INDONESIA ECONOMIC QUARTERLY

December 2017

Decentralization that delivers

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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.

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Acronyms

Bappeda	Badan Perencanaan Pembangunan Daerah
BI	Bank Indonesia
BOP	Balance of Payment
BPK	Badan Pemeriksa Keuangan (BPK/Supreme Audit Agency)
BPKP	Badan Pengawasan Keuangan dan Pembangunan
BPNT	Bantuan Pangan Non Tunai
BPS	Badan Pusat Statistik
CCB	Cyclical Capital Buffe
CPA	Comprehensive Performance Assessment
CPI	Consumer Price Index
CPO	Crude Palm Oil
DAK	Dana Alokasi Khusus
DID	Dana Insentif Daerah
DKI Jakarta	Daerah khusus Ibukota Jakarta
DPR	Dewan Perwakilan Rakyat
DPRD	Dewan Perwakilan Rakyat Daerah
EKPPD	Evaluasi Kinerja Penyelenggaraan Pemerintah Daerah (Evaluation of Local Government Implementation)
EMCI	Emerging Market Currency
ESDM	Ministry of Energy and Mineral Resources
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GMM	Generalized Method of Moments
ILPPD	Informasi Laporan Penyelenggaraan Pemerintah Daerah
JCI	Jakarta Composite Index
KemenPAN-RB	Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi (Ministry of Administrative and Bureaucracy Reforms)
KPPOD	Komite Pemantauan Pelaksanaan Otonomi Daerah (Regional Autonomy Watch)
KPPN	Kantor Pelayanan Perbendaharaan Negara
LAKIP	Laporan Akuntabilitas Kinerja Pemerintah
LGDP	Local Government Development Program
LHS	Left Hand ide
LKPJ	Laporan Keterangan Pertanggungjawaban
LNG	Liquefied Natural Gas
LPPD	Laporan Penyelenggaraan Pemerintah Daerah
MoF	Ministry of Finance
MenPan RB	Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi
MOHA	Ministry of Home Affairs
NGO	Non-Governmental Organization
NPL	Non-Performing Loans
OECD	Organization of Economic Cooperation and Development
O&G	Oil & Gas
OPEC	Organization of the Petroleum Exporting Countries
PISA	International Student Assessment
PKL	Program Keluarga Harapan
PLN	Perusahaan Listrik Negara
PMI	Purchasing Managers' Index
P2TPD	Prakarsa Pembaharuan Tata Pemerintah Daerah (the Initiative for Local Governance Reform)
RHS	Right Hand Side
SAKIP	Sisitem Akuntabilitas Kinerja Institusi Pemerintah (Evaluation of Government Institution Performance Accountability System)
SIKD	Sistem Informasi Keuangan Daerah (Regional Financial Information System)

SOE	State of Enterprises
SUN	Surat Utang Negara
Susenas	Survei Sosial Ekonomi Nasional
TA	Technical Assitant
ToT	Terms of Trade
UN	Ujian Nasional (National Exam)
VAT	Value added Tax
WTP	Wajar Tanpa Pengecualian (Unqualified opinion)

Table of contents

LIST OF FIGURES

LIST OF APPENDIX FIGURES

LIST OF TABLES

LIST OF APPENDIX TABLES

LIST OF BOXES

Executive summary: Decentralization that delivers

Commodity tailwinds and stronger external demand boost GDP growth in Q3…

The Indonesian economy strengthened modestly in Q3. Economic growth was supported by higher commodity prices, stronger global growth, rebounding international trade, and relatively accommodative monetary and financial conditions. At the same time, domestic conditions improved, with tentative green shoots in private consumption and stronger domestic demand overall.

…partly through strong investment and export growth

Real GDP growth strengthened modestly from 5.0 percent yoy in Q2 to 5.1 percent in Q3 as stronger investment, surging exports and higher government consumption more than offset the drag from significant inventory destocking. Investment growth rose to its highest rate in more than 4 years, partly supported by lower financing costs, improvements in the general business environment and stronger public capital investment. FDI also recorded the largest net inflow in more than seven years in Q3. Consistent with firming global trade and higher prices of Indonesia's key export commodities, exports surged in Q3, with raw and processed commodity exports, especially coal and palm oil, picking up notably. Exports of textiles, clothing, footwear, electricals, and other manufactured goods also recorded strong growth. Both export and import volumes registered double-digit growth for the first time since 2012.

There are signs that private consumption may have started to recover

While private consumption growth remained flat on a year-on-year (yoy) basis, there are indications the softness observed in Q2 has started to dissipate. In particular, seasonally adjusted data show a pickup in quarter-on-quarter growth in private consumption in Q3, suggesting an improvement. At the same time, sales of consumer durables, such as passenger car and motorcycles, both rebounded, with the latter jumping double-digits in Q3, after three years of consecutive contractions. Retail sales growth remained weak over the quarter, but may not adequately capture changes in consumer behavior, such as notably higher spending on services.

The current account deficit narrowed due to stronger exports

Partly driven by a wider goods trade surplus, the current account deficit narrowed to 1.7 percent of GDP from 1.9 percent of GDP in Q2. Nominal exports picked up surpassing imports that also increased with growing domestic demand, especially investment. Higher commodity prices and stronger demand from Indonesia's trading partners provided support to the export momentum. On the services side, tourist arrivals hit all-time highs.

Consumer price inflation eased with broad-based benign prices

Headline inflation decreased to an average of 3.8 percent yoy in Q3, as food price inflation continued to ease and the effect of administered price hikes began to wane. Benign prices in most non-food categories also contributed to lower inflation. Combined with a narrower current account deficit, easing inflation opened the door for more accommodative monetary policy to support growth. Bank Indonesia (BI) cut its benchmark policy rate, the 7-day reverse repo, twice by 25 basis points in August and September.

Bond yields fell to a 4-year low

Investor appetite for Indonesian assets continued to be strong with bond yields falling to a four-year low, while foreign direct investment was the strongest in seven years. Investor confidence remained supported by sound macro-fiscal fundamentals. Fiscal management continued to improve, with stronger revenue collections supporting a rebound in central Government spending following a cut last year.

Outlook continues to be favorable as the conducive external environment persists and domestic conditions become more positive

Real GDP growth is estimated to tick up to 5.1 percent in 2017 and further strengthen to 5.3 percent in 2018 (Table 1), driven by a continuation of strong investment growth and a modest, but continued recovery in

Table 1: Real GDP growth is expected to rise to 5.3 percent in 2018

		2016	2017e	2018f
Real GDP	(Annual percent change)	5.0	5.1	5.3
Consumer price index	(Annual percent change)	3.5	3.8	3.5
Current account balance	(Percent of GDP)	-1.8	-1.6	-1.8
Budget balance	(Percent of GDP)	-2.5	-2.7	-2.2

Source: Bank Indonesia; Central Bureau of Statistics (BPS); Ministry of Finance; World Bank staff calculations

Note: 2016 actual outcome; e and f stand for World Bank estimate and forecast

consumption. Higher consumption growth will be supported by firm commodity prices, low inflation, a stable Rupiah, strong labor markets and easing borrowing costs. Stronger foreign direct investment inflows and public capital expenditures, particularly in 2017, are forecast to buttress investment expenditures by the private sector.

The 2018 budget reaffirms the country's commitment to fiscal responsibility

The 2018 Budget sets challenging but achievable tax revenue targets, and broadly reflects continuity in the Government's priorities on social and infrastructure spending. At 2.2 percent of GDP, the 2018 fiscal deficit target in the Budget is lower than in previous years, providing increased fiscal space in the short term. In line with the stronger macroeconomic outlook for 2018 and ongoing tax policy and administration reforms, the World Bank also projects a budget deficit of 2.2 percent of GDP, the same as the 2018 Budget target.

Risks to the outlook include slower private consumption growth, weaker than

Risks to the outlook are tilted to the downside. The signs of growth in private consumption are tentative, and many signals remain mixed, especially into the fourth quarter. Given that it constitutes more than half of GDP, any slowdown in private consumption will have strong repercussions on total expenditures. While the Indonesian economy has seen some economic diversification in recent years,

expected commodity prices…	economic performance is still substantially tied to commodities. As such, sharper than expected declines in commodity prices, such as that of coal, could significantly weaken the country's terms-of-trade and exert downward pressure on external balances as well as government revenues, dragging on growth. On the other hand, a sharp increase in oil prices may lead to a combination of higher inflation and reductions in consumer purchasing power, and/or a greater subsidy burden for the overall public sector.
… and volatility in global financial markets	Meanwhile, as the U.S. Federal Reserve proceeds on its monetary policy normalization, both in terms of increasing the Federal Funds rate and reducing its balance sheets, any faster than expected tightening could spark volatility in the financial markets. Such volatility could result in sudden capital outflows from emerging market economies including Indonesia, triggering a sharp increase in borrowing costs and volatility, which would stifle investment. However, there are also some upside external risks including the possibility of stronger-than-expected growth in the largest advanced economies and EMDEs – reflecting, for instance, a more pronounced investment-led recovery in the United States and the Euro Area, or a stronger rebound in large commodity exporters.
	This edition includes a focus topic that discusses how local government service delivery performance has changed over time, and what levers the central government can use to encourage and support better performance in future.
Good governance practices, such as incorporating result-orientation into intergovernmental fiscal transfers, and citizen engagement at the local level, are necessary to improve local service delivery	Indonesia has experienced significant decentralization in the past 15 years. The Governance and Fiscal Balance Law in 1999 provided greater political and economic powers to local governments in managing resources and addressing the needs of their citizens. In particular, transfers to subnational governments – especially districts – surged and over half of public expenditure in Indonesia today is undertaken at the subnational level. Decentralization increases opportunities for local solutions to local problems, the accountability of local leaders towards citizens, and the entry of political outsiders. Not surprisingly, the process of decentralization to-date has produced varying results in terms of citizen access to local services. There has been general improvement and regional convergence in access of services, but the quality of services remain poor and regional disparity is widening. Simply increasing local government spending for the most lagging districts may not increase access to services, because they already have high levels of spending per capita but poor audit results.
	This article addresses three main questions: (i) what happened to local service delivery during decentralization? (ii) how do we move the needle on local government performance in terms of provision of local services? (iii) what design mechanisms can incentivize local leaders and sub-national governments to improve local service delivery? We offer three key policy recommendations to help align incentives to promote service delivery performance by local leaders and public officials: i) implementing good practices for evaluating local government performance, ii) embedding results-orientation into intergovernmental fiscal transfers, and iii) use transparent and comparative local government performance data to stimulate citizen engagement.

A. Economic and fiscal update

1. Global economic conditions continue to be supportive

Global economic conditions have been supportive…

The global economy continues to experience a broad-based cyclical recovery[1]. Global growth remained solid in Q3, driven by firmer world trade, rebounding investment and heightened manufacturing activity. Recent data suggest continued strengthening in Q4. At the same time, financial markets have remained favorable, amid improved global growth prospects and expectations of persistently low interest rates. The continued recovery in commodity prices has also supported growth in commodity exporting countries. These favorable global economic conditions have lifted Indonesia's economy, particularly through investment and exports, the two components that drove the country's economic growth in Q3.

