system challenges beyond the farm-gate. From a dominant focus on cereals production and assuring a diet with adequate calories, future policy should give more balanced attention across food nutrients—carbohydrates, micro-nutrients, and protein—and between the quality of food (and diets) and the quantities available.

Figure 34: Indonesia needs to rebalance its food security policy



Source: World Bank

Considerable efforts are needed to forge a more reliable (R) and resilient food system...

A reliable food system is one which can ensure ample availability of staple and other foods which are safe to eat; it is one which is flexible and able to mitigate production and market performance risks posed by weather, other natural factors affecting plant/animal health, and other ‘external’ shocks (including international market developments). Reliability also relates to having accurate information (about production, prices, food safety, etc.). The pertinent policy agenda is multi-faceted. For example, it includes measures to develop more drought and flood-tolerant crop varieties, improve access to irrigation services, strengthen pest and disease surveillance and control, raise the performance and credibility of food safety regulatory oversight, and facilitate farmer and company investments in crop and food storage. A reliable food system is one in which both internal and international trade is supported and facilitated. In that regard, improving port infrastructure, and implementing on-going reforms to enable more competitive markets for freight forwarding, storage, distribution, and auxiliary shipping services will be critical.

...and one which is more inclusive (I) and health promoting

An inclusive food system is one which can provide stable and remunerative livelihoods for many people (in its agricultural, manufacturing and services dimensions) and is able to fully meet the food and nutritional security needs of the entire population, especially its lower income segments. This entails a multi-faceted agenda. Protecting farmers should give way to measures which empower farmers (such as collective action in water management and in commercial functions) and facilitate important structural changes (such as land consolidation and agricultural diversification) which will help to increase farm productivity and incomes. A more inclusive food system may require some intensified efforts to develop and implement differentiated food and nutritional security approaches in different regions—taking into account natural resources, demographics, institutional capacities, connectivity, and food preferences. Safety net programs designed to

improve economic access to food, such as RASTRA (the rice for prosperity program), could be accompanied by complementary measures (such as nutrition awareness programs and local food gardens) to promote dietary diversity.

A range of policies and programs are needed to strengthen the competitiveness (C) of Indonesian food and agriculture...

A more competitive food system will be one which attains higher and sustained levels of productivity in its use of labor, capital, and natural resources. It will be able to realize better synergies and economies of scale/scope, and, as a result, can better meet domestic and international consumer needs and preferences for food variety, quality, affordability, safety, and ethics. Unit costs will need to be reduced at the farm and multiple value chain stages. Measures will be needed to revitalize public agricultural research and extension while encouraging private R&D and advisory and other technical services. Improvements will be needed in the enabling environment for private investment in logistical services, food manufacturing, and distribution, and in the regulatory framework for consumer protection. Programs for agricultural (and agribusiness) education may need to be strengthened to foster the next generation of entrepreneurial farmers and agro-enterprise operators.

...and to make the food system more eco-friendly (E)

There is a strong need for efforts to prevent, reduce, and rehabilitate the adverse environmental impacts associated with Indonesia's food supply and distribution and contribute positive ecosystem services where possible. The Government has at its disposal a wide range of advocacy, regulatory, enabling and other tools to influence the behavior of farmers, fishers, and firms toward practices which have a lower environmental footprint. For example, technical and financial support can be provided to promote the adoption of sustainable practices at the local level, while applying approaches of integrated management of multi-functional landscapes on a larger scale. A mix of regulations, spatial planning measures and economic incentives will be needed to address agricultural pollution, better manage fisheries resources, and protect wildlife and sensitive natural ecosystems from agricultural encroachment.⁵¹

The move toward a (re-) balanced policy for sustainable food and nutritional security will require shifts in public spending and the modalities of public interventions

Pursuing this type of RICE agenda would involve a shift from price to non-price interventions by the Government, from primarily supplying private goods to strengthening the prioritized provision of public goods. In a modernizing and market-driven food system, the Government would 'lead less but facilitate more'. The Government does not need to be a major food (and input) market operator nor provide a full range of services. Yet it needs to be effective in facilitating investments, initiatives and behavioral changes among farmers, agro-enterprises, service providers and consumers. Pursuing a rebalanced food and nutrition security policy will also require a reallocation of government spending. Most importantly, replacing the large, poorly targeted fertilizer subsidy program with a comprehensive soil fertility and water management program could have a greater impact on farm productivity at much lower cost. With the down-scaling and narrower targeting of fertilizer subsidies, the fiscal dividend could be redeployed to allow for a large phased increase in investments in agricultural and rural infrastructure, and the range of public goods highlighted above. Such a reoriented pattern of public spending will yield the types of productivity gains, farm income gains, and improvements in agricultural and value chain resilience, competitiveness, and sustainability that will be essential for Indonesia's longer term food and nutritional security.

⁵¹ See B. Leimona et al., 2015, "Indonesia's Green Agriculture Strategies and Policies: Closing the Gap Between Aspirations and Applications", ICRAF, Jakarta.

C. Indonesia 2018 and beyond: A selective look



1. Ensuring universal access to safe water and sanitation services to reduce in stunting, poverty and inequality

After achieving the MDG target for water supply, Indonesia now targets universal access to water and sanitation by 2019

Indonesia has made considerable progress in the water, sanitation and hygiene (WASH) sector over the past decade. The country reached its Millennium Development Goal (MDG) for water supply, with 87 percent of its citizens benefiting from access to improved⁵² water supply in 2015. However, the MDG for sanitation was missed by a narrow margin. Sanitation access increased significantly from 35 percent in 1990 to 61 percent in 2015 (the target was 62.4 percent). Progress in rural areas has been the main contributor to this achievement, with access doubling from 24 percent to 47 percent for sanitation, and increasing from 61 percent to 79 percent for water supply—a growth rate three times higher than that in urban areas⁵³. Following these achievements, the Government is now targeting universal access to water supply and sanitation services by 2019, in line with the new Sustainable Development Goals (SDGs).

Income inequality coincides with inequality in access to WASH services

Achievements in the WASH sector coincide with a period of overall economic growth and a reduction in the poverty rate from 23.4 percent in 1999 to 10.9 percent in 2016. At the same time, however, income inequality has risen. The Gini Index increased by 10 percent points, from 30.0 to 39.7, between 2000 and 2016⁵⁴. Inequality is also evident in the WASH sector. There is a large gap in access to

⁵² An improved drinking-water source is defined as one that, by nature of its construction or through active intervention, is protected from outside contamination, in particular from contamination with fecal matter. An improved sanitation facility is defined as one that hygienically separates human excreta from human contact.

⁵³ Joint Monitoring Programme WHO-Unicef, 2015.

⁵⁴ See World Bank report on 'Indonesia's Rising Divide' for more on this topic <http://www.worldbank.org/en/news/feature/2015/12/08/indonesia-rising-divide>

improved, rural, WASH services between those in the poorest and richest quintile of the income distribution⁵⁵. In rural area, 57 percent of the poorest quintile have access to water services compared to 93 percent in the highest quintile. In sanitation, only 36 percent of the poorest quintile have access to improved sanitation compared to 87 percent in the highest quintile. About one-third of this inequality can be traced back to circumstances into which children are born or that develop soon thereafter. For example, Susenas data show that a child born to non-poor parents with at least a high school education in Jakarta has a 94 percent likelihood of having access to improved sanitation compared with a 2 percent likelihood for a child born to poor and less educated parents in Papua or the Moluccas⁵⁶.

There are still 24 million rural people without access to improved water, 62 million without access to improved sanitation, and 9 million stunted children

There is a recognized link between poor sanitation, water-borne diseases, malnutrition and stunting (chronic malnutrition). Children exposed to a dirty environment and poor nutrition at an early age experience diminished growth and cognitive potential, leading to lower human capital attainment.⁵⁷ The scale of this problem in Indonesia is large; there are around 9 million stunted children,⁵⁸ and it is estimated that stunting and malnutrition lead to a 2-3 percent loss in GDP⁵⁹.

A sustained rural WASH program, integrated with other sectors, is critical to achieving universal access to water and sanitation, and contributing to reducing poverty and stunting. This section provides a brief overview of: (a) the path to achieving universal access to WASH, (b) the importance of WASH in reducing stunting, (c) examples of collaboration between the WASH sector and other related sectors, and (d) options for furthering a sustained and integrated rural WASH program.

a. A strengthened institutional framework has increased access to WASH in rural areas

A community-led approach to WASH has been mainstreamed through STBM and PAMSIMAS...

Indonesia has significantly transformed its approach to rural sanitation. It has moved away from a top-down subsidy-based approach focusing on building latrines, and towards community empowerment to increase demand for safe sanitation and hygiene, and private sector provision. Based on a number of successful pilots, this approach was scaled up to multiple provinces before being adopted as the national rural sanitation strategy in 2008, namely the Community-based Total Sanitation (Sanitasi Total Berbasis Masyarakat, or STBM) approach. STBM has three components: 1) creating demand for safe sanitation and hygiene through community empowerment and behavior change; 2) increasing the supply of affordable and aspirational sanitation facilities by the private sector; and 3) enhancing the enabling policy environment. PAMSIMAS, the national program for community-based rural water supply and sanitation, launched in 2008, integrated the STBM approach, bringing water and sanitation policies closer together.

⁵⁵ WSP, 2015, "Water Supply and Sanitation in Indonesia: Turning Finance into Service for the Future".

⁵⁶ World Bank, 2015, "Indonesia Systematic Country Diagnostic: Connecting the Bottom 40 percent to the Prosperity Generation", World Bank East Asia and Pacific, September

⁵⁷ Victora, Adair, Fall, Hallal, Martorell, Richter, and Sachdev et al, 2008, "Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital" *Lancet* 371(9609), 340

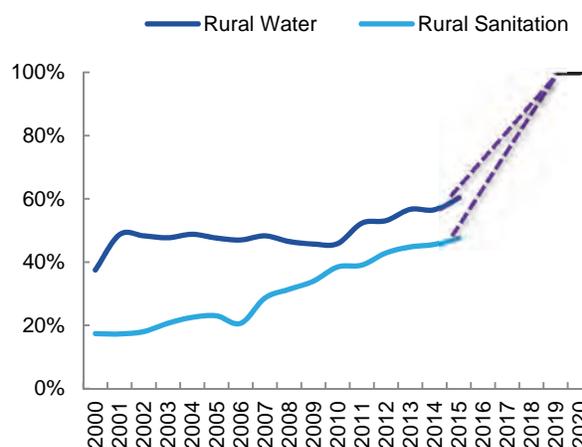
⁵⁸ Ministry of Health, 2013, "Basic Health Research (*Riset Kesehatan Dasar*, Riskesdas)"

⁵⁹ World Bank, 2014, "Better Growth Through Improved Sanitation and Hygiene Practices"

...this changed approach, along with a strengthened institutional framework, has improved rural WASH access

This changed approach, along with an improved institutional framework that divided roles and responsibilities, and shared contributions among stakeholders at all levels, laid the foundation for improvements in rural WASH access. Access to rural sanitation increased annually by an average of 2.2 percent between 2009 and 2015 (Figure 35). This followed average annual growth of only 1.6 percent between 2000 and 2008⁶⁰. Average annual growth in access to rural water supply also increased over the same periods, from 1.4 percent to just over 2 percent.⁶¹

Figure 35: Growth in access to rural WASH increased following the adoption of STBM and PAMSIMAS (the purple lines represent the increase required to achieve Indonesia's national target of universal WASH access by 2019)



Source: SUSENAS, BPS, 2016.

Financing for rural water supply mostly comes from government-led programs and is still very limited

The World Bank's 2015 Service Delivery Assessment (SDA) on Water and Sanitation in Indonesia noted that despite clear mandates and regulations, it remains difficult to get a comprehensive picture of the total budget and expenditure in the sector⁶². Funding for rural water supply comes from multiple sources (domestic revenue, donor grants and concessional loans), and is almost exclusively channelled through PAMSIMAS, with expenditure at the national level (APBN), provincial and district level (APBD), and villages level (village fund). PAMSIMAS's budget is USD 1,600 million over a 14-year period ending in 2020 (an average of USD 115 million per year). However, this falls far short of the USD 772 million in annual capital expenditure the SDA study estimates would be required to achieve universal access to rural water supply. As such, ongoing research is investigating the potential of other sources of funds (such as user fees, the Government, or development partners), and other sources of finance (such as microfinance institutions or local banks).

... while most financing for rural sanitation comes from households

In contrast, rural sanitation is increasingly financed through household investment, as the Government does not provide subsidies. The SDA study estimates capital expenditure requirements of USD 414 million annually to achieve universal access to rural sanitation. Most of this would have to come from households for improved latrines, while the Government would deliver demand creation activities (such as behavior change campaigns) and policy support (such as sector regulation to mainstream proven approaches).

⁶⁰ Statistics Indonesia, 2016, "Survei Sosial Ekonomi Nasional".

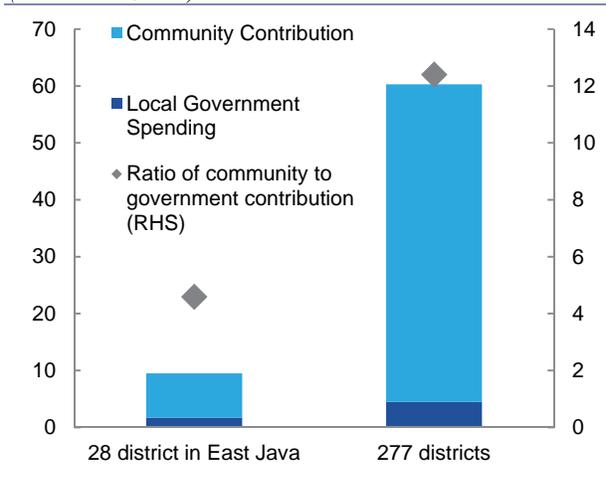
⁶¹ BPS revised the formula for access to water in 2011. The new formula includes access for bathing and washing in addition to drinking water. The access rose from 45.9 percent in 2010 to 52.3 percent in 2011, BPS, 2011.

⁶² See World Bank, 2015, "The 2015 Service Delivery Assessment (SDA) on Water and Sanitation in Indonesia", available at: <http://documents.worldbank.org/curated/en/326971467995102174/Water-supply-and-sanitation-in-Indonesia-turning-finance-into-services-for-the-future>.

Targeted public investment in sanitation has triggered much larger investments by communities

Following the STBM approach, targeted public investments have been able to trigger much larger investment by communities. For example, between 2009 and 2011, the World Bank’s Total Sanitation and Sanitation Marketing Project’s investment of USD 3 million triggered local government investment of USD 1.7 million and household contributions of USD 7.8 million. Further, data from the national STBM web-based monitoring system show that between January 2014 and August 2016, local governments in 277 cities and districts spent USD 4.5 million under the STBM program (mostly for demand creation, capacity building, monitoring, and policy support), triggering investment of USD 55.8 million from households (Figure 36).

Figure 36: Targeted public investments can trigger much larger investment by communities (USD million, ratio)



Source: World Bank; STBM

b. WASH is a key determinant of stunting

1 child out of every 3 in Indonesia is stunted

The prevalence of stunting in Indonesia rose to 37.2 percent in 2013, up from 35.6 percent in 2010 and 36.8 percent in 2007.⁶³ With almost 9 million stunted children—or 1 out of 3—Indonesia’s stunting prevalence is higher than its regional peers, such as Myanmar (35 percent), Vietnam (23 percent) and Thailand (16 percent) (Figure 27). Indonesia is among the five countries with the highest number of stunted children⁶⁴.

Stunting reflects chronic undernutrition during the first 1,000 days of life

According to the World Health Organization⁶⁵, stunting reflects chronic undernutrition during the most critical periods of growth and development in the first 1,000 days of life. Stunting is associated with an under-developed brain leading to long-lasting harmful consequences including diminished mental ability and learning capacity⁶⁶. Stunting is influenced by a number of interlinked factors,

⁶³ Indonesian Ministry of Health Basic Health Survey. While stunting has remained largely flat in recent years, access to WASH has improved overtime. However, this does not negate a relationship between WASH and stunting. The apparent contradiction in the time series data may reflect the deterioration of other important determinants of stunting in the last decade (such as nutrition factors). Further, cross sectional data (stunting rates and access to improved sanitation by province) do show the expected negative correlation (Figure 37).

⁶⁴ Other countries include: India, Nigeria, Pakistan, and China. See The Global Nutrition Report, 2016.

⁶⁵ See WHO conceptual Framework for Childhood Stunting, 2013 for full details

http://www.who.int/nutrition/events/2013_ChildhoodStunting_colloquium_14Oct_ConceptualFramework_colour.pdf

⁶⁶ Victora, et.al, 2008, “Maternal and Child Undernutrition: Consequences for Adult Health and Human Capital”, Lancet 371(9609), 340.

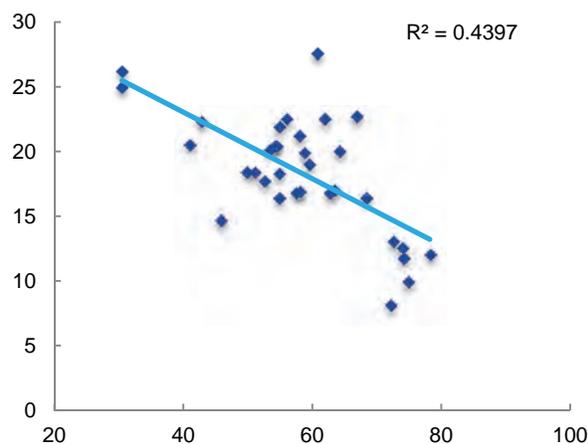
including access to nutritious food, caring practices, access to health services, and access to WASH⁶⁷.

Improving sanitation reduces child stunting

Inadequate sanitation can impact child nutritional status through multiple pathways, most importantly through reduction in diarrheal disease and infection from harmful parasites due to fecal contamination in the environment. Improved WASH can also help reduce anemia and play an important role in preventing environmental enteropathy⁶⁸. Although WASH is not the only factor affecting stunting,

Indonesian data have shown a strong relationship between improved sanitation and reduced stunting (Figure 37). Provincial data show that access to basic sanitation and safe drinking water are associated with taller children⁶⁹. This gain in height is larger when basic sanitation and safely managed water are accompanied by access to adequate food and health services. An impact evaluation study in East Java showed that children exposed to a Rural Sanitation Program had lower average rates of parasitic infection, as well as improvements in height and weight, compared to children that did not benefit from the program⁷⁰. Other studies, such as in Cambodia⁷¹, Mali⁷², and India,⁷³ and global econometric studies⁷⁴ find that children in households that do not practice open defecation (OD) are less stunted. In line with this research, international programs intended to address stunting have started to incorporate a focus on WASH. The Scaling Up Nutrition (SUN) Movement, which the Government joined in September 2012, mainstreams WASH as a

Figure 37: There is a strong correlation between improved sanitation and reduced stunting
(stunting, percent of children under 5 (LHS); improved sanitation facilities, percent of population with access, (x axis))



Note: Data by province
Source: Riskesdas, 2013

⁶⁷ Adopted from UNICEF, 1990, “Strategy for Improved Nutrition of Children and Women in Developing Countries”, available at: http://siteresources.worldbank.org/INTLACREGTOPNUT/Resources/UNICEF_Framework.pdf

⁶⁸ A condition whereby the intestine has been damaged due to frequent infection which causes a reduction in nutrition absorption capacity.

⁶⁹ World Bank and MoH, 2015, “Operationalizing a Multi-Sectoral Approach for the Reduction of Malnutrition in Indonesia: An Application using the 2007 and 2013 Riskesdas”, July 2015.

⁷⁰ WSP, 2013, “Impact Evaluation of a Large-Scale Rural Sanitation Project in Indonesia”.

⁷¹ WSP, 2013, “Investing in the Next Generation: Growing Tall and Smart with Toilets, Stopping Open Defecation Improves Children’ Height in Cambodia”.

⁷² Pickering, et al, 2015, “Effect of a Community-Led Sanitation Intervention on Child Diarrhoea and Child Growth in Rural Mali: A Cluster-Randomised Controlled Trial”, *The Lancet Global Health* 3, no. 11: e701-e711.

⁷³ Hammer et al, 2016, “Village Sanitation and Child Health: Effects and External Validity in a Randomized Field Experiment in Rural India”, *Journal of Health Economics* 48: 135-148.

⁷⁴ Spears, 2013, “How Much International Variation in Child Height Can Sanitation Explain?” Policy Research Working Paper 6351, World Bank, Washington, DC.

nutrition-sensitive intervention.⁷⁵ Similarly, the National Nutrition Improvement Acceleration Program within the Framework of the First Thousand Days of Life prioritizes WASH as part of a multi-sectoral response to stunting⁷⁶.

The Government of Indonesia committed to reduce the rate of stunting from 37 percent in 2013 to 28 percent by 2019

The Government of Indonesia has committed to reduce the rate of stunting to 28 percent nationally by 2019. As such, government and donor funding is being directed towards stunting. For example, the Government signed a USD 130 million compact with the Millennium Challenge Corporation (MCC) in 2013 to fund the Community-Based Health and Nutrition Program to Reduce Stunting (PKGBM)⁷⁷. PKGBM is currently being implemented in 64 districts in 11 provinces and aims to tackle stunting by integrating a nutrition program with the STBM approach to rural sanitation.

c. An integrated approach to WASH is required to reduce stunting and poverty

Some collaboration among practitioners in different sectors is already taking place to address stunting and poverty

An integrated approach across water, agriculture, health and nutrition is required to address stunting and poverty. Collaboration between some of these sector is already taking place in selected areas within the STBM, PAMSIMAS and PKGBM programs. For example, PAMSIMAS (water program) and PKGBM (nutrition program) have integrated the STBM approach to rural sanitation to generate consumer demand for toilets and strengthen the supply of sanitation goods and services.

Harmonization of monitoring and reporting systems can help support integrated service delivery

Harmonization of monitoring and reporting systems is another way to ensure that WASH objectives are considered in nutrition projects (and vice versa). The PAMSIMAS MIS now draws on data collected through the STBM program to produce comprehensive reports on water and sanitation. Similarly, the PKGBM program initiated a joint data analysis forum to generate statistics around the determinants of undernutrition, including: sanitation, nutrition, maternal and child health, and infectious disease.

Demand for services that can address stunting can be triggered by BCC campaigns and then strengthened by training community personnel

Triggering activities have traditionally been used to stimulate an emotional response from the community to stop open defecation. More recently, they are also being used to increase community demand for improved water supply and good nutrition. For example, the Ministry of Health (with support from the Millennium Challenge Account Indonesia (MCA-I)) is delivering integrated behavior change communication (BCC) messages about stunting during STBM triggering events and in marketing materials.⁷⁸ By August 2016, the MCA-I had trained 2,400 sanitation and nutrition professionals and cadres to communicate these messages⁷⁹.

⁷⁵ For more information on SUN in Indonesia see <http://scalingupnutrition.org/sun-countries/indonesia>.