…as economic activity continued to improve in Q3

The pickup in global economic activity that began since early 2016, has persisted and gained momentum through Q3 2017. High frequency indicators suggest continued strengthening in Q4. Among major economies, growth accelerated in the United States and remained vigorous in the Euro Area. Growth in Japan slowed in Q3 to 1.4 percent quarter on quarter seasonally adjusted annualized rate (qoq saar) following a two-year high of 2.6 percent in Q2, marking the seventh consecutive quarter of expansion—the longest period of positive growth since 2001. In the United States, growth increased to 3.3 percent (qoq saar) from an already strong 3.1 percent in Q2, while in the Euro Area growth in Q3 remained buoyant at 2.5 percent qoq saar.[2] World exports growth rose from 4.3 percent yoy in Q2 to 5.0 percent in Q3, the highest levels since Q1 2011[3]. At the same time, global industrial production growth accelerated to 4.0 percent yoy in Q3, from 3.4 percent in Q2 (Figure 1). The upbeat global activity partly reflects firming domestic demand, as well as continuing positive business sentiment, as indicated by the global composite Purchasing Managers' Index

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[1] World Bank (2018).
[2] Japan data was taken from Economic and Social Research Institute, Euro Area data was taken from Euro Stat and United States data was taken from Bureau of Economic Analysis.
[3] CPB World Trade Monitor (September 2017).

(PMI), rising modestly to 53.8 in Q3[4], the highest in 12 quarters (Figure 2). The strengthening Global PMI index in November suggests that the upturn is likely to continue in Q4.

Figure 1: Global trade and industrial production continued to expand at the fastest rate since 2011
(growth yoy, percent)

Figure 2: Global Composite Purchasing Managers' Index recorded strong outcomes
(index)
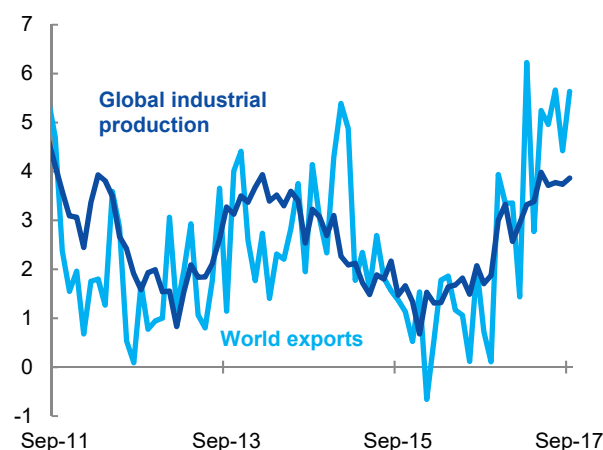
Source: CBP World Trade Monitor; World Bank staff calculations
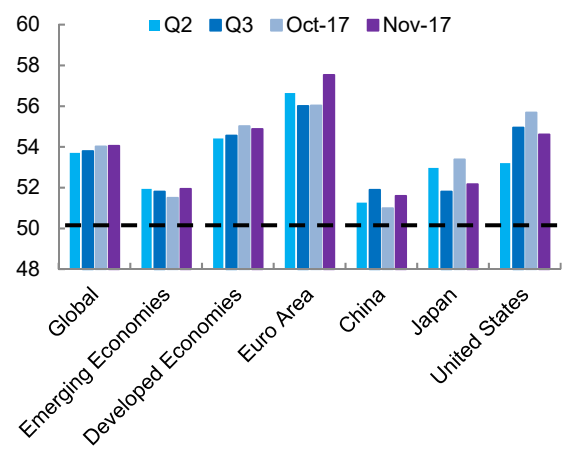
Source: Markit Economics, Haver Analytics; World Bank staff calculations
Note: A reading above 50 represents an expansion and a reading below 50 represents a contraction.

Energy commodities gained further in Q3

Global commodity prices continued to climb in Q3 2017, driven mostly by increases in energy prices, while non-energy prices remained relatively flat. The World Bank energy price index rose 13.6 percent yoy in Q3, slightly lower than Q2 growth of 14.8 percent (Figure 3), mostly due to higher coal and oil prices, on account of sound demand and declining stocks. Partly due to the increases in coal prices (of which Indonesia is a net exporter) being larger than the increases in oil prices (of which Indonesia is a net importer), Indonesia's terms-of-trade improved in Q3[5], and will likely continue in Q4, as energy prices rose 28.3 percent yoy in November[6].

Global financial markets remained stable despite ongoing monetary policy normalization in advanced economies

After the temporary effects of the escalation of North Korean tensions in August, global financial markets were relatively calm for the remainder of Q3 and into Q4 amid improved global growth prospects and expectations of persistently low interest rates. Volatility was low both in the equity and bonds markets[7] (Figure 4), particularly after the nomination of the new U.S. Federal Reserve Board chairman, and despite the ongoing normalization of U.S. monetary policy[8].

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[44] A reading above the 50-point threshold indicates expansion.

[5] See detailed discussion in Section 5 on commodity prices.

[6] Brent oil, the main international oil price marker, averaged USD 62.6/bbl in November, nearly 35 percent higher than a year earlier. Metals prices softened slightly in November but are 30 percent higher than a year ago, due to strong demand. Agricultural prices have been broadly stable, reflecting well-supplied markets.

[7] As shown by the VIX and MOVE index. The VIX index measures volatility in the equity markets, while the MOVE index is a gauge of bond market volatility.

[8] Moreover, market has priced in a 70 percent probability of another rate increase in the Federal Funds rate by the end of 2017 following the Federal Open Market Committee announcement on September (IMF, 2017).

Figure 3: International energy commodity prices continue to increase in Q3
(index, January 2016 = 100)

Figure 4: Global financial markets remained stable
(index; 1 January 2017 = 100)
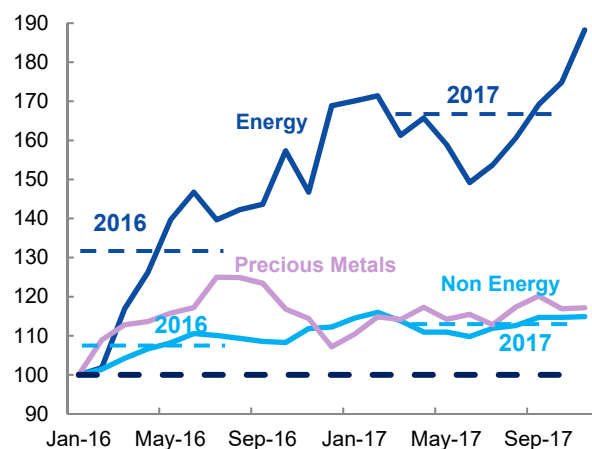
Source: World Bank Pink Sheet; World Bank staff calculations
Note: Horizontal dash lines indicate average January – October
price index for each commodity category.
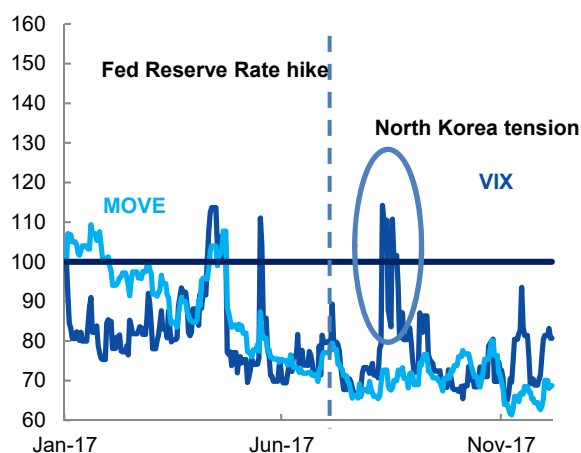
Source: Bloomberg; World Bank staff calculations

Despite positive global outlook, several downside risks remain

Although risks to the global outlook continue to be tilted to the downside, they are more balanced. The positive global environment is mainly due to the possibility of stronger-than-expected growth in the largest advanced economies and EMDEs[9] – reflecting, for instance, a more pronounced investment-led recovery in the United States and the Euro Area, or a larger rebound in large commodity exporters[10]. However, the uncertainty about economic policies in advanced countries, such as rising protectionism and nationalism from U.S. trade policy, could weaken the current recovery in global trade activity. Changes to U.S. tax laws could lead to capital outflows as U.S. corporations repatriate profits. Faster than expected balance sheet reductions of the U.S. Federal Reserve and any unexpected tightening of monetary policy could trigger volatility in the global financial market. Finally, steeper-than-expected slowdowns in major economies, including China, could affect global growth.

2. Investment and exports steer economic growth as private consumption shows tentative signs of recovery

GDP growth remained steady around 5 percent in Q3

The Indonesian economy registered its highest growth in five quarters in Q3 2017, but continued to hover around the 5.0 percent threshold. Real GDP growth came in at 5.1 percent yoy, slightly faster than 5.0 percent in Q2, but below consensus forecasts of 5.2 percent. Strong fixed investment growth and surging exports were the main drivers of growth, offsetting the drag from significant inventory destocking, which subtracted 1.3 percentage points of total growth (Figure 5). Government consumption also rebounded, partly due to low base effects when compared to Q3 2016. On the production side, industry, especially manufacturing, and services continued to drive growth, while growth in the agriculture sector decelerated.

Industrial and motor vehicle production climbed steadily

Consistent with the slight uptick in GDP growth, monthly production indicators displayed strong performance. Industrial production growth accelerated to an average of 5.5 percent in Q3 from 4.0 percent in Q2, the highest rate since Q4 2014 (Figure

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[9] Emerging markets and developing economies.
[10] World Bank (2018).

throughout the quarter

6). Motor vehicle production also rebounded an average of 11.1 percent after contracting 11.2 percent in Q2, although this was partly due to the low base resulting from the timing of Lebaran occurring in Q3 last year. Following a dip in July, the Nikkei/Markit Manufacturing Purchasing Managers' Index (PMI) remained in expansionary territory for the remainder of the quarter, indicating some improvement in manufacturing business conditions.

Figure 5: GDP growth picked up slightly as fixed investment and export growth accelerated
(contributions to growth yoy, percentage points)

Figure 6: Industrial and motor vehicle production recorded multi-month highs
(PMI index, LHS; growth yoy/3-mma yoy, percent; RHS)

Source: BPS; World Bank staff calculations

Source: Nikkei/Markit; BPS; World Bank staff calculations
Note: IPI growth in yoy terms; motor vehicle production growth in 3-month moving average (mma) yoy terms. Manufacturing PMI above 50 points indicates expansionary territory.
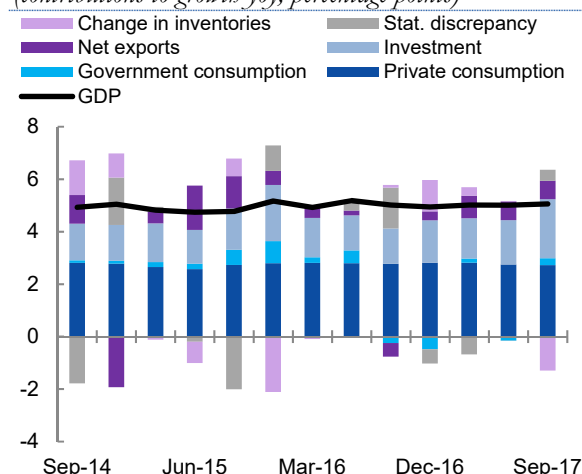
Fixed investment growth rose to a four-year high as machinery and equipment investments rebounded

Gross fixed capital formation (GFCF) growth accelerated for a second consecutive quarter to 7.1 percent yoy in Q3 from 5.3 percent in Q2[11] (Figure 7). This rate of growth – the highest seen since Q1 2013 – was driven by a strong turnaround in spending on machines and equipment, which rose by 15.2 percent after nearly six consecutive quarters of contractions, and an acceleration in other equipment investment. The pick-up in investment is despite weaker-than-expected credit growth[12], which suggests that investors partly utilized foreign sources of funding[13] and retained earnings to support increased investment. In line with the import-intensive nature of these investments, nominal capital goods imports rose by an average of 23.9 percent after contracting by 2.6 percent in Q2. The composition of these imports signaled investments in telecommunications, machinery for mining and agriculture industries, and public infrastructure[14]. Consistent with investments in infrastructure, nominal public capital expenditure rose by 12.9 percent over the quarter from 9.2 percent in Q2. Meanwhile, construction of buildings and structures remained the main driver of GFCF growth, in line with the strong uptick in sales of cement, which recorded growth rates at historic highs 25 percent on average (Figure 8). The sharp moderation of these high-frequency investment indicators in October, however, suggests that investment momentum may slow in Q4.

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[11] Revised downwards from 5.4 percent.
[12] See detailed discussion in Section 4.
[13] See detailed discussion about the increase in FDI flows in Section 5.
[14] Categories of capital goods imports that saw significant increases are telecommunications equipment, excavators, and ships and floating structures.
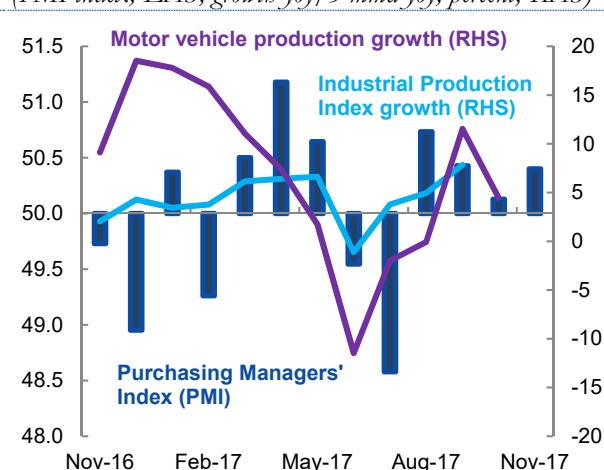
Private consumption growth showed tentative signs of recovery

Private consumption grew at 5.0 percent yoy for the fifth consecutive quarter, as household consumption growth remained stable at 4.9 percent. Given the high base from last year's Lebaran festivities, which occurred in Q3 2016, the stable yoy growth rate in Q3 this year actually suggests strengthening private consumption. Looking at quarter-to-quarter movements, private consumption did in fact pick up to 5.5 percent (qoq saar)[15] from 4.8 percent in Q2 (Box 1). This is consistent with several favorable trends: the further easing of inflationary pressures to 3.8 percent yoy from 4.3 percent in Q2, the relative stability of the Rupiah over the quarter, and robust labor markets, as the number of employed individuals grew by 3.2 percent in the year to August 2017[16].

Figure 7: Strong turnaround in machinery and equipment investments drove fixed capital formation
(contributions to growth yoy, percentage points)
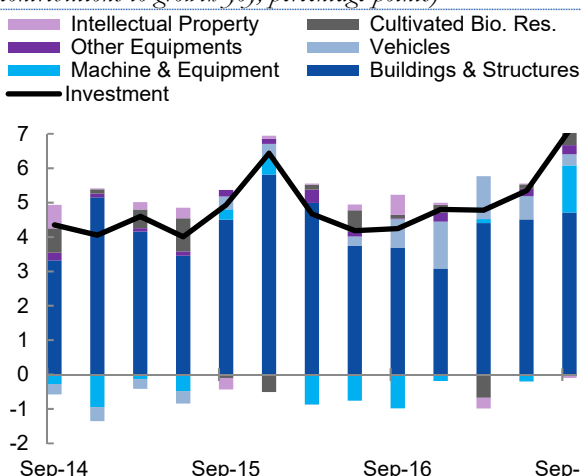
Source: BPS; World Bank staff calculations

Figure 8: Commercial vehicle and cement sales recorded historic growth rates
(3mma growth yoy, percent; LHS, RHS)
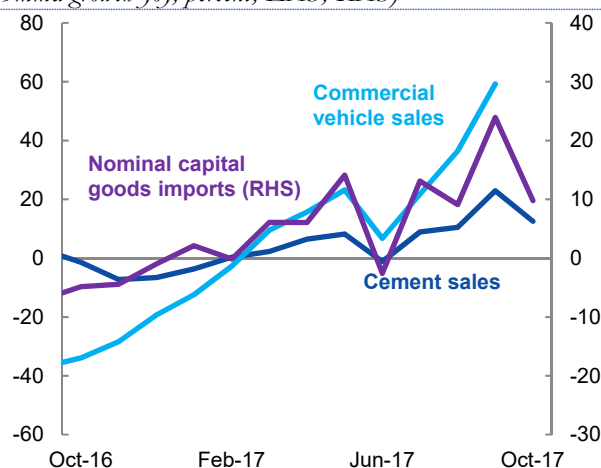
Source: BI; BPS; World Bank staff calculations

Monthly consumption indicators were mixed, but may not fully capture household consumption

Monthly consumption indicators presented a more mixed picture. On one hand, motorcycle sales jumped 17.9 percent on average in Q3 after three years of consecutive contractions, and passenger car sales also ticked up. On the other, retail sales growth slumped to 0.3 percent from 4.9 percent in Q2, and consumer confidence mostly remained unchanged, albeit at high levels (Figure 9). The apparent disconnect between stable private consumption and disappointing retail sales growth can be partially explained by the fact that Bank Indonesia's retail sales index only accounts for consumption of goods and modern retail, whereas the BPS surveys used to compute household consumption growth also capture consumption of services, which expanded at a faster pace compared to consumption of goods in Q3, and more traditional retail channels[17] (Box 1). These high-frequency consumption indicators remained subdued in October, as motorcycle sales decelerated and consumer confidence remained broadly unchanged.

Government consumption rebounded and

Real Government consumption growth rebounded to 3.5 percent yoy after contracting 1.9 percent in Q2. Overall, government consumption disbursements increased in nominal terms by 5.7 percent in Q3 from the previous year, compared

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[15] Quarter-on-quarter, seasonally adjusted and annualized rates. World Bank staff estimates using X12 seasonal adjustment.
[16] World Bank staff calculations from BPS press release of August 2017 SAKERNAS labor force survey.
[17] World Bank staff meeting with *Badan Pusat Statistik* (BPS), November 14, 2017.

contributed positively to growth

to 2.8 percent in Q2. The pickup was mostly due to the recovery in material spending, which increased by 7.8 percent in nominal terms (Figure 10). Strong social spending was also maintained for a second consecutive quarter, jumping 36.9 percent in nominal terms, but this was partly due to low base effects from Q3 2016. Personnel spending also advanced in nominal terms (0.4 percent) as bonuses were distributed to civil servants in July. Monthly budget realization data in October indicated that material and social spending continued to advance strongly; in level terms, however, social spending remains substantially below the 2014-15 average.

Figure 9: Passenger car and motorcycle sales rose strongly over Q3, but retail sales plateaued
(yoy, percent/ 3mma yoy, percent, LHS; index, points; RHS)
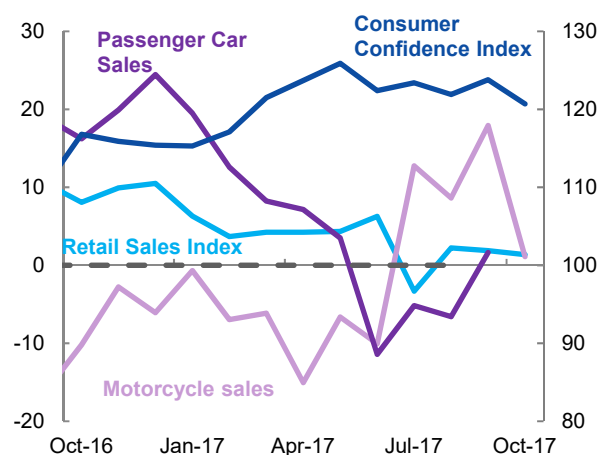
Source: BI; World Bank staff calculations
Note: Retail sales index growth in yoy terms; passenger and motorcycle sales measured in 3-month moving average (mma) percent yoy terms and seasonally adjusted. Consumer confidence index on right-hand side axis, measured in points.

Figure 10: Government consumption rebounded on increases in social and material spending
(contributions to nominal growth, percentage points)
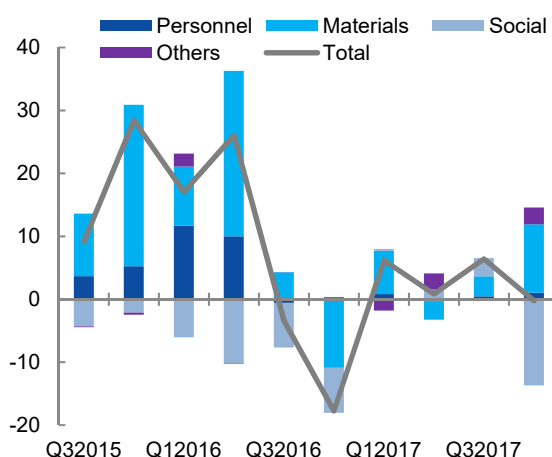
Source: Monthly budget realization data, Ministry of Finance; World Bank staff calculations
Note: Government consumption realization comprises Central Government spending on personnel, material, social, and other expenditure.