⁷⁶ Other interventions include: psychosocial stimulation for babies and children, family planning, household nutrition gardens, and cash transfers for nutrition. For more information on SUN in Indonesia see <http://scalingupnutrition.org/sun-countries/indonesia>

⁷⁷ For more information see: <https://www.mcc.gov/where-we-work/program/indonesia-compact>

⁷⁸ Other common BCC channels include local media and cultural events.

⁷⁹ See MCA-I training and monitoring system for more information: <http://monev-chnpmcai.org/index.php/traininglist>.

The supply side of rural WASH is continuously improving, which also contributes to local economic development

Establishing a base of entrepreneurs to serve the demand created for sanitation not only helps to scale up access to WASH, but also

Table 8: Training sanitation entrepreneurs helps increase latrine sales

	2012	2013	2014	2015
Active entrepreneurs (cumulative)	74	117	194	273
Latrine sales per year	14,486	8,394	17,635	16,045
Sales/entrepreneur/month	16	6	8	5

Note: Data was retrieved from www.stbm-indonesia.org and covers 5 provinces (West Java, Central Java, East Java, Bali and West Nusa Tenggara).
Source: STBM MIS system, October 2015

has an impact on overall economic development in communities. The supply side of rural WASH is continuously improving through the adoption of new technology and training of entrepreneurs. Since 2010, the Government has trained a total of 1,945 masons⁸⁰ to be potential sanitation entrepreneurs, of whom 273 have become active entrepreneurs (Table 8). These entrepreneurs have sold 63,760 healthy latrines worth IDR 90 billion⁸¹. Moreover, through sanitation entrepreneur associations, some entrepreneurs have received support from local banks or micro finance institutions to expand their businesses. Improved pit latrines are among the most economic solutions with a unit cost of around USD 30 per household per year. In rural areas, the economic benefits of pit latrines exceed costs by a factor of at least seven⁸². Overall, supply side WASH activities can not only deliver sanitation services and economic benefits to communities, but can also help set up profitable businesses.

Community organisations set up to deliver water services can serve as useful entry points to provide services in other sectors

Community-Based Operators (CBOs) are essential to ensuring sustainable WASH services over time, but once they are established and well-functioning, they can serve as useful entry points to provide other services. It is estimated that around 25,000 CBOs already exist in Indonesia. Around 12,000 of these associations were formed under the PAMSIMAS program and are called BPSPAMSs (Governing Body for Water Supply Systems and Sanitation). Efforts to strengthen the performance of BPSPAMS have since been conducted with the assistance of the Ministry of Home Affairs.

d. Continuing progress in rural WASH in order to reduce stunting and poverty

Reducing stunting will require further integration between rural WASH, nutrition, and poverty

Since 2008, increased investment and a strengthened institutional framework have improved access to WASH in rural areas. However, service delivery bottlenecks remain. Fundamental causes of poor local service delivery include: an inefficient allocation of spending at the sub-national government level; technical capacity and coordination constraints; and weak incentives and accountability structures for delivering results⁸³. Addressing these bottlenecks, and further integrating WASH programs with other sectors can help reduce stunting and poverty.

⁸⁰ Amongst local professions, the skills of a mason are most suited to building latrines.

⁸¹ WSP, 2015, “Scaling Up Rural Sanitation and Hygiene in Indonesia”, www.stbm-indonesia.org

⁸² For more detail, see WSP, 2011, “The Economic Returns of Sanitation Interventions in Indonesia.

⁸³ WSP, 2015, “Water Supply and Sanitation in Indonesia, Turning Finance into Service for the Future”, World Bank Group.

Integrated data on WASH, nutrition and poverty is an important first step

In a multi-sector environment, integrated, comprehensive, reliable and comparable data are key for effective analysis and policy making. Although BPS and MOH provide overall figures (Figure 38), more detailed integrated data (on WASH, nutrition and poverty) are not yet available.⁸⁴ Different data collection methods, availability of time series data, and definitional differences are some of the barriers to such integrated data. There is also a need to strengthen the capacity of technical units within the Government to use and share evidence and data for policy planning.

Synergies between sectors can be obtained in many ways

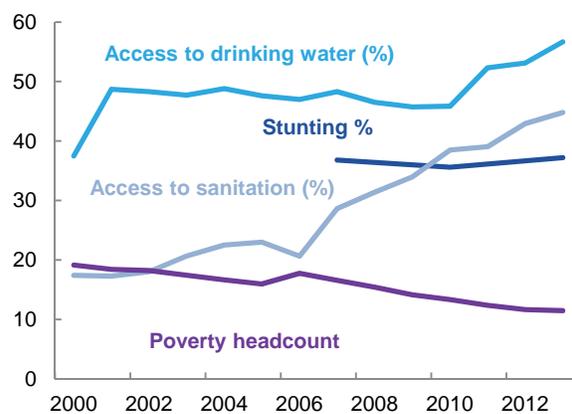
Synergies between sectors can be obtained in many ways, including: (i) using common measurement indicators, benchmarks, and tools; (ii) co-locating programs in geographies with high rates of stunting; (iii) using existing targeting strategies and the delivery platforms of social protection programs to deliver BCC messages about WASH and nutrition at a larger scale; (iv) and using reciprocal arrangements between nutrition and WASH delivery systems to deliver BCC messages. Early global evidence already suggests that including integrated BCC messages in WASH programs can enhance their impact on health and nutrition objectives. Looking ahead, more research is required to develop evidence-based messaging on the linkages between rural WASH, nutrition and poverty for use in integrated BCC campaigns. The synergies in shaping nutrition linked WASH behaviors can also be obtained by utilizing additional tools (such as ‘nudges’ for hand washing and hygiene) that influence choices and actions of the target groups. These can be rigorously tested and evaluated for impact and further scaled-up.

A number of policy reforms can help mobilise resources and improve the efficiency of spending

Achieving universal access to WASH will require greater resources and better use of existing resources. Fiscal transfers to local governments, investments by the financial sector and private sector can all contribute to achieving better outcomes. For example, a soft regulatory framework for public-private-community partnerships (PPCP) will allow engaging private and social enterprises for inclusive and sustainable delivery of WASH and nutrition services in communities. In parallel, local governments could be incentivised to improve performance by increasing their share of the Special Allocation Fund (DAK). This would further incentivize them to focus on targeted sectors and hold them accountable through a results-based approach. PAMSIMAS already delivers “results-based-financing” to local governments as a reward for delivering rural water services and securing co-funding

Figure 38: Poverty and stunting are declining, while WASH access is increasing

(access to rural WASH, poverty rate, and stunting prevalence in children under 5, percent)



Source: BPS and Riskeddas, MOH

⁸⁴ For example, an integrated map that overlays poverty, stunting and WASH access would be useful for planning integrated programs.

from communities. This is a promising way to mobilize provincial and district governments even for programs aimed at nutrition results.

Improving service delivery will also require capacity building and knowledge sharing...

Existing capacity building strategies require a comprehensive review for achieving universal WASH access, as well as pursuing WASH-nutrition links by leveraging non-traditional platforms such as: local governments, health service providers, nutrition counsellors, WASH enterprises, and nutrition enterprises. Capacity building and knowledge sharing platforms should be more innovative and cost effective at strengthening the institutional capacity of non-water institutions to ensure they can deliver WASH services in the last mile. For example, associations of BPS PAMS are a cost effective way for sharing technical knowledge. A similar approach could be adopted through associations of health service providers, WASH enterprises and nutrition enterprises.

...and greater community engagement

The Village Law provides a strong foundation for villages to play an increasing role in sustainable and accountable service delivery. Enhancing their capacity to deliver programs and aligning incentives to collaborate with other sectors will help local governments deliver integrated WASH and nutrition services. Community involvement to monitor implementation of key programs on the ground can also help improve local government performance. PAMSIMAS and STBM already promote such involvement and promote values such as transparency, accountability and integrity. For example, PAMSIMAS has established a complaint-handling mechanism that can be accessed by text message, phone, website, or email.

2. Double for Nothing? Teacher Certification and Beyond⁸⁵

Now that Indonesia has substantially improved enrollment rates, its key education challenge has become improving the quality of education

The economic literature provides mounting evidence that the quality of education, as measured by cognitive skills assessed in international learning assessments, contributes more to a country’s economic growth than mere years of education.⁸⁶ Indonesia has successfully expanded access to education in recent decades, with Net Enrollment Rates (NER) now exceeding 92 and 75 percent at primary and secondary levels respectively. However, Indonesia’s poor performance in international assessments of student learning indicates potential problems with the quality of education in Indonesia. Almost 40 percent of Indonesia’s 15 year-old students score in the lowest or second-to-lowest competency levels (of 6 levels) in the OECD’s Programme for International Student Assessment (PISA) for math and science.

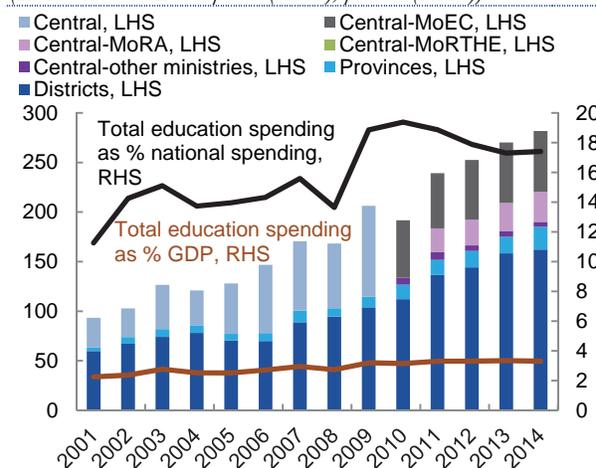
The constitutional mandate to allocate 20 percent of the annual budget to education speaks volumes for the Government’s commitment to education

The Government is committed to expanding quality education, as evidenced by its constitutional mandate to allocate 20 percent of its annual budget to education (Figure 39). The Government has also actively tried to address access and quality of education through various policies and programs over the last four decades. Starting with the rapid expansion of schooling, and the building of tens of thousands of new primary schools, Indonesia managed to more than double the number of new entrants into primary school

between 1973 and 1979⁸⁷. However, while the school construction program had clear benefits, its rapid implementation also had downsides: schools were built so fast that there were not enough trained teachers to fill them and new teachers were hastily trained. This process is said to have diluted the quality of the teaching force in Indonesia. This dilution of quality was subsequently the reason for some of

Figure 39: Education sector spending has tripled since 2001 in real terms

(IDR trillion at 2013 prices (LHS), percent (RHS))



Note: Central and sub-national spending figures refer to realized spending, except in 2014 where sub-national spending figures are estimated using sub-national budgets. However, total education spending may be underestimated as these figures may not fully capture BOS spending realization in sub-national governments Source: World Bank COFIS database using MoF data

⁸⁵ The majority of this section summarizes two separate papers: Joppe de Ree, Karthik Muralidharan, Menno Pradhan, Halsey Rogers, 2015, “Double for Nothing? Experimental Evidence on the Impact of an Unconditional Teacher Salary Increase on Student Performance in Indonesia”, NBER Working Paper No. 21806; and World Bank, 2015, “Indonesia: Teacher certification and beyond. An empirical evaluation of the teacher certification program and education quality improvements in Indonesia”.

⁸⁶ Woessmann, 2003, “Specifying human capital”, Journal of Economic Surveys 17(3), 239–270; Hanushek and Woessmann, 2008, “The role of cognitive skills in economic development”, Journal of Economic Literature 46(3), 607–668; Hanushek and Woessmann, 2009, “Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation”, NBER Working Paper No. 14633, Cambridge, MA, National Bureau of Economic Research.

⁸⁷ World Bank, 1989, “Indonesia: Basic education study”.