Figure 11: Total export growth surged as higher commodity prices supported exports of non-oil and gas goods
(contributions to real growth yoy, percentage points)
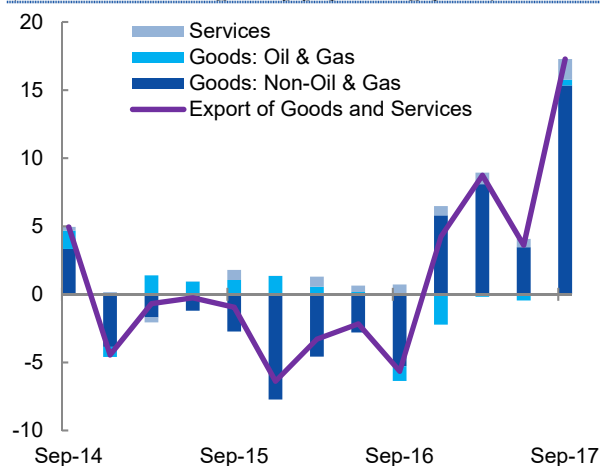
Source: BPS; World Bank staff calculations

Figure 12: Imports of non-oil and gas goods also led to double-digit import growth, consistent with growth in the manufacturing sector
(contributions to real growth yoy, percentage points)
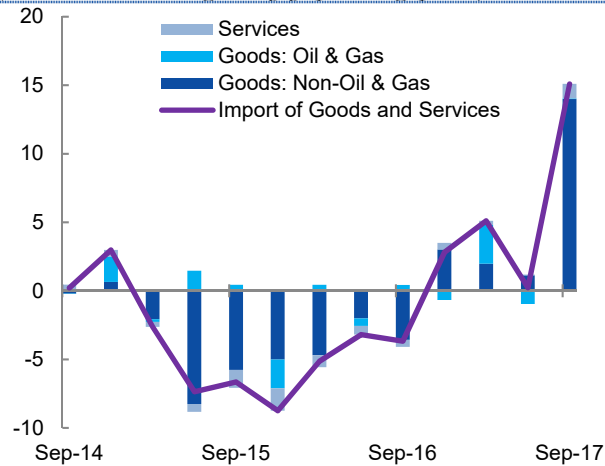
Source: BPS; World Bank staff calculations

Exports jumped due to a rebound in manufacturing, and as commodity exports remained robust…

Consistent with firming global trade and higher prices of Indonesia's key export commodities, exports surged in Q3. Both export and import volumes registered double-digit growth for the first time since 2012, increasing 17.3 percent yoy and 15.1 percent, respectively from 3.6 percent and 0.2 percent in Q2[18] (Figure 11 and Figure 12), leading the contribution of net exports to GDP growth to remain modestly positive. The rise in export volumes was mainly driven by a rebound in manufacturing exports (textiles, clothing, footwear, electricals, and other manufactures), while raw and processed commodity exports – especially coal, palm oil, and processed copper – remained robust[19]. The rise in import volumes was also driven by non-oil and gas goods, especially by capital goods and raw materials[20] which leaped by 24.3 and 23.2 percent in real terms, respectively.

...but the low value added of agriculture and mining suggests that export growth was partly met by destocking

On the production side, industry[21] and services continued to drive growth, accelerating 4.8 and 6.0 percent respectively from 3.9 and 5.2 percent in Q2 (Figure 13). The manufacturing sector provided the largest contribution to growth, expanding 4.8 percent up from 3.5 percent in Q2. The services sector also picked up, driven by trade, hotel and restaurant activity, as well as by transport and communications. Mining and agriculture sector

Figure 13: On the production side, manufacturing was the main driver of growth
(contributions to real growth yoy, percentage points)

Source: BPS; World Bank staff calculations

growth, on the other hand, moderated to 2.9 percent and 1.8 percent respectively, from 3.3 and 2.3 percent in Q2. The relatively low contribution of mining and agriculture to value added (0.4 and 0.2 percentage points respectively) indicates low production growth[22], suggesting that the pick-up in raw and processed commodity exports was driven by drawdowns in inventories rather than increases in production, which is consistent with the large negative contribution from inventories[23].

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[18] Export growth was revised upwards from 3.4 percent previously, while import growth was revised downwards from 0.5 percent in Q2.

[19] See detailed discussion in Section 6 on exports.

[20] Capital goods imports were driven by imports of automatic processing machines and telecommunication equipment and parts; raw materials imports were driven by increases in imports of vehicle motor parts and accessories, wheat and mixed grains and plastics.

[21] Industry comprises mining and quarrying, manufacturing, utilities and construction. Services comprises trade, hotels and restaurants, transportation and communication, financial and other services.

[22] For mining and commodities, output and value added tend to be very closely correlated.

[23] As mentioned above, the surge in export growth in Q3 was partly driven by larger exports of coal, refined copper, and palm oil, which are mining and agriculture outputs.

Box 1: Is private consumption recovering?

Private consumption is a key driver of Indonesia's economic performance. Accounting for 55 percent of Indonesia's economy, private consumption is a key driver of GDP growth. Despite a host of favorable conditions, such as a strong employment and wage gains, low inflation, a stable Rupiah, and lower borrowing costs, private consumption growth on a year-on-year (yoy) basis has been stubbornly flat at 5.0 percent for 8 out of the past 9 quarters[1]. In addition, retail sales, a widely-used monthly proxy indicator for private consumption, paints a more worrisome picture. Growth of real retail sales has slumped from an average of 11.0 percent in 2016, to 4.8 percent in H1 2017 and to a meagre 0.3 percent in Q3. This box provides a deeper analysis of private consumption growth, considering some factors that have contributed to its recent path, and the divergence between national accounts and monthly survey data for private consumption.

Private consumption was relatively weak in Q2, but there are indications it strengthened in Q3. With the shift in Lebaran from Q3 last year to Q2 this year, and the corresponding shift in private consumption associated with the festivities, an increase in the yoy growth in private

Figure 14: On a quarter-to-quarter basis, adjusted for seasonal fluctuations, private consumption strengthened in Q3
(percent)
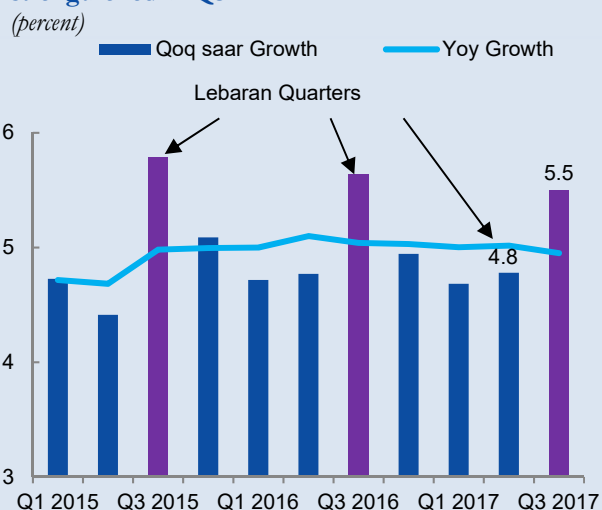
Source: Haver Analytics, CEIC, World Bank staff calculations
Notes: "Yoy" stands for "year-on-year"; "Qoq saar" stands for "quarter-on-quarter seasonally adjusted annualized rate" X12 ARIMA seasonal adjustment was employed.

consumption in Q2 would have been expected, along with a corresponding easing of consumption growth in Q3, due to a high base effect occurring in Q3 last year. However, private consumption growth on a yoy basis was instead steady in Q2 and Q3, implying weakness in Q2, and recovery in Q3. Using data statistically adjusted to correct for seasonal fluctuations, Figure 14 shows the strengthening of private consumption from 4.8 percent (qoq saar) in Q2 to 5.5 percent in Q3.

Figure 15: Monthly indicators that proxy for private consumption continue to show a diverging picture
(yoy, percent)
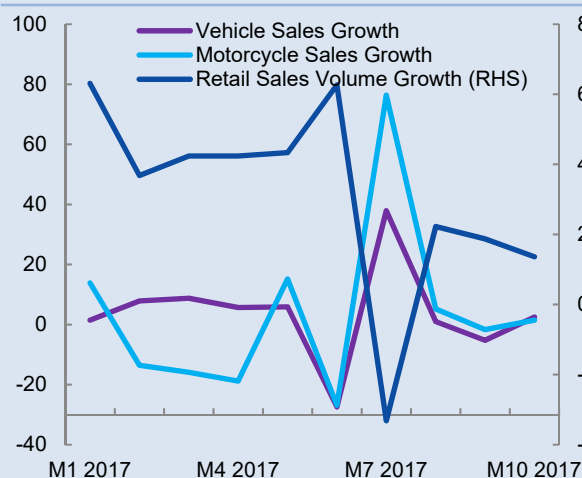
Source: Haver Analytics, CEIC, World Bank staff calculations

Figure 16: Consumer confidence indexes (CCI) hint at broadly unchanged consumer sentiment throughout the second half of 2017
(index)
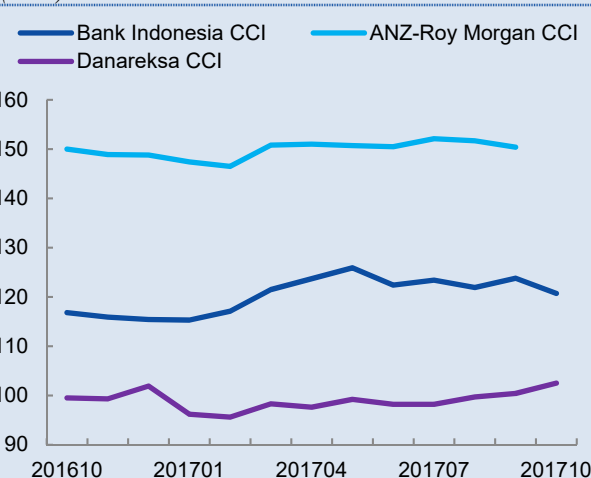
Source: Haver Analytics

As the transitory factors that contributed to the weakness in Q2 wane, consumption is bound to recover. The rationalization of subsidies to the 900VA category of non-poor consumers, which included 18.7 million[2] households, led to higher electricity tariffs for those households and reduced their purchasing power. In addition, the stricter enforcement of tax collections following the tax amnesty[3] and political uncertainty ahead of the Jakarta gubernatorial elections[4] weighed on the consumption of higher-income households, which account for a disproportionate share of

consumption[5]. In Q3, political uncertainty subsided, the impact of earlier energy price adjustments waned, and overall inflation eased. At the same time, the labor market remained robust, with strong employment and wage gains[6], the Rupiah remained stable, and borrowing costs continued to decline. Together, these factors support the view that consumption begun recovering in Q3, and should remain on a moderately upward path into Q4 and early 2018.

Monthly indicators that act as proxies for private consumption continue to present a mixed picture. Largely due to data issues surrounding the shift in Lebaran, retail, vehicle and motorcycle sales all exhibited volatility around the months of June and July (Figure 15). In the most recent months, motorcycle sales have recovered and are growing faster than in H1 2017. In contrast, vehicles sales, after the mid-year volatility, are growing roughly at par with that in the first half of the year, while retail sales growth have continued to ease. At the same time, consumer confidence indicators have been largely stable (Figure 16).

Monthly indicators do not adequately capture the growing consumption of services. A gradual shift in the pattern of private consumption has been occurring. On a year-on-year basis, consumption of services such as transport and communications, and health and education accelerated in Q3 from Q2. Meanwhile, consumption of food and beverages, and in clothing and other apparel slowed (Figure 17)[7]. Stronger consumption of services has therefore partially offset weakening consumption of some goods. Monthly indicators such as retail sales only capture consumption of some goods and do not capture consumption of services, which suggests they have become more imperfect proxies of overall private consumption.

Ecommerce is unlikely to be a significant driver of weaker private consumption numbers. There is a popular notion that the growing role of ecommerce in Indonesia could be a driver for the perceived weakness in private consumption, as conventional metrics may not adequately account for online transactions. While ecommerce has indeed been growing rapidly, the share of online transactions still remains very small, with recent estimates at 2.2 percent and under[8]. In addition, to the extent there is any bias resulting from ecommerce transactions, it would reinforce the greater accuracy of national accounts private consumption statistics, given that BPS estimates of consumption are based on household surveys, rather than surveys of retailers.

Figure 17: There has been a gradual shift toward consumption of services.
(contributions to growth, percentage points)

Source: Haver Analytics, World Bank staff calculations

Private consumption is expected to further strengthen on strong fundamentals. In summary, transitory factors dampened private consumption in Q2, but as these headwinds dissipated, consumption appears to have started recovering in Q3. Monthly indicators that serve as traditional proxies of private consumption have become more inadequate as they do not capture consumption of services, which have recently strengthened. Private consumption growth is expected to further recover as the underlying drivers all continue to support household purchasing power and bolster consumer sentiment.

[1] Private consumption growth was 5.1 percent yoy in Q2 2016.
[2] See World Bank (2017a).
[3] See https://www.indonesia-investments.com/id/news/todays-headlines/tax-compliance-in-indonesia-seen-rising-after-amnesty-program/item8301
[4] Two rounds of a gubernatorial election were held in Jakarta on 15 February and 19 April 2017 to elect the Governor of Jakarta to a five-year term.
[5] Based on Susenas estimates, the top 20 percent of household accounts for at least 47 percent of private consumption. Enhanced tax collection efforts would largely impact this group therefore have had weighed on private consumption in a non-trivial manner.
[6] See World Bank (2017b). In addition, the unemployment rate declined further in August, 2017.
[7] Consumption of services (health and education, transportation and communication) grew by 5.6 percent yoy on average in Q3, while consumption of goods grew by 3.7 percent on average.
[8] See Singapore Post (2014), OECD, UNCTAD and WTO (2016), Fiscal Policy Agency (2016).
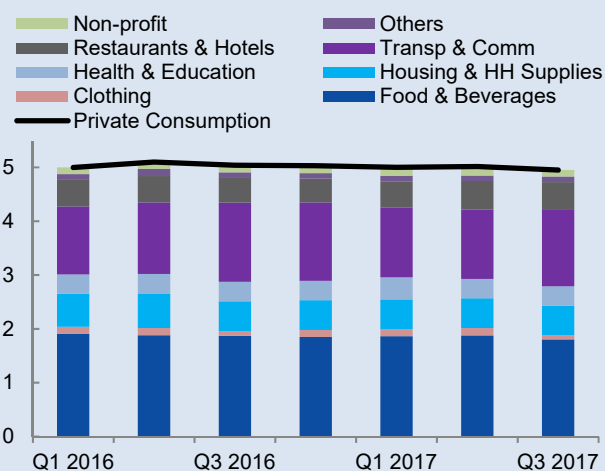
3. Inflationary pressures continued to ease in Q3 on the back of benign food and non-food prices

Inflationary pressures in Q3 continued to ease due to broad-based declines in food and non-food inflation…

Headline inflation decreased to an average of 3.8 percent yoy in Q3 2017 from an average of 4.3 percent in Q2. Except for the housing-utilities and education-recreation categories, benign prices in other non-food categories, as well as further easing in food prices, contributed to lower inflation in Q3 (Figure 18). Similarly, core inflation, which excludes volatile and administered prices, also edged down from an average of 3.2 percent in Q2 to the lowest recorded core inflation rate of 3.0 percent in Q3[24]. Inflation of administered components also eased in Q3 averaging 9.3 percent, down from 9.5 percent in Q2 as inflationary effects of electricity price hikes in H1 dissipated. Moreover, inflation of volatile goods fell to a quarterly record low, averaging at 0.9 percent in Q3.

Figure 18: Headline inflation eased in Q3 due to benign food and non-food prices...
(change yoy, percent)
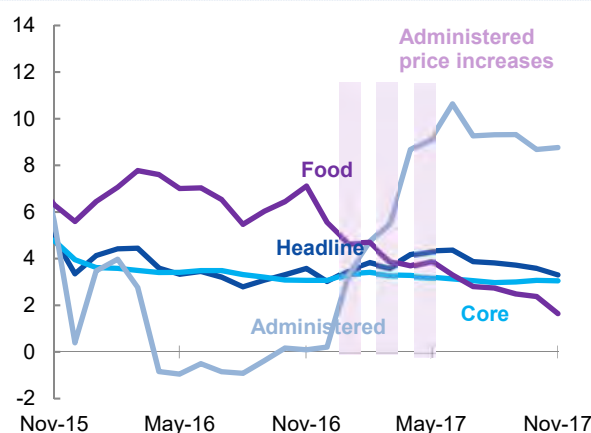
Figure 19: Prolonged low food inflation is expected to weigh down headline inflation forecast
(annual average change yoy, percent)
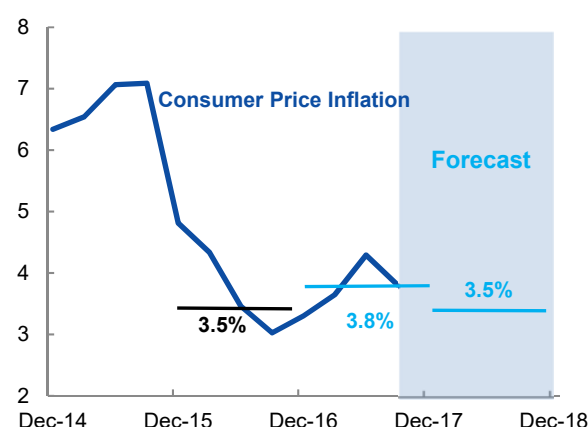
Source: BPS; World Bank staff calculations
Note: Food prices are a weighted average of the raw and processed food price components of CPI.

Source: BPS; World Bank staff calculations
Note: Food prices are a weighted average of the raw and processed food price components of CPI.

…with the exception of housing-utilities and education-recreation categories, which saw higher inflation

As both raw and prepared food inflation eased, overall food inflation fell from an average of 3.6 percent yoy in Q2 to 2.7 percent in Q3. Reaching the lowest levels since Q4 2003, raw food price inflation slumped to an average of 1.4 percent in Q3[25]. On the other hand, prices in the housing-utilities category edged up due to rapid increases in housing rental prices, and prices of home construction materials and services, household assistant wages, and electricity and water utilities. Meanwhile education-recreation inflation climbed due to the start of the new academic year in Q3 and higher tuition fees at all education levels.

Benign raw food prices over an extended period continued to cap

Headline inflation continued to ease in November to 3.3 percent yoy, the lowest for 2017. Raw food inflation recorded its lowest outcome in almost 14 years, contracting 0.5 percent, largely due to high-base effects from the same period last year when bad weather disrupted key food supplies, such as chilies. Moderating raw food prices over

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[24] On monthly basis, core inflation was 3.0 percent yoy in both August and September 2017, which is the lowest on record since the core consumer price index began in January 2003.

[25] This was less than half of the 2.9 percent in Q2 2017 and less than a quarter of the 7.1 percent seen in Q4 2016. Raw food inflation has declined for three consecutive quarters mainly due to favorable weather and government efforts to maintain food prices. See World Bank (2017c).

inflationary pressures in November

an extended period have capped the inflationary pressures originating from the volatile component[26], with volatile inflation contracting 1.2 percent in November, a monthly record low. Meanwhile, core inflation remained stable at 3.1 percent.

CPI inflation is estimated to average 3.8 percent in 2017 and ease to 3.5 percent in 2018

Considering the continued subdued food prices and the absence of further planned energy price hikes this year[27], consumer price inflation is expected to average 3.8 percent in 2017, easing further to 3.5 percent in 2018 (Figure 19). The baseline inflation forecast assumes marginal increases in crude oil prices and some inflationary effects of regional and presidential elections in 2018 and 2019. Risks to the inflation outlook are on the upside, and include adjustments to energy prices following market movements, La Nina associated grain shortages[28], and the depreciation of Rupiah, thereby leading to higher import prices.

4. Indonesian macro-financial conditions remained broadly stable in Q3

Demand for Indonesian assets declined as the Fed raised rates

In Q3, appetite for Indonesian assets was somewhat subdued. The Jakarta Composite Index (JCI) was flat, the Rupiah depreciated by 1.2 percent, and bond yields fell at a faster pace than Q2. In contrast, net capital inflows were quite strong in Q3 due to major inflows into Indonesia's technology and e-commerce sector. Modest inflationary pressures, a relatively stable Rupiah, and a relatively tepid GDP growth outcome in Q2 provided room for Bank Indonesia (BI) to cut its policy rate twice in Q3. Credit growth continued to be weaker than expected, causing the BI to lower its target for the year, from 10-12 percent to 8-10 percent.

Bank Indonesia began a new cycle of monetary policy easing in Q3…

BI cut its benchmark policy rate, the 7-day reverse repo, twice by 25 basis points during its monthly board meetings in August and September. Low inflation and a manageable current account deficit were cited as the main reasons for the cuts. Since the start of this year, lending rates for working capital and investments have fallen by 40 and 39 basis points, respectively. Lending rates for consumption have fallen by around 60 basis points (Figure 20).

… but credit growth remains sluggish

Despite monetary policy easing 200 bps over 2016 and 2017, credit growth remains sluggish, averaging below 8 percent in Q3. After peaking in May 2017, deposit growth has fallen to below 10 percent (Figure 21). The weaker than expected growth of credit is somewhat puzzling given that, as noted in section 2, investment growth has picked up significantly over the past few quarters. Moreover, BI has kept its counter-cyclical capital buffer (CCB)[29] at 0 percent since at least May this year. In a press release in May, BI noted that it would keep the CCB at 0 percent since credit growth was not "excessive", GDP growth was stable and there were no systemic risks to the economy. The current level of the CCB therefore should not be a hindrance to credit growth,

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[26] *Badan Pusat Statistik* (BPS) disaggregates CPI inflation into three components: core, administered, and volatile inflation. Core inflation tends to be persistent and is normally influenced by fundamental factors, while the administered component is affected by shocks associated with the government's pricing policy. The volatile component mainly comprises food components and tends to move due to foodstuff-related shocks such as crops, weather, or domestic and international food prices.

[27] The Ministry of Energy and Mineral Resources (ESDM) announced in late September its intention to maintain prices of kerosene, diesel, and gasoline RON 88 until the end of 2017.

[28] According to benchmark international weather models, there is a growing risk that the La Niña weather pattern will appear towards the end of 2017 and over 2018, which would disrupt the production of commodities, particularly grains, and pose upward risks to food prices. Should La Niña materialize, the prices of affected commodities are expected to rise in H1 2018.

[29] The CCB specifies the amount of capital that lending institutions have to set aside, over and above the amount set by typical regulatory frameworks like Basel, in case risks emerge in the banking system.

and in fact should be a stimulatory factor which makes the weaker than expected credit growth even more puzzling.

However, some factors can be identified as contributors. The somewhat sluggish performance of credit growth is, in part, due to an attempt by banks to manage the quality of assets on their books (see discussion below on non-performing loans). Credit growth in the wholesale and retail trade, repair of motor vehicles and motorcycles sector – which accounts for just under 30 percent of total industrial loans – fell to its lowest since records began in 2002. Average growth of loans extended to the manufacturing sector – whose share of total industrial loans is around 25 percent – is below the average growth rates seen last year. In contrast, credit growth in the manufacturing sector picked up in Q3 and is, on average, higher than growth rates recorded in the first half of 2017.