Indonesia's more recent education reform programs, such as the teacher certification program.

a. The Teacher Certification Program

Indonesia's poor PISA results in 2000 prompted the institutionalization of a generous professional allowance upon completion of a teacher certification program

In 2000 Indonesia decided to participate in an Organization of Economic Cooperation and Development (OECD) initiative called PISA, the Programme for International Student Assessment, which measures academic achievement in math and science in representative samples of 15-year-olds in a number of countries around the world. Indonesia's poor performance in this assessment marked the starting point for massive government investment in Indonesia's education system in the post-Suharto period. Indonesia's new leaders understood that something dramatic was needed to upgrade (or restore) the profile of the teaching profession. Indonesia's answer was the formulation and implementation of Law No. 14/2005 on Teachers and Lecturers (known as the Teacher Law). The flagship program under the new law was a teacher certification program that aimed to reestablish some of the esteem that the teaching profession had lost during the rapid expansion of education in the 1970s and 1980s. The program promised teachers a generous professional allowance, equal to their base salary, upon successful completion of the program. Certification, therefore, essentially doubled teachers' take-home pay.⁸⁸ The initial design of the program was such that to qualify for certification, teachers first had to obtain a university bachelor's degree and second, as additional proof of competency, had to demonstrate their skills through a written competency test, classroom observation, and a portfolio of past training and experience. The idea was that teachers without the right teaching skills would have a clear financial incentive to upgrade their skills to the standard required.

However, diluted certification conditions undermined the potential benefits of the program

In the early 2000s, political momentum built around the certification program. However, the regulations proposed in the initial design were significantly watered down when the proposed bill was presented in parliament. Under pressure from teacher unions, the requirement to *demonstrate* competency, through tests and classroom observation for instance, was dropped and only a portfolio assessment of past training and experience was retained.⁸⁹ Many observers worried that only acquiring a bachelor's degree from one of the country's teacher training institutions would not be enough to ensure a minimum level of teacher quality.

This concern was partly based on a large body of empirical research that raised skepticism about the benefits of formal academic qualifications for teachers. However, such research typically concentrates on more advanced economies where teachers with a bachelor's degree are compared with those who have a master's degree⁹⁰. The situation in Indonesia was strikingly different, as a quarter of all 2.7 million teachers in 2005 (and a third of all primary teachers) had no more than a high-school diploma. In this context, it was not unreasonable to expect that if this group obtained a university bachelor's degree, the quality of the learning environment would improve.

⁸⁸ Some teachers also receive other allowances in addition to their base pay. In that case, the certification allowance does not double their pay, although it significantly increases it.

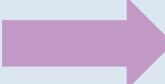
⁸⁹ See: Woessman, 2003; Hanushek and Woessman, 2008, 2009. A more in-depth discussion on the political economy of this process is provided by Chang, Shaeffer, Al-Samarrai, Ragatz, De Ree, and Stevenson, 2013.

⁹⁰ Hanushek and Rivkin, 2006, "Teacher Quality", in Hanushek and Welsch, Handbook of the economics of education, Vol. 2.

Nevertheless, the quality of education was expected to improve through three mechanisms

The certification program, and the associated doubling of take-home pay, was expected to improve the quality of education through three channels: improved motivation to perform (behavioral mechanism), improved teacher qualifications (academic upgrading mechanism), and increased desirability of teaching as a profession (attraction mechanism) (Figure 40).⁹¹ In-service teachers who qualified for certification in 2005/06, based on already having a bachelor’s degree, would only be affected by the behavioral mechanism. Those already in the system (in-service teachers and students enrolled in a teacher training college) would be affected by the academic upgrading mechanism and the behavioral mechanism. Finally, potential teacher candidates would be affected by the first two mechanisms and the attraction mechanism.

Figure 40: Teacher performance was expected to improve through three channels

	The attraction mechanism. Increasing teacher salaries means that the profession becomes more attractive in relation to other professions. This might attract a higher caliber high-school graduate to the teaching profession.	The academic upgrading mechanism. Those without a bachelor’s degree need a one to become eligible for certification. In the process of obtaining a degree, teachers might improve their knowledge and skills, making them better teachers.	The behavioral mechanism. Higher levels of pay might mean relying less on second jobs and help motivate teachers to prepare better for class or become timelier.
GROUP 1. In-service teachers who qualified for certification in 2005/06.			
GROUP 2. In-service teachers who did not qualify for certification in 2005/06 + students enrolled in teacher training colleges in 2005/06.			
GROUP 3. Pre-service teacher candidates in 2005/06 prior to enrolling in a teacher training college.			

Source: World Bank, 2015

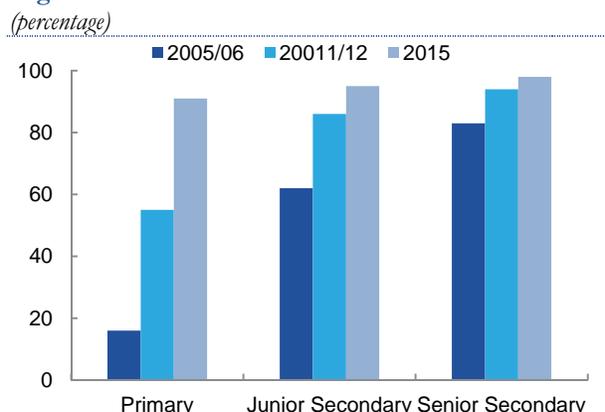
⁹¹ While the base salary of a junior teacher with a university bachelor’s degree roughly translates to the median wage of all workers with a bachelor’s degree in Indonesia, the base salary *and* the professional allowance combined translates into roughly the 90th percentile of the same income distribution.

b. An evaluation of the teacher certification program

The Government collaborated with the World Bank to rigorously evaluate the teacher certification program, and learn from the results

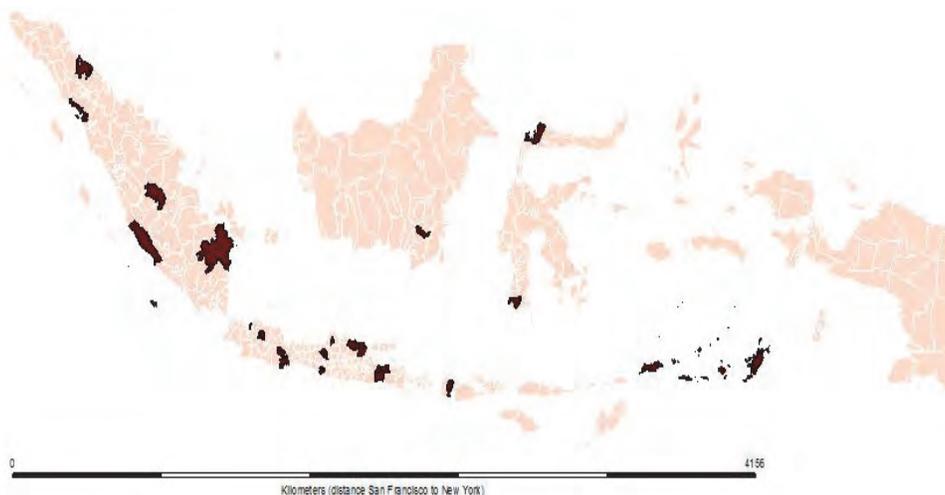
A rigorous randomized evaluation of the roll-out of the teacher certification program was conducted by the Government and the World Bank, and financially supported by the Dutch Government, through the Dutch Education Support Program (DESP). The evaluation provides some sobering results. Despite a large increase in the proportion of teachers with a bachelor’s degree (Figure 41), and the resultant heavy fiscal costs (see part d below), no discernable improvement in student learning outcomes was observed over the evaluation period (2009-2012). These results are based on a unique matched student-to-teacher database, collected specifically for the evaluation of the teacher certification program, where primary and junior secondary students were tracked for 2.5 years as they progressed through school. Their performance across time was then linked to survey information and subject-matter test scores of their teachers. The data are representative of 40 percent of the public primary and public junior secondary schools in Indonesia and have full geographic coverage—from districts in Sumatra in the west to the southern Maluku islands in the east (Figure 42).⁹³

Figure 41: The proportion of teachers with bachelor’s degrees increased



Note: The evaluation ended in 2012, before the proportion of teachers was as high as shown in 2015
 Source: World Bank calculations based on the NUPTK 2005/06 and NUPTK 2011/12 data sets⁹²

Figure 42: A representative sample of 20 districts was selected to take part in the evaluation
(sample districts are highlighted)



Source: World Bank 2015

⁹² <http://jendela.data.kemdikbud.go.id/jendela/index.php/chome/dashboard/>

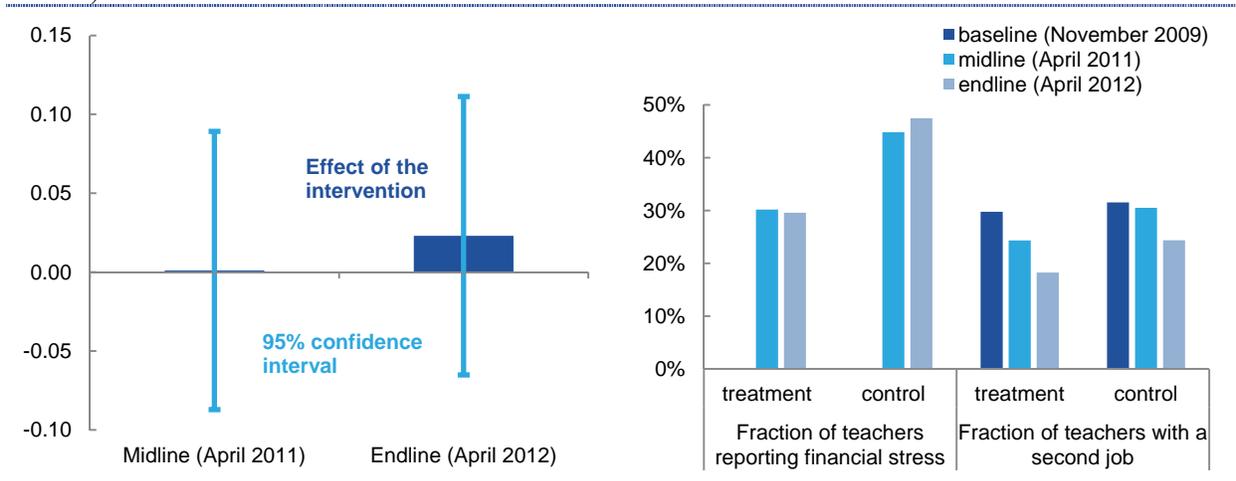
⁹³ About 80,000 students were tested in each of the three rounds, November 2009, April 2011 and April 2012.

The certification program had no impact on student test scores in language, mathematics, or science

In both primary and junior secondary schools, the evaluation found no difference in student test scores in language, mathematics, or science between treatment and control schools (Figure 43). This likely reflects the fact that teachers in treatment schools (those that participated in the certification program) did not put in greater effort in response to the pay increase. That is, there was no difference between treatment and control schools with respect to teacher test scores, the likelihood of pursuing further education (beyond that required for certification), or self-reported absence rates. The pay increase was successful in achieving some of the objectives of the certification program, namely: improving teachers' financial situation, job satisfaction, and ability to better focus on teaching by reducing the need to hold outside jobs (Figure 44).

Figure 43: The certification program had no impact on student learning outcomes⁹⁴ (deviation from the control group, measured in standard deviations of test scores)

Figure 44: The certification program improved teachers' financial situation and job satisfaction (percent of teachers)



Source: World Bank 2015

Source: World Bank 2015

⁹⁴ The reported effects are obtained from a regression of midline and endline standardized student test scores on a dummy variable indicating whether a school is in the treatment group, standardized baseline student test scores (set to zero when baseline scores are not available), a dummy variable indicating whether a student's baseline test score is not available, and a full set of 20 district dummy variables. The estimated effect at the midline is practically zero, while the estimated effect at the endline is 2 percent of a standard deviation. Standard errors allow for arbitrary clustering at the school level and are estimated at around 0.04. This means that these estimates are not statistically significantly different from zero and reasonably precisely estimated. 95-percent confidence bands around the effect estimates are presented. See De Ree, Muralidharan, Pradhan, and Rogers, 2015, for the complete analysis, more estimates and details.

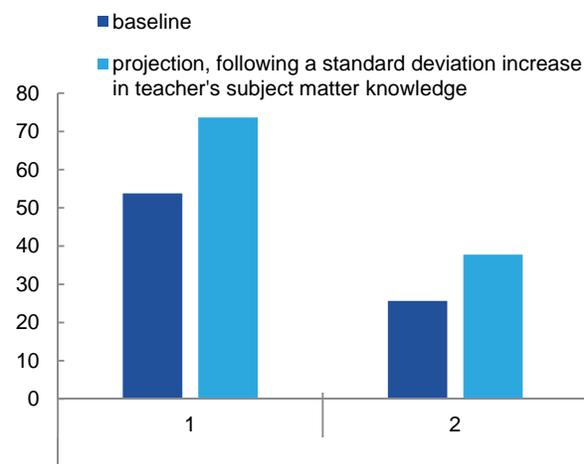
c. What matters more for student learning?

Teachers' observed subject-matter knowledge was much better at predicting student learning outcomes than teachers' academic qualifications

Other measures of teacher knowledge and quality were also collected as part of the evaluation. From these variables, teachers' observed subject-matter knowledge (as measured by specific teacher assessments conducted in the evaluation) was much better at predicting student learning outcomes than teachers' academic qualifications. It follows that improving teachers' low levels of subject content knowledge could lead to more rapid and relatively larger gains in

Figure 45: Teachers are predicted to perform better on test questions after improving their subject-matter knowledge

(percent of teachers correctly answering two questions)



Source: World Bank 2015

student learning (compared to obtaining a bachelor's degree). Figure 45 reflects how teachers performed against two specific test items⁹⁵ and their predicted performance after some improved subject content knowledge.^{96,97} World Bank (2015) projects that with such an improvement in teachers' subject content knowledge, the student learning outcomes in PISA can improve by about 20 points between 2015 and 2019 (Figure 47, below). Though an increase of 20 points is not enough to catch up with immediate neighboring countries, it would still be an improvement that has not yet been seen in the last few rounds of PISA.

With the increased desirability of teaching as a profession, Indonesia has the unique opportunity to select only the best into the profession

Attracting the top performing graduates to the teaching profession can also have an impact on student learning outcomes. There are some clear indications that the teaching profession has indeed become more popular among high-school graduates, and that this is leading to higher-quality graduates entering teacher training. A survey of students in a sample of 15 teacher training colleges found that cohorts who enrolled more recently have higher national exam scores than earlier cohorts (relative to the national average of the respective cohort)⁹⁸.

However, Indonesia is not taking advantage of the popularity of the teaching profession to select the most promising high-school graduates. In addition, it is unclear whether the current system has the checks and balances in place to hire the best, or even the best trained candidates, and provide them with teaching jobs in schools. The increased desirability of teaching as a profession has led to a surge in private teacher training colleges, which appear to be operating without much quality control or government oversight. It is unclear how this expansion has impacted the

⁹⁵ These test items are simple questions that are part of the regular high school curriculum. For details, see World Bank, 2015.

⁹⁶ This increase corresponds to one standard deviation increase in teacher performance as defined in World Bank, 2015 and has been translated into what it means in terms of correct response rate to two selected test items from the assessment to make it intuitive for the readers.

⁹⁷ Improved content knowledge could include subject specific training for the teachers.

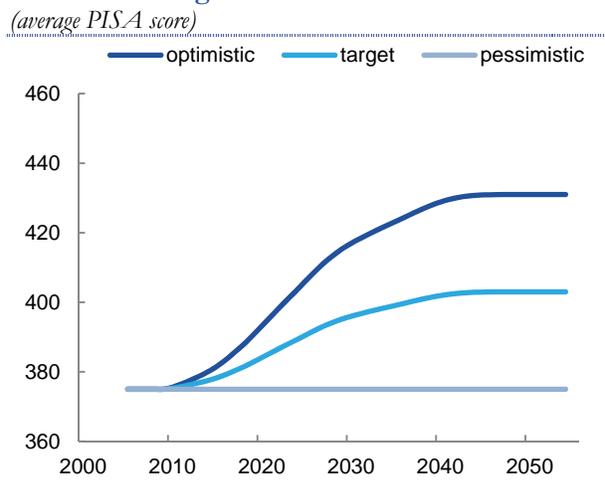
⁹⁸ Indonesia Ministry of Education and Culture, 2009 and Chang, Shaeffer, Al-Samarrai, Ragatz, De Ree, and Stevenson, 2013.

average quality of those enrolled. If the number of teacher training colleges generally adjusts to match the demand for vacancies, then the system will fail to weed out lower-caliber high-school graduates. Other countries in which there is excess demand for vacancies in teacher training colleges use this opportunity to select only the best performing students to enter the teacher training institutions. Finland—one of the top-performers on PISA—is an example of this.

Employing the best teachers can improve learning outcomes

Employing the best teachers can improve learning outcomes in the long-run (Figure 46). For instance, under an optimistic scenario, retiring teachers of average quality are replaced with a new cohort of teachers performing at the level of the current top 15 percent. Under the target scenario, retiring teachers are replaced with teachers performing at the level of the current top 30 percent. The pessimistic scenario shows what happens when new cohorts of teachers are no better than the retiring cohorts they replace. Comparing scenarios it is clear that unless the potential of the attraction mechanism is harnessed by ensuring the quality of teacher training institutions, the teacher certification program will fail to achieve its intended goals.

Figure 46: Selective hiring of high performing teachers can have a strong positive impact on student learning outcomes

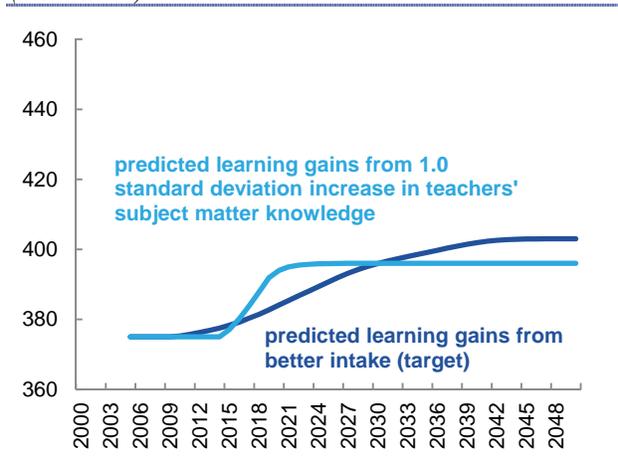


Source: World Bank 2015

Improving teacher subject knowledge can yield short term learning gains, but longer term gains will materialize from hiring better teachers

Therefore, it is imperative that teachers have the opportunity to improve their subject-matter knowledge in the short term, and that in the medium term the Government evaluates the quality of incoming teachers (Figure 47). Improving subject matter knowledge would include intensive in-service training geared specifically towards curriculum related subject matter.

Figure 47: Improving teacher subject knowledge and hiring better teachers can improve learning outcomes



Source: World Bank 2015

⁹⁹ To provide context, the PISA OECD average in Mathematics for 2012 was 494, with the best performing systems such as Shanghai, China and Singapore scoring 613 and 573 respectively. Vietnam also performed well (511), while Thailand (427) and Malaysia (421) were further behind.

d. From “Certification” to “Professional” allowance

The teacher certification program has had huge fiscal implications

In the past fifteen years, Indonesia has tripled its spending on education. Much of the increase has gone towards the certification allowance¹⁰⁰. With roughly 2 million potentially eligible teachers in the country, full implementation of the program will cost around IDR 65 trillion each year (approximately 62 percent of total education spending in 2015). In terms of fiscal impact, the teacher certification program is by far the largest education reform in recent decades. The hope is that the program has helped to lay the groundwork for further essential reforms in the sector. Teaching is once again a popular profession. However, if the professional allowance continues to be linked to simply completing a bachelor’s degree and weak certification conditions, the fiscal cost will surge further as more teachers join the profession.

Competency assessments and performance appraisals can help ensure that teachers and other stakeholders are held accountable for the progress they make

With the qualification of teachers much improved as a result of the certification program, Indonesia should now focus on the system of teacher management and continuous professional development. Such a system would prioritize demonstrated professional competencies¹⁰¹ over education level and seniority (intermediate outcomes that contribute to competency). Recognizing this, the Government established the Teacher Professional Management System (TPMS) in 2013. An important change with respect to earlier systems is that the TPMS more explicitly emphasizes the interplay between competency assessment, performance appraisal and continuous professional development. Competency assessments and performance appraisals identify gaps in a teacher’s knowledge and skills. These appraisals should subsequently feed into a system of planning, training and continuous professional development. By undertaking assessments and appraisals after a period of in-service training, teachers and other stakeholders are held accountable for the progress they make.

Re-assessment of in-service teachers and incentives for continued performance can improve the quality of teaching

The TPMS could function better if teachers and other stakeholders were financially rewarded for meeting higher competency standards. That is, part of the professional allowance could be linked to performance in order to motivate teachers to exert continuous effort. The challenge with implementing such a policy is setting targets and goals based on demonstrated competencies, rather than more easily observed proxies. Further, targets and goals should be based on indicators that can be reliably obtained, that are important (ideally, scientifically proven to be so) for better teaching, and that measure competency with reasonable levels of precision. Overall, developing and implementing reliable and effective assessments for the TPMS is a formidable challenge that cannot be resolved overnight.

A continuous system of re-assessment and performance incentives can enhance the quality of teaching

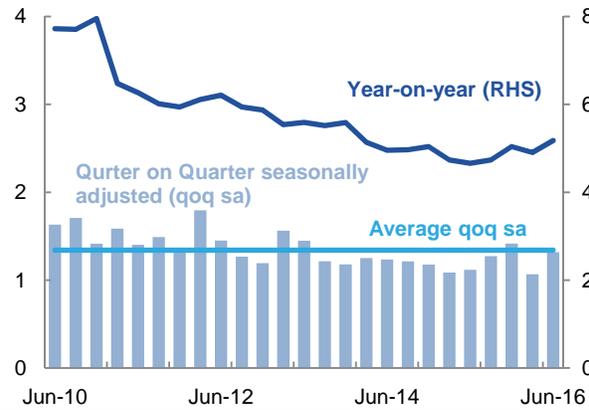
The Government is currently emphasizing both the short-run goal of improving in-service teacher training programs, with a focus on subject content knowledge, as well as the medium to long-term goal of improving the teacher selection process through testing new teachers (graduates) on their knowledge, teaching skills, learning context skills, and personal skills. Without such improvements, the huge fiscal cost would indeed turn out to be “double for nothing”.

¹⁰⁰ World Bank, 2013

¹⁰¹ In this regard, competency refers to both subject matter knowledge and pedagogic ability. The evaluation of the certification program has already found that teachers’ subject matter knowledge matters for student performance (see sub-section c). Other studies also show that pedagogical knowledge is an extremely important element of teacher competency. See for example: World Bank, 2016, “A Video Study of Teaching Practices in TIMSS Eighth Grade Mathematics Classrooms Understanding What Teaching Practices are Used, Why They are Used and How They Relate to Student Learning”.