Figure 20: Monetary policy easing on hold for now after easing in August and September
(growth, yoy percent)
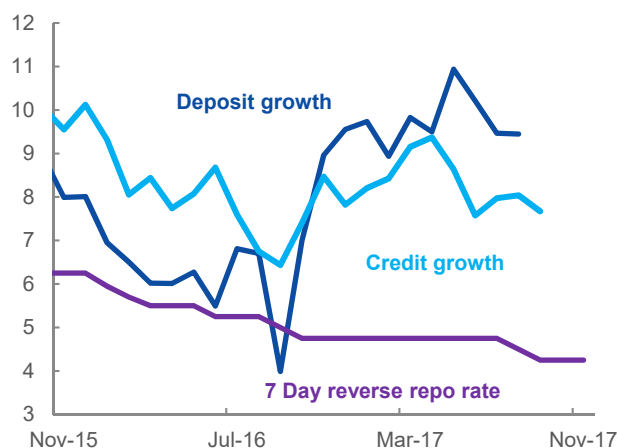
Source: CEIC, World Bank staff calculations

Figure 21: Investment continued to pick up after all the monetary policy easing
(percent)
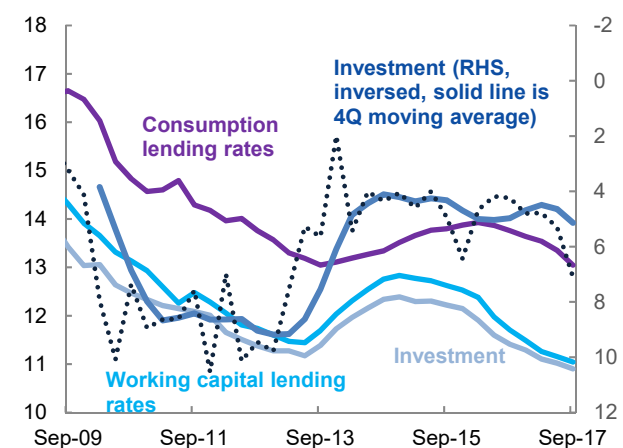
Source: CEIC; World Bank staff calculations

Banking system remained broadly healthy in Q3

Two key indicators for banking system soundness – non-performing loans (NPLs) and the capital adequacy ratio – continue to indicate that, overall, the Indonesian banking system remains healthy (Figure 22). NPLs have plateaued at around the 3 percent mark since the start of this year; however, sector specific concerns remain. For example, while overall NPLs are hovering around 3 percent, NPLs in the hotel industry are above 4 percent[30].

Figure 22: Banking system remains broadly healthy
(percent)
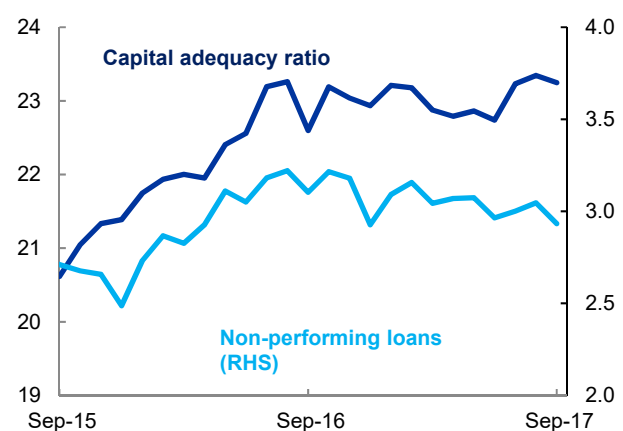
Source: CEIC; World Bank staff calculations

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[30] Indonesia-Investments (November 13, 2017).

After remaining flat in Q2, the Rupiah dropped a little in Q3

For the first time in almost a year, the Rupiah experienced some volatility as the unexpected BI interest rate cut in August and forward guidance given by the U.S. Federal Reserve affected global financial markets (Figure 23). After being relatively stable in Q2, the Rupiah fell 1.2 percent over Q3, reaching just under IDR 13,500, the lowest since the U.S. presidential elections last year. The dip was partly due to the U.S. Federal Reserve's reiteration of its commitment to reduce the size of its balance sheet beginning in October 2017. Other emerging market currencies were also affected by global economic and geopolitical developments and depreciated notably (see the JP Morgan EMCI in Figure 23) in Q3. In real terms, the Rupiah has depreciated by 5 percent since the start of the year (Figure 24). Relatively subdued total portfolio inflows in Q3 also placed downward pressure on the currency. Foreigners pulled out of Indonesian equities, but this was offset by higher demand for Indonesian debt. The Rupiah continued to see pressure in the first half of Q4, sliding above IDR 13,600, a 14-month low in late October. However, to place things in perspective, the Rupiah remains, after the Indian Rupee, one of the most appreciated Asian countries over the past few years (Figure 25).

Figure 23: In Q3, the Rupiah depreciated in nominal terms …
(index, January 3 2017 = 100)
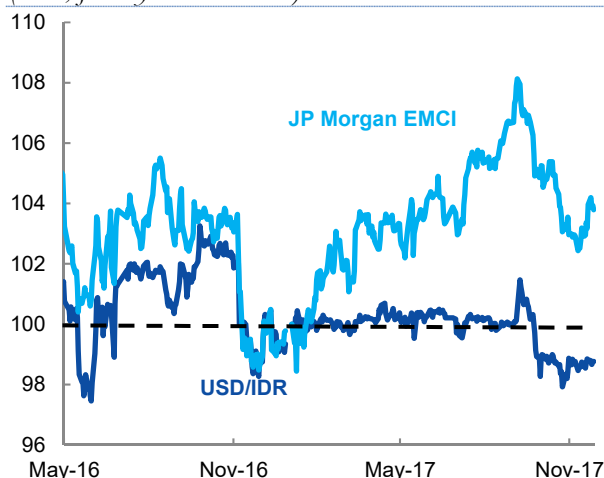
Source: CEIC; JP Morgan; World Bank staff calculations
Note: Downward movement represents a depreciation.

Figure 24: …and in real terms…
(year-to-date change, percent)
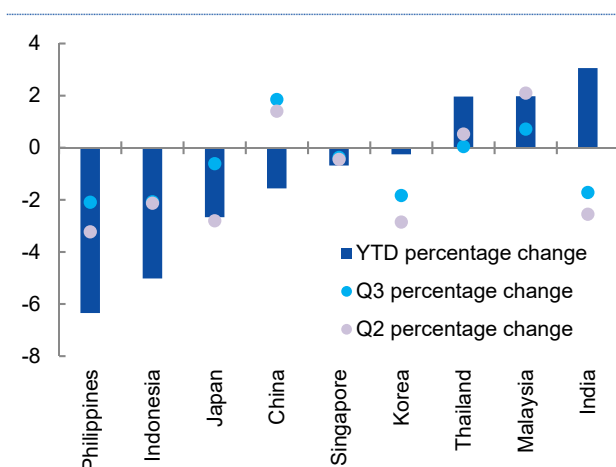
Source: BIS Real Effective Exchange Rate Index, CPI Based (2010=100)
Note: Downward movement represents a depreciation.

Figure 25: …but it remains appreciated compared to many regional peers over a longer time period
(index, Jan 2014 = 100)
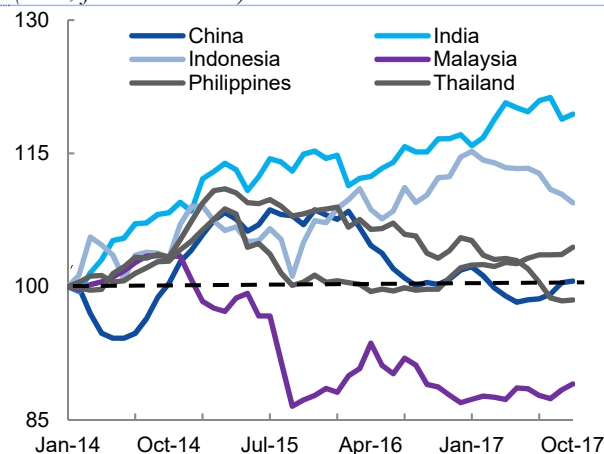
Source: BIS Real Effective Exchange Rate Index, CPI Based (2010=100)
Note: Downward movement represents a depreciation.

Mining shares picked up, reflecting improved commodity prices and offsetting a decline in infrastructure stocks…

After rising 4 percent in Q2, the JCI was flat in Q3, as domestic appetite for Indonesian equities offset the foreign sell-off. Net foreign inflows into the Jakarta Composite Index (JCI) have been negative since June this year. Q3 saw the largest net outflows – around USD 2.1 billion – from the JCI in at least four years (Figure 26). Among the sub-indices, mining saw a temporary surge (Figure 27). The pickup in commodity exports and prices over the quarter supported the gains in the mining sub-index for most of Q3. Since Q3, the JCI has risen 0.6 percent. Disappointingly, the infrastructure sub-index lost almost 7 percent after remaining flat in Q3. In year-to-date terms, the JCI is up almost 13 percent with the finance sector leading the gains of almost 30 percent. At the end of October, the JCI closed above 6000 for the first time in history, reflecting the continued attractiveness of Indonesian financial assets to both domestic and foreign investors.