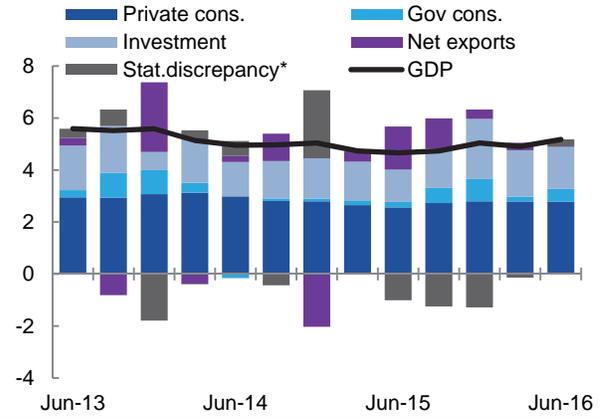
APPENDIX: A SNAPSHOT OF INDONESIAN ECONOMIC INDICATORS

Appendix Figure 1: Real GDP growth
(percent)



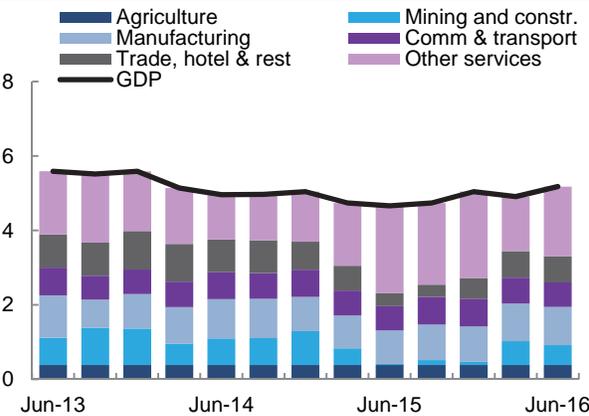
Source: BPS; World Bank staff calculations

Appendix Figure 2: Contributions to GDP expenditures
(contribution to real GDP growth yoy, percent)



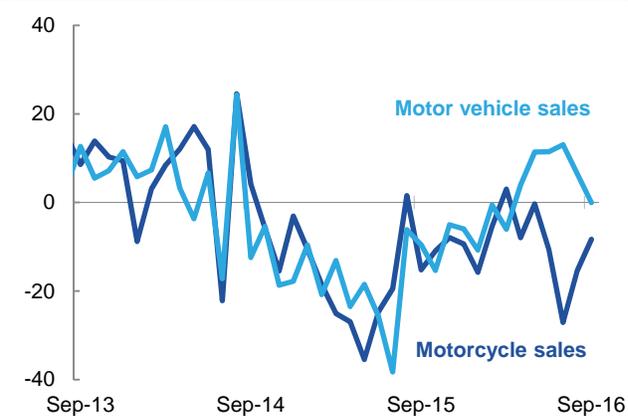
Note: * includes changes in stocks.
Source: BPS; World Bank staff calculations

Appendix Figure 3: Contributions to GDP production
(contribution to real GDP growth yoy, percent)



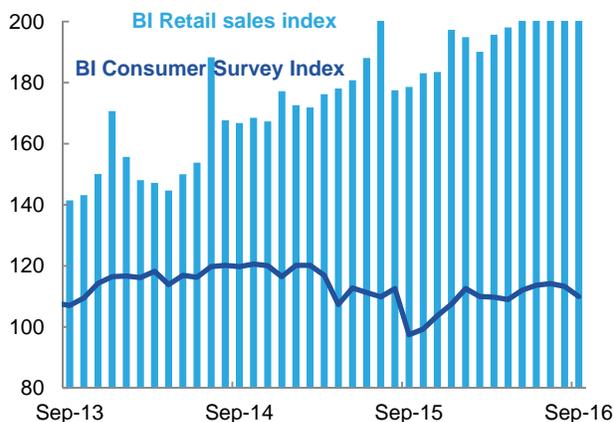
Source: BPS; World Bank staff calculations

Appendix Figure 4: Motorcycle and motor vehicle sales
(seasonally-adjusted sales growth yoy, percent)



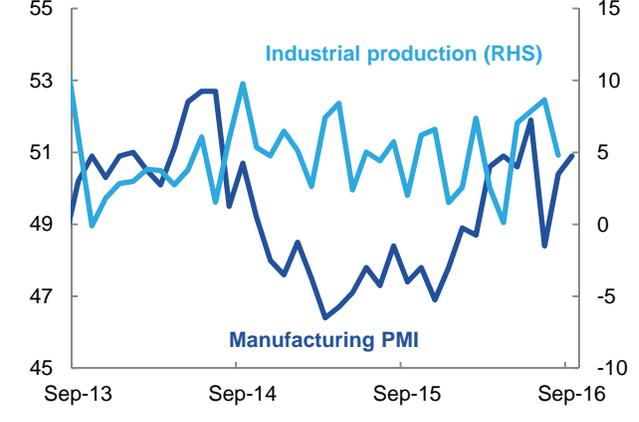
Source: CEIC; World Bank staff calculations

Appendix Figure 5: Consumer indicators
(retail sales index: 2010=100)



Source: BI; World Bank staff calculations

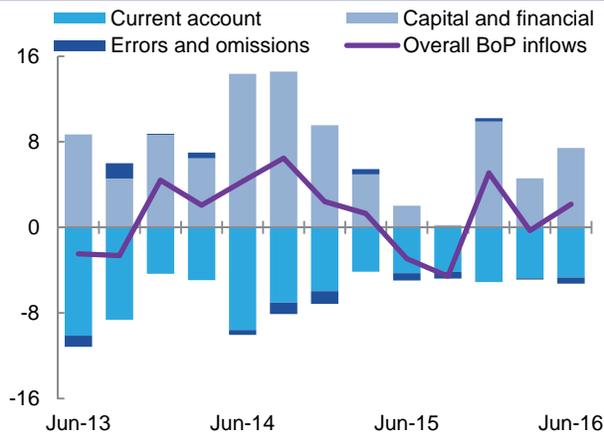
Appendix Figure 6: Industrial production indicators
(PMI diffusion index; industrial production growth yoy, percent)



Source: BPS; Nikkei/Markit; World Bank staff calculations

Appendix Figure 7: Balance of payments

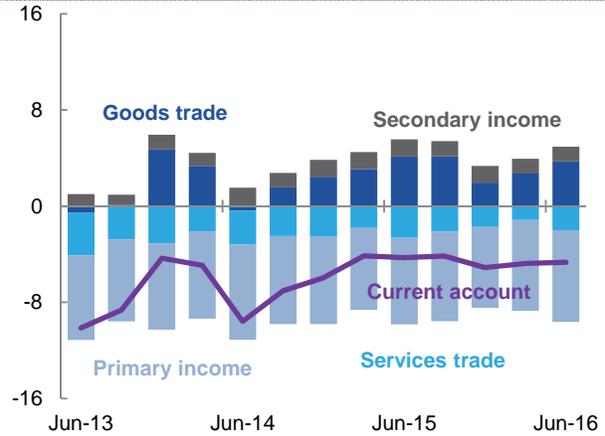
(USD billion)



Source: BI; World Bank staff calculations

Appendix Figure 8: Current account components

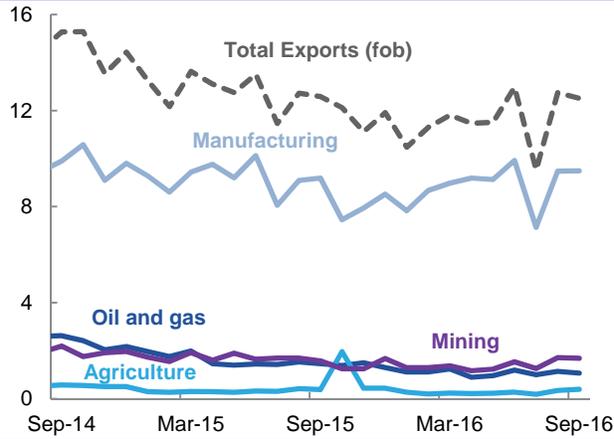
(USD billion)



Source: BI; World Bank staff calculations

Appendix Figure 9: Exports of goods

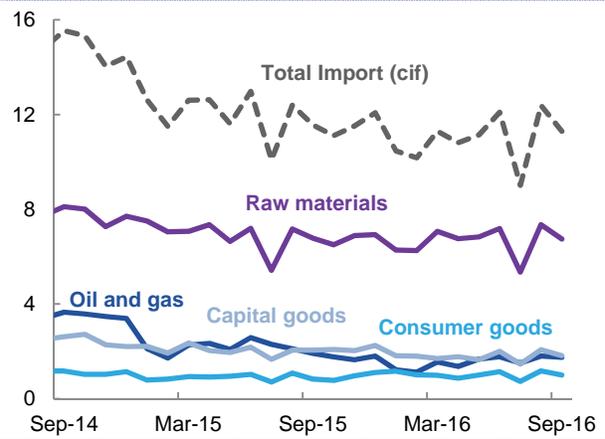
(USD billion)



Source: BPS; World Bank staff calculations

Appendix Figure 10: Imports of goods

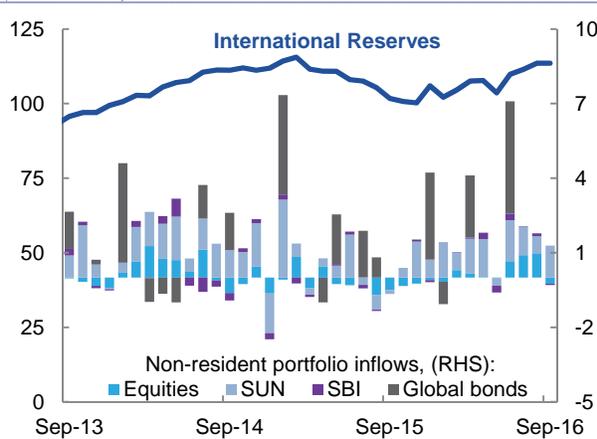
(USD billion)



Source: BPS; World Bank staff calculations

Appendix Figure 11: Reserves and capital flows

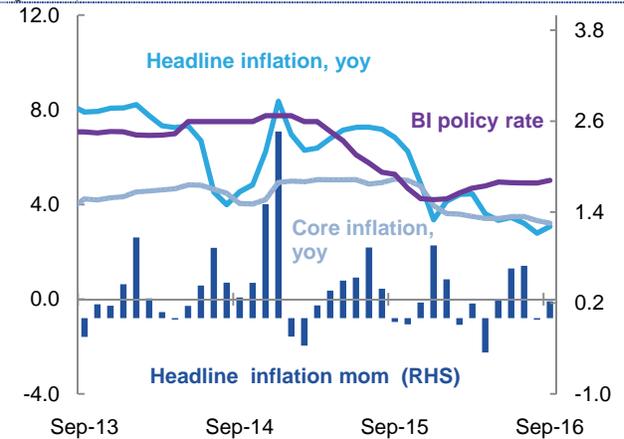
(USD billion)



Source: BI; MoF; World Bank staff calculations

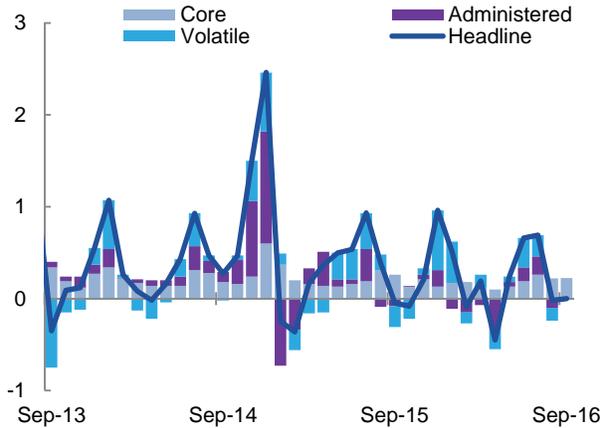
Appendix Figure 12: Inflation and monetary policy

(percent)



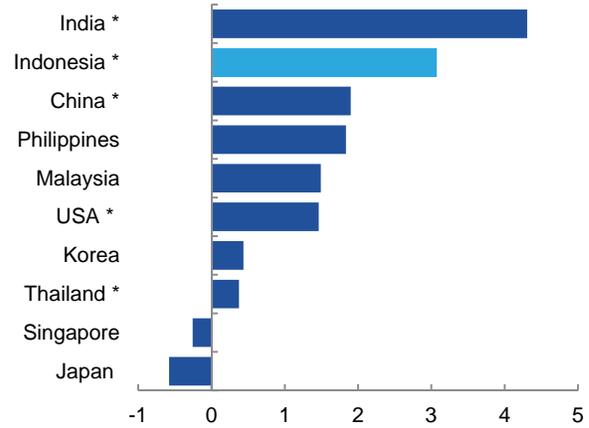
Source: BPS; BI; World Bank staff calculations

Appendix Figure 13: Monthly breakdown of CPI
(percentage point contributions to monthly growth)



Source: BPS; World Bank staff calculations

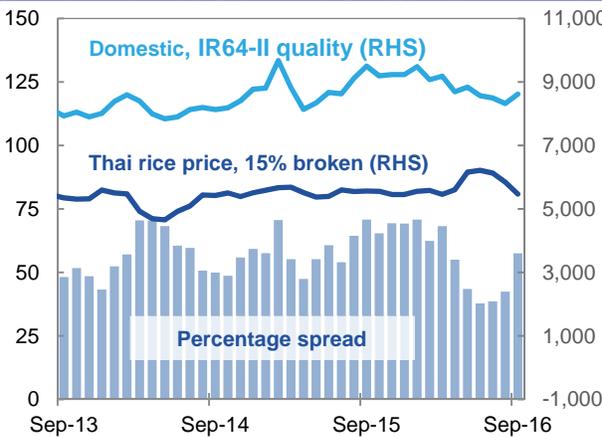
Appendix Figure 14: Inflation comparison across countries
(change yoy)



*Note: September 2016; others August.

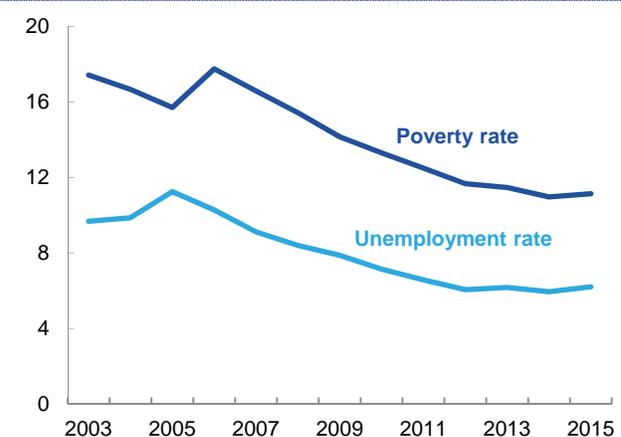
Source: BPS; CEIC; World Bank staff calculations

Appendix Figure 15: Domestic and international rice prices
(percent LHS, wholesale price, in IDR per kg RHS)



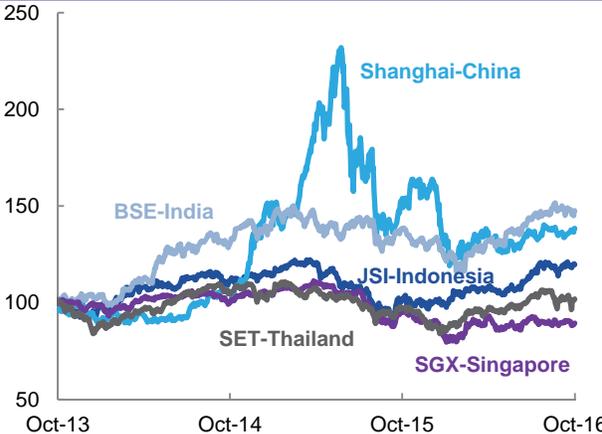
Source: Cipinang wholesale rice market; FAO; World Bank staff calculations

Appendix Figure 16: Poverty and unemployment rate
(percent)



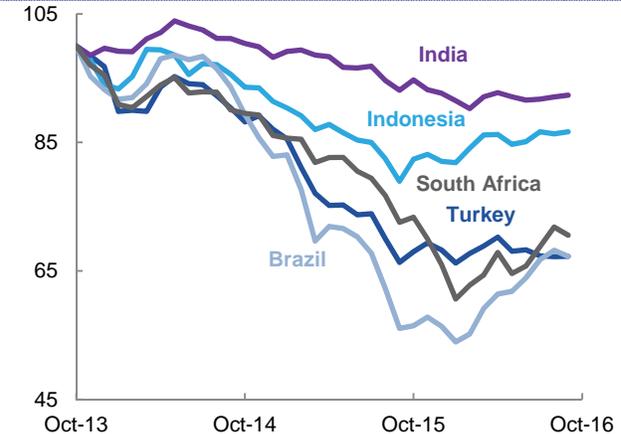
Source: BPS; World Bank staff calculations

Appendix Figure 17: Regional equity indices
(daily index in local currency, October 11 2013=100)



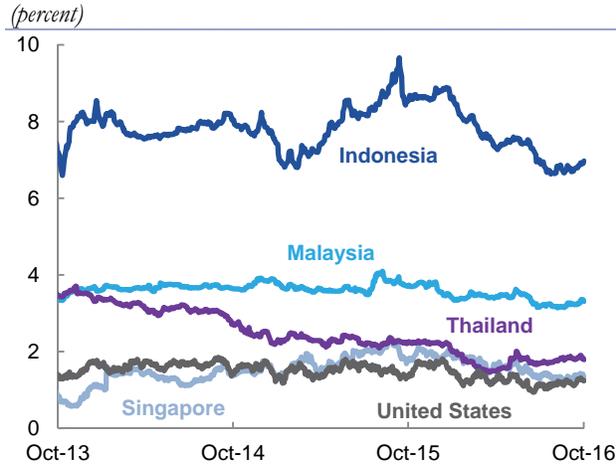
Source: CEIC; World Bank staff calculations

Appendix Figure 18: Selected currencies against USD
(monthly index: October 2013=100)



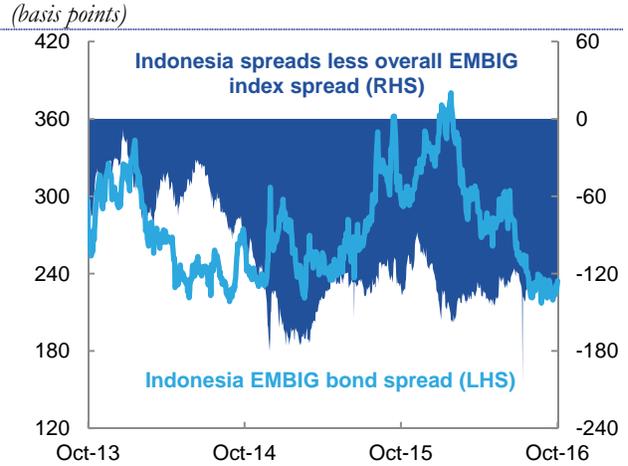
Source: CEIC; World Bank staff calculations

Appendix Figure 19: 5-year local currency gov. bond yields



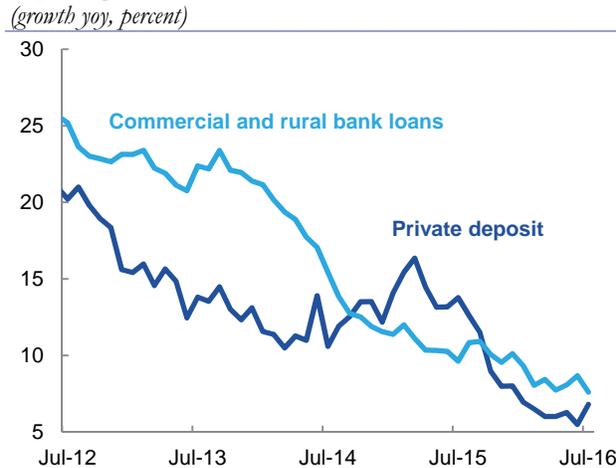
Source: CEIC; World Bank staff calculations

Appendix Figure 20: Sovereign USD bond EMBIG spread



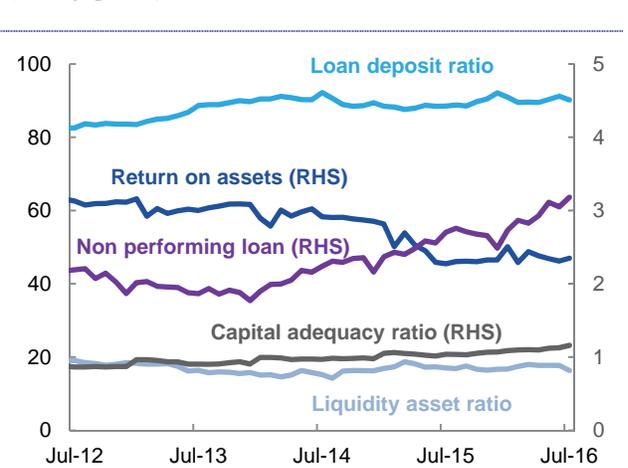
Source: JP Morgan; World Bank staff calculations

Appendix Figure 21: Commercial and rural credit and deposit growth



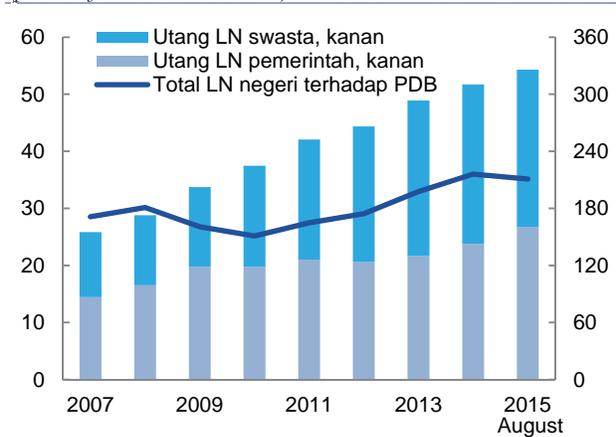
Source: BI; World Bank staff calculations

Appendix Figure 22: Banking sector indicators



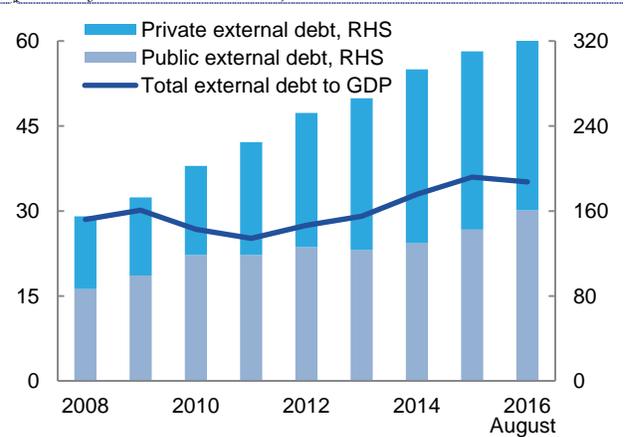
Source: BI; World Bank staff calculations

Appendix Figure 23: Government debt



Source: BI; MoF; World Bank staff calculations

Appendix Figure 24: External debt



Source: BI; World Bank staff calculations

Appendix Table 1: Budget outcomes and projections

(IDR trillion)

	2012	2013	2014	2015	2016	2017
	Actual	Actual	Actual	Actual	Revised Budget	Proposed Budget
A. State revenue and grants	1,338	1,439	1,550	1,508	1,786	1,738
1. Tax revenue	981	1,077	1,147	1,240	1,539	1,496
2. Non-tax revenue	352	355	399	256	245	240
B. Expenditure	1,491	1,651	1,777	1,807	2,083	2,070
1. Central Government	1,011	1,137	1,204	1,183	1,307	1,310
2. Transfers to the regions	481	513	574	623	776	760
C. Primary balance	-53	-99	-93	-142	-106	-111
D. SURPLUS / DEFICIT	-153	-212	-227	-298	-297	-333
(percent of GDP)	-1.8	-2.2	-2.1	-2.6	-2.4	-2.4

Note: Budget balance as percentage of GDP uses the revised and rebased GDP.