Figure 26: Foreign investors sold off Indonesian equities
(USD billion)

Figure 27: The JCI was flat in Q3 but picked up a little in Q4
(index, July 1 2017 = 100)
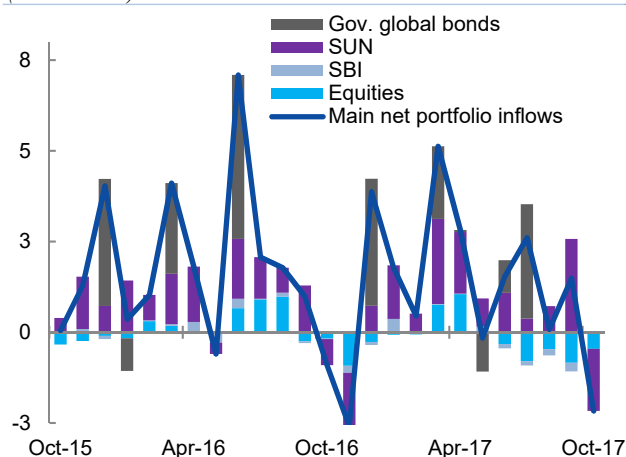
Source: The Institute of International Finance (IIF) database; World Bank Staff calculations
Note: Sertifikat Bank Indonesia (SBI), Surat Utang Negara (SUN)
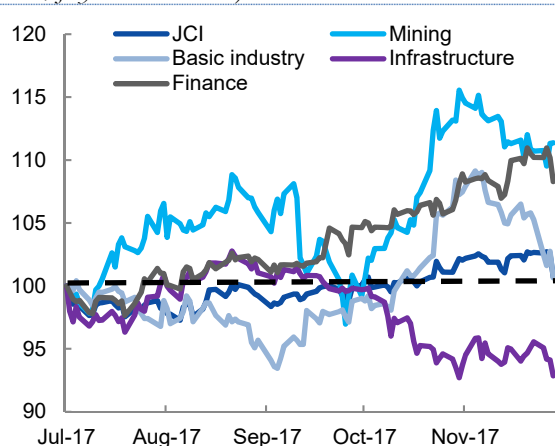
Source: BI, CEIC; World Bank Staff calculations

…while bond yields fell to a 4-year low in Q3

Q3 saw the same overall trend for 2017 with investors flocking to Indonesian bonds. Net foreign purchases of Ministry of Finance Surat Utang Negara (SUN) bonds in Q3 was a little higher than that seen in Q2. On average, and across all tenors, bond yields fell by around 47 basis points compared to an average fall of around 20 basis points in Q2. Towards the end of Q3, the yields on 10-year bonds fell to a four-year low of 6.5 percent before

Figure 28: Bond yields demonstrated some volatility
(percent)
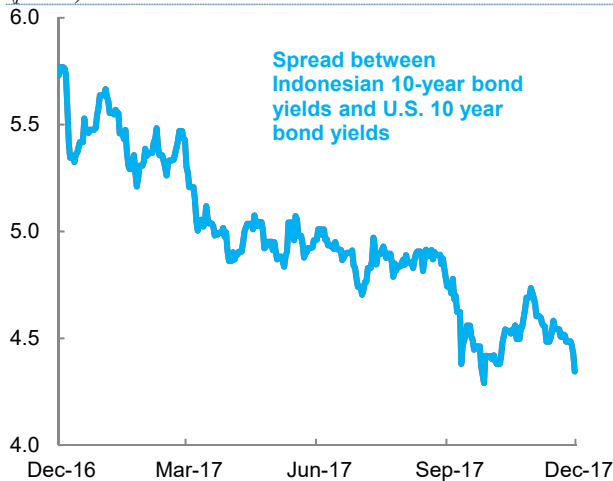
Source: CEIC, World Bank staff calculations

ticking upwards again in line with higher U.S. Treasury yields. The spread between Indonesian and US Treasury yields narrowed in Q3 before experiencing a reversal. Thus far, in Q4, the spread remains where it was at the end of Q3 (Figure 28). The high demand for Indonesian bonds also saw foreign ownership rise to a record of just under 41 percent before falling a little to 39 percent.

5. Commodity prices rallied in Q3

Prices of Indonesia's key commodities generally increased in Q3

Prices for most of Indonesia's key export commodities, notably crude oil, crude palm oil (CPO), rubber, coal and base metals generally rose in Q3. The notable exception is the price of LNG, which has been broadly flat since May this year. Coal prices leaped 38 percent yoy in Q3, reaching a 10-month high in September due to China's safety- and environmentally-motivated measures to cut coal production[31]. Crude oil prices jumped 12 percent to an average of USD 50.2 per barrel in Q3, slightly stronger than 10 percent growth

Figure 29: Global prices for Indonesia's six key export commodities have been on the rise in Q3.
(index January 2016 = 100)
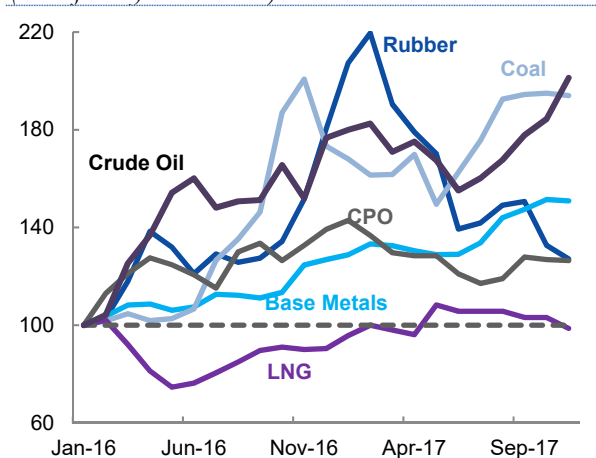
Source: World Bank Pink Sheet; CEIC; World Bank staff calculations
Note: LNG stands for Liquefied Natural Gas and CPO stands for Crude Palm Oil

booked in Q2, on declining inventories due to strong global demand, improved compliance among OPEC and non-OPEC producers with the agreement to restrict production, and stabilizing U.S. shale oil production[32, 33]. Even if they are broadly flat qoq, prices of liquefied natural gas (LNG) in Asia, which are partly linked to oil, rose by 23 percent yoy, extending the 37 percent gain in Q2. Metals prices surged 27 percent over the quarter to a 37-month high in September, caused by strong demand, particularly from China's property, infrastructure, and manufacturing sectors, and supply constraints due to the curtailing of excess capacity by the Chinese authorities. Palm oil prices, in contrast, bucked the trend by declining 4 percent in Q3, after being flat in Q2, on the back of strong supplies in Malaysia and Indonesia.

With the exception of rubber, prices of these key commodities continued to strengthen in October, with a number of them rising to multi-month and even multi-year highs. Metal prices extended the Q3 rally and climbed to the highest in 38 months. Similarly, oil prices reached a 28-month peak and coal prices saw a 11-month pinnacle in October (Figure 29).

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[31] The government of China announced the start of a new round of safety inspections across industries in late August, following a coal mine accident in Shanxi province in which four lives were lost.
[32] In November 2016, OPEC members agreed to reduce its combined oil output by 1.2 million bpd in order to shrink global stockpiles and balance an oversupplied market.
[33] The forecast price of oil reflects equally weighted three main oil benchmarks that include Brent (38° API), Dubai Fateh (32° API), and West Texas Intermediate (WTI, 40° API).

Indonesia's key commodities' ToT is expected to end 2017 at a considerably higher level than 2016, before declining in 2018

The World Bank projects that prices of rubber, crude oil, LNG and palm oil will rise in 2018, while coal and base metal prices will ease [34]. Oil prices are forecast to rise to USD 58/bbl in 2018 from USD 53/bbl in 2017, on strong demand and continued restraint in OPEC and non-OPEC production.[35] Coal prices are expected to retreat to USD 70/mt in 2018 from USD 85/mt in 2017 following an advance of nearly 30 percent in 2017, as demand slows, especially in China where an environmentally-friendly initiative is underway to reduce coal consumption[36] (Figure 30).

As Indonesia is a net exporter of coal and a net importer of oil, the expected movements of coal and oil prices imply a significant swing in the country's terms-of-trade (ToT)[37]. Given the 2017 YTD average prices of the six commodities are higher than those in 2016 (Figure 30), the Net-Trade Weighted Price Index for 2017 is expected to be considerably higher than in 2016. However, in line with price forecasts, the 2018 Index is projected to be lower than that in 2017 and 2016 (Figure 31)[38].

Figure 30: Crude oil prices are forecast to rise for 2018, while coal prices are expected to fall
(index 2015=100)

Figure 31: The net trade-weighted price index indicates a positive commodities terms-of-trade shock for Indonesia since July 2016
(index 2015=100)
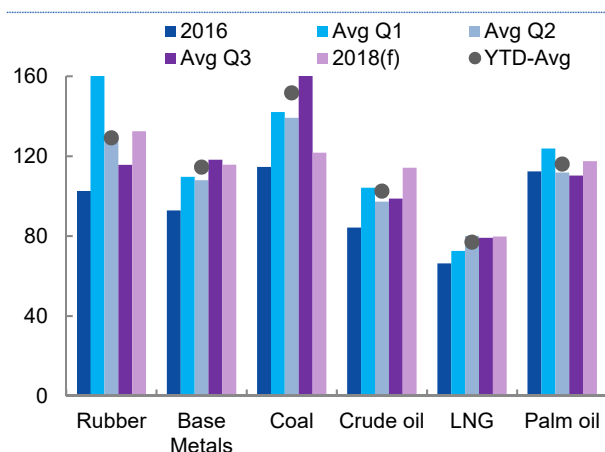
Source: World Bank (2017d); World Bank staff calculations
Note: f stands for forecast
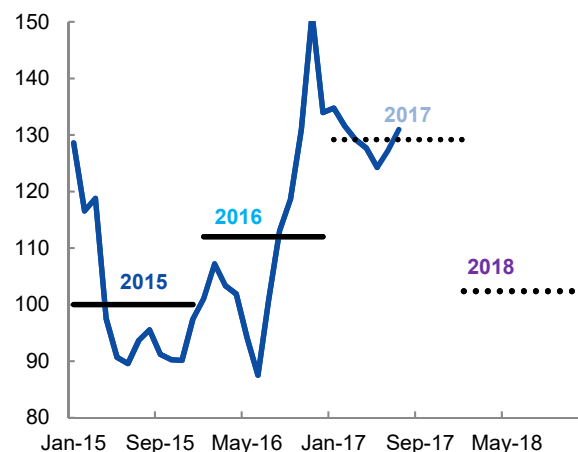
Source: BPS; World Bank; World Bank staff calculations
Note: Net trade-weighted price index is constructed over Indonesia's six major export commodities (rubber, base metals, coal, oil, LNG, and palm oil)

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[34] World Bank Commodity Market Outlook (October, 2017).

[35] On December 1, 2017, Saudi Arabia and Russia, together responsible for a fifth of global oil supplies, as well as other 22 oil producing countries within and outside OPEC have agreed to reduce global oil supply by 1.8 million barrel per day in 2018. Further substantial risks to the forecast are contributed by volatile supply from politically-stressed oil producers such as Iraq, Libya, Nigeria, and Venezuela. On the other hand, efficiency gains among U.S. shale producers could boost global oil supplies.

[36] Further upside and downside risk are discussed in detail and can be found in the latest World Bank Commodity Market Outlook, available at http://www.worldbank.org/en/research/commodity-markets. Readers could also refer to the 2017 World Energy Outlook (IEA, 2017) for scenarios of energy demand and supply in the future.

[37] Terms of trade (TOT) refers to the relative price of imports in terms of exports and is defined as the ratio of export prices to import prices. It can be interpreted as the amount of import goods an economy can purchase per unit of export goods

[38] The Net Trade-Commodity Price Index (NTI) is defined as: $NTI_t = \frac{Weight_{i,p} \, xPrice_{i,t}}{Price_{i,t}}$ where

$Weight_{i,p} = \frac{(E_{i,t})-(I_{i,t})}{\Sigma(E_{N,t})- \Sigma I_{N,t}}$ and i= commodity type; t= month; p=period cycle (ex. 5 year average); N = number of commodities; T= base year; E=value of export; I=value of import

6. The current account deficit narrowed as the trade surplus widened

The BOP posted a sixth consecutive quarterly surplus in Q3 2017, as the current account deficit narrowed and the financial account surplus doubled

Posting a surplus for the sixth consecutive quarter, Indonesia's balance of payments (BOP) posted the largest surplus thus far this year of USD 5.4 billion (2.0 percent of GDP) in Q3, up from USD 0.7 billion (0.3 percent of GDP) in Q2 (Table 2). Underlying the wider BOP surplus was a narrower current account deficit with solid export momentum, despite a simultaneous pickup in import demand. At the same time, the capital and financial account surplus nearly doubled to USD 10.4 billion driven by larger FDI and fewer purchases of overseas assets by Indonesian investors. Accordingly, international reserves reached USD 129.4 billion at the end of Q3, up USD 6.3 billion from the end of Q2, and sufficient to finance government external debt repayments and imports for 8.6 months.