Source: MoF; World Bank staff calculations

Appendix Table 2: Balance of payments

(USD billion)

	2013	2014	2015	2015				2016	
				Q1	Q2	Q3	Q4	Q1	Q2
Balance of payments	-7.3	15.2	-1.1	1.3	-2.9	-4.6	5.1	-0.3	2.2
<i>Percent of GDP</i>	-0.8	1.7	-0.1	0.6	-1.3	-1.9	2.2	-0.1	0.9
Current account	-29.1	-27.5	-17.7	-4.1	-4.3	-4.2	-5.1	-4.8	-4.7
<i>Percent of GDP</i>	-3.2	-3.1	-2.1	-1.8	-1.9	-1.7	-2.2	-2.1	-2.0
Trade balance	-6.2	-3.0	5.0	1.2	1.5	2.0	0.2	1.6	1.7
Net income & current transfers	-22.9	-24.5	-22.7	-5.4	-5.8	-6.2	-5.3	-6.3	-6.4
Capital & Financial Account	22.0	44.9	17.1	5.0	2.0	0.2	9.9	4.6	7.4
<i>Percent of GDP</i>	2.4	5.0	2.0	2.2	0.9	0.1	4.3	2.0	3.2
Direct investment	12.2	14.7	10.6	1.6	3.9	1.8	3.3	2.7	3.0
Portfolio investment	10.9	26.1	16.7	8.5	5.6	-2.2	4.9	4.4	8.4
Other investment	-0.8	4.3	-10.3	-5.3	-7.4	0.4	2.0	-2.5	-3.9
Errors & omissions	-0.2	-2.2	-0.5	0.5	-0.7	-0.6	0.3	-0.1	-0.6
Foreign reserves*	99.4	111.9	105.9	111.6	108.0	101.7	105.9	107.5	109.8

Note: * Reserves at end-period.

Source: BI; BPS; World Bank staff calculations

Appendix Table 3: Indonesia's historical macroeconomic indicators at a glance

	2000	2005	2010	2011	2012	2013	2014	2015
National Accounts (% change)¹								
Real GDP	4.9	5.7	6.2	6.2	6.0	5.6	5.0	4.8
Real investment	11.4	10.9	8.5	8.9	9.1	5.0	4.6	5.1
Real consumption	4.6	64.0	4.1	5.1	5.4	5.7	4.7	4.9
Private	3.7	0.9	4.8	5.1	5.5	5.5	5.3	4.8
Government	14.2	6.6	0.3	5.5	4.5	6.7	1.2	5.4
Real exports, GNFS	30.6	16.6	15.3	14.8	1.6	4.2	1.0	-2.0
Real imports, GNFS	26.6	17.8	17.3	15.0	8.0	1.9	2.2	-5.8
Investment (% GDP)	20	24	31	31	33	32	33	33
Nominal GDP (USD billion)	165	286	755	893	918	913	890	862
GDP per capita (USD)	857	1,396	3,167	3,688	3,741	3,668	3,530	3,374
Central Government Budget (% GDP)²								
Revenue and grants	20.8	16.8	14.5	15.5	15.5	15.1	14.7	13.1
Non-tax revenue	9.0	5.0	3.9	4.2	4.1	3.7	3.8	2.2
Tax revenue	11.7	11.7	10.5	11.2	11.4	11.3	10.9	10.7
Expenditure	22.4	17.3	15.2	16.5	17.3	17.3	16.8	15.7
Consumption	4.0	2.8	3.6	3.8	3.9	4.1	4.0	4.5
Capital	2.6	1.1	1.2	1.5	1.7	1.9	1.4	1.9
Interest	5.1	2.2	1.3	1.2	1.2	1.2	1.3	1.4
Subsidies	6.3	4.1	2.8	3.8	4.0	3.7	3.7	1.6
Budget balance	-1.6	-0.6	-0.7	-1.1	-1.8	-2.2	-2.1	-2.6
Government debt	97.9	44.3	24.5	23.1	23.0	24.9	24.7	26.8
o/w external government debt	51.4	23.4	11.1	10.2	9.9	11.2	10.2	11.9
Total external debt (including private sector)	87.1	47.1	26.8	25.2	27.5	29.2	32.9	36.0
Balance of Payments (% GDP)³								
Overall balance of payments	..	0.2	4.0	1.3	0.0	-0.8	1.7	-0.1
Current account balance	4.8	0.1	0.7	0.2	-2.7	-3.2	-3.1	-2.1
Exports GNFS	42.8	35.0	22.0	23.8	23.0	22.5	22.3	19.8
Imports GNFS	33.9	32.0	19.2	21.2	23.2	23.2	22.7	19.2
Trade balance	8.9	2.9	2.8	2.7	-0.2	-0.7	-0.3	0.6
Financial account balance	..	0.0	3.5	1.5	2.7	2.4	5.1	2.0
Direct investment	-2.8	1.8	1.5	1.3	1.5	1.3	1.7	1.2
Gross official reserves (USD billion)	29.4	34.7	96.2	110.1	112.8	99.4	111.6	101.7
Monetary (% change)³								
GDP deflator ¹	20.4	14.3	8.3	7.5	3.8	5.0	5.4	4.2
Bank Indonesia interest key rate (%)	..	9.1	6.5	6.0	5.8	7.5	7.8	7.5
Domestic credit (eop)	..	24.3	22.8	24.6	23.1	21.6	11.6	10.4
Nominal exchange rate (average, IDR/USD) ⁴	8,392	9,705	9,087	8,776	9,384	10,460	11,869	13,389
Prices (% change)¹								
Consumer price Index (eop)	9.4	17.1	7.0	3.8	3.7	8.1	8.4	3.4
Consumer price Index (average)	3.7	10.5	5.1	5.3	4.0	6.4	6.4	6.4
Indonesia crude oil price (USD per barrel, eop) ⁵	28	53	79	112	113	107	60	36

Source: ¹ BPS and World Bank staff calculations, using revised and 2010 rebased figures; ² MoF and World Bank staff calculations; ³ BI; ⁴ IMF; ⁵ CEIC

Appendix Table 4: Indonesia's development indicators at a glance

	2000	2005	2010	2011	2012	2013	2014	2015
Demographics¹								
Population (million)	213	227	242	245	248	251	254	258
Population growth rate (%)	1.3	1.2	1.3	1.3	1.3	1.3	1.3	1.2
Urban population (% of total)	42	46	50	51	51	52	53	53.7
Dependency ratio (% of working-age population)	55	54	51	51	50	50	49	49.0
Labor Force²								
Labor force, total (million)	98	106	117	117	120	120	122	122
Male	60	68	72	73	75	75	76	77
Female	38	38	45	44	46	45	46	46
Agriculture share of employment (%)	45	44	38	36	35	35	34	33
Industry share of employment (%)	17	19	19	21	22	20	21	22
Services share of employment (%)	37	37	42	43	43	45	45	45
Unemployment, total (% of labor force)	8.1	11.2	7.1	7.4	6.1	6.2	5.9	6.2
Poverty and Income Distribution³								
Median household consumption (IDR 000 per month)	104	211	374	421	446	487	548	623
National poverty line (IDR 000 per month)	73	129	212	234	249	272	303	331
Population below national poverty line (million)	38	35	31	30	29	28	28	29
Poverty (% of population below national poverty line)	19.1	16.0	13.3	12.5	12.0	11.4	11.3	11.2
Urban (% of population below urban poverty line)	14.6	11.7	9.9	9.2	8.8	8.4	8.3	8.3
Rural (% of population below rural poverty line)	22.4	20.0	16.6	15.7	15.1	14.3	14.2	14.2
Male-headed households	15.5	13.3	11.0	10.2	9.5	9.2	9.0	9.3
Female-headed households	12.6	12.8	9.5	9.7	8.8	8.6	8.6	11.1
Gini index	0.30	0.35	0.38	0.41	0.41	0.41	0.41	0.41
Percentage share of consumption: lowest 20%	9.6	8.7	7.9	7.4	7.5	7.4	7.5	7.2
Percentage share of consumption: highest 20%	38.6	41.4	40.6	46.5	46.7	47.3	46.8	47.3
Public expenditure on social security & welfare (% of GDP) ⁴	..	0.4	0.4	0.4	0.4	0.6	0.5	0.6
Health and Nutrition¹								
Physicians (per 1,000 people)	0.16	0.13	0.29	..	0.20	..	..	..
Under five mortality rate (per 1000 children under 5 years)	52	42	33	32	30	29	28	27
Neonatal mortality rate (per 1000 live births)	22	19	16	16	15	15	14	14
Infant mortality (per 1000 live births)	41	34	27	26	25	24	24	23
Maternal mortality ratio (modeled est., per 100,000 live births)	265	212	165	156	148	140	133	126
Measles vaccination (% of children under 2 years)	74	77	78	80	85	84	77	69
Total health expenditure (% of GDP)	2.0	2.8	2.9	2.7	2.9	2.9	2.8	..
Public health expenditure (% of GDP)	0.7	0.8	1.1	1.1	1.2	1.2	1.1	..
Education³								
Primary net enrollment rate (%)	..	92	92	92	93	92	93	97
Female (% of total net enrollment)	..	48	48	49	49	50	48	49
Secondary net enrollment rate (%)	..	52	61	60	60	61	65	66
Female (% of total net enrollment)	..	50	50	50	49	50	50	51
Tertiary net enrollment rate (%)	..	9	16	14	15	16	18	20
Female (% of total net enrollment)	..	55	53	50	54	54	55	56
Adult literacy rate (%)	..	91	91	91	92	93	93	95
Public spending on education (% of GDP) ⁵	..	2.7	3.5	3.6	3.8	3.8	3.6	..
Public spending on education (% of spending) ⁵	..	14.5	20.0	20.2	20.1	20.0	19.9	20.6
Water and Sanitation¹								
Access to an improved water source (% of population)	78	81	85	85	86	86	87	87
Urban (% of urban population)	91	92	93	93	94	94	94	94
Rural (% of rural population)	68	71	76	77	77	78	79	80
Access to improved sanitation facilities (% of population)	44	53	57	58	59	60	61	61
Urban (% of urban population)	64	70	70	71	71	72	72	72
Rural (% of rural population)	30	38	44	45	46	47	48	48
Others¹								
Disaster risk reduction progress score (1-5 scale; 5=best)	..	..	..	3.3	..	..	..	..
Proportion of seats held by women in national parliament (%) ⁶	8	11	18	18	19	19	17	17

Source: ¹ World Development Indicators; ² BPS (Sakernas); ³ BPS (Susenas) and World Bank; ⁴ MoF, Bappenas, and World Bank staff calculations, only includes spending on rice distribution for the poor (RASTRA), health insurance for the poor, scholarships for the poor, and Family Hope Program (PKH) and actuals; ⁵ MoF; ⁶ Inter-Parliamentary Union



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