Table 2: Indonesia's Balance of Payments (BOP)
(USD billion unless otherwise indicated)

	Q3-2016	Q4-2016	Q1-2017	Q2-2017	Q3-2017
Overall Balance of Payments	5.7	4.5	4.5	0.7	5.4
As percent of GDP	*2.3*	*1.9*	*1.9*	*0.3*	*2.0*
Current Account	(5.1)	(1.8)	(2.3)	(4.8)	(4.3)
As percent of GDP	*(2.1)*	*(0.7)*	*(1.0)*	*(1.9)*	*(1.7)*
Goods trade balance	3.9	5.1	5.6	4.8	5.3
Services trade balance	(1.6)	(1.9)	(1.2)	(2.2)	(2.2)
Income	(7.4)	(5.1)	(6.8)	(7.5)	(7.4)
Capital and Financial Accounts	9.9	7.7	7.1	5.9	10.4
As percent of GDP	*4.1*	*3.2*	*3.0*	*2.3*	*4.0*
Direct Investment	6.6	3.5	2.8	4.6	6.8
Portfolio Investment	6.6	(0.3)	6.6	8.1	4.1
Other Investment	(3.2)	4.4	(2.1)	(7.1)	(0.4)

Source: BI; World Bank staff calculations

The current account deficit narrowed on a higher trade surplus and lower income deficit

The current account deficit narrowed in Q3, to an annualized 1.7 percent of GDP from 1.9 percent of GDP in Q2, driven by a wider goods trade surplus and slight improvement in the income deficit. The increase in goods trade was driven by rising exports, both in value and volume, surpassing imports that also increased with growing domestic demand. Higher commodity prices as well as stronger demand from Indonesia's trading partners for manufactured goods added support to the export momentum. The improvement in the income account deficit, on the other hand, was largely influenced by a seasonal pattern of lower dividend payments as well as lower interest payments on government's debt. The services trade deficit remained steady.

Goods trade saw a larger surplus as manufacturing exports rebounded and commodity-related exports remained strong

On the back of firmer prices of commodities and stronger demand from trading partners, the goods trade surplus in Q3 2017 was USD 5.3 billion or 2 percent of GDP, broadly similar to the share in Q2. Goods exports grew 24.4 percent yoy in Q3, much higher than the 8.0 percent climb in Q2, due to a combination of i) low base effects from fewer working days last year as Idul Fitri occurred in Q3 2016; ii) a surge in manufacturing exports, and iii) higher oil and gas exports, despite lower domestic production[39]. Manufacturing exports – textiles, clothing, footwear, electricals, and other manufactures – grew 19.3 percent in Q3 after contracting 4.5 percent in Q2, accounting for 40 percent of total export growth. Raw and processed commodity exports remained strong, accounting for around half of export growth, in line with

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[39] This is in contrast to Q2 where most of the domestic oil production was consumed domestically. Oil lifting rate in Q1 2017, Q2 2017, and Q3 2017 were recorded at 0.79 million barrels per day (mbpd), 0.82 mbpd and 0.79 mbpd, respectively.

higher prices of energy commodities and improved global demand. In particular, palm oil and coal exports saw strong gains of 45 percent yoy each (Figure 32). Exports to China and the United States were prominent, recording nearly 50 percent and 20 percent yoy growth, respectively, signaling that Indonesia is also benefiting to some extent from the improved global demand observed by other exporters in East Asia.

Figure 32: The surge in total goods exports was driven mainly by raw and processed commodities, but manufacturing also performed strongly
(contributions to growth, percentage points)
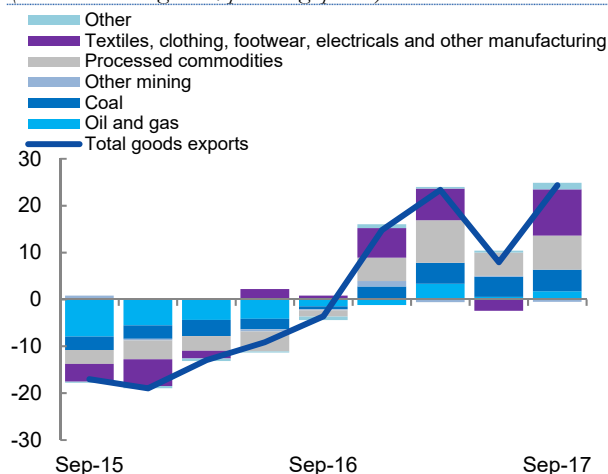
Source: CEIC and BI; World Bank staff calculations
Note: Other manufacturing includes machinery, vehicles and vehicle parts, and other processed goods. Processed commodities comprise palm oil, rubber, base metals, and wood. Other mining mainly refers to copper.

Figure 33: Surge of imports of raw materials and capital goods contributed to a jump in total goods imports
(contributions to growth, percentage points)
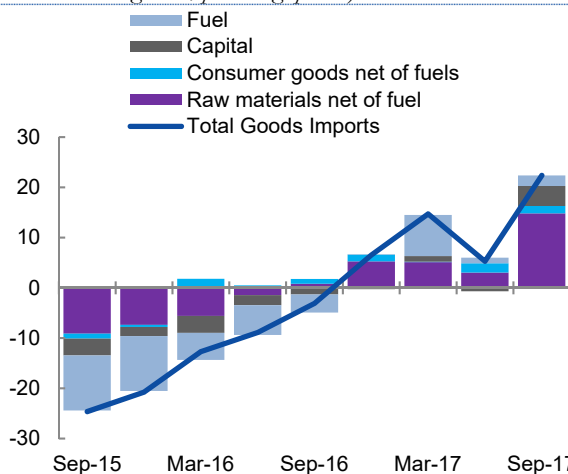
Source: CEIC and BI; World Bank staff calculations

Imports of capital goods rose in Q3

Growth of goods imports jumped to 23.0 percent, higher than the 5.5 percent rise in Q2, with all major categories of imports contributing to the growth. Notably, growth of raw material imports surged 23.2 percent in Q3 from 5.0 percent in Q2. Reaching the highest since Q2 2012, growth of capital goods imports hiked from a contraction of 4.4 percent in Q2 to 24.3 percent in Q3, largely due to higher imports of data processing machines, telecommunication devices, building and construction machineries, both in nominal and real terms (Figure 33)[40]. Nearly half of the imports came from China, Japan, Singapore and Thailand.

Q3 saw an increase in services exports as a record number of tourists visited Indonesia

On the services side, travel services (tourism) exports (the largest component of services exports) increased from USD 2.8 billion in Q2 2017 to USD 3.4 billion in Q3. Services exports grew just under 9 percent in Q3 compared to just over 5 percent in Q2. This outcome was in line with the increase – 3.5 million visitors in Q3 compared to 2.8 million in Q2 – in the number of foreign tourists visiting Indonesia. The transportation category and Indonesian travelers abroad were the main drivers of the surge in services imports growth to 15 percent in Q3 compared to just under 1.0 percent in Q2.

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[40] Bank Indonesia (2017).

The financial account surplus almost doubled in Q3 compared to Q2, partly supported by strong FDI

The capital and financial account surplus widened in Q3 to 4 percent of GDP, from 2.3 percent in Q2. This outcome was driven by strong inflows, particularly in the form of foreign direct investment (FDI). Net FDI continued the upward momentum seen in Q2 and recorded the largest net inflow in more than seven years in Q3. The strong outcome in Q3 was driven by flows into the technology sector with high profile capital flows into large Indonesian startup firms. The manufacturing sector again saw the largest positive inflows, with FDI inflows totaling around USD 2.9 billion, around 37 percent of total FDI in Q3 (Figure 34). The wholesale and retail trade, vehicle repair, and household goods sector also saw strong inflows – equivalent to 29 percent of total FDI in Q3. The mining sector saw a third consecutive quarter of net outflows.

Figure 34: Net FDI inflows surged again in Q3 2017
(USD billion)

Source: CEIC and BI; World Bank staff calculations
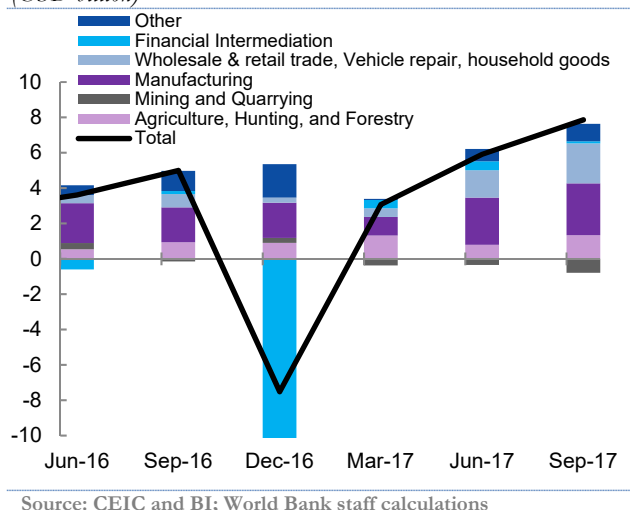
Portfolio flows recorded lower inflows in Q3 compared to Q2 due mainly to foreign investors pulling out of Indonesian equities. The other investment category, which saw near record level outflows in Q2, recorded only marginal outflows in Q3 as domestic investors scaled back purchases of overseas assets.

7. Improved revenue collection supported spending in 2017, but prudent fiscal management remains crucial in 2018

In 2017, higher revenue collections supported spending

2017 brought continued improvement in fiscal management. January-November saw stronger revenue collections, which supported higher Government expenditures and allowed the Government to respond to the perceived weakness of H1 2017 with a mild fiscal stimulus, increasing expenditures in contrast to 2016's cuts. Strong performance of the value-added tax (VAT) was particularly notable given flat private consumption growth (Box 2), reflecting both higher commodity prices and improvements in compliance management. This enabled the Government to increase its material, social, and capital spending compared to last year. Going forward, the 2018 Budget sets challenging but achievable tax revenue targets for non-commodity related revenue streams, but broadly reflects continuity in the Government's priorities on social and infrastructure spending. At 2.2 percent of GDP, the 2018 fiscal deficit target is lower than in previous years, providing increased fiscal space in the short term. However, in the medium term, fiscal space remains limited by a relatively low tax-to-GDP ratio. Prudent fiscal management and continued fiscal reforms thus remain paramount, particularly in the lead up to regional and Presidential elections in 2018 and 2019.

O&G-related revenues and VAT drove strong 2017 collections

As of end-November, total revenues collection grew 11.3 percent yoy in nominal terms, excluding revenues collected in the Tax Amnesty program. Oil and gas (O&G) directly related revenues[41] and VAT made the largest contributions to this growth, with 4.1 and 4.2 percentage points, respectively (Figure 35). Revenue from excises, which fell in 2016, rebounded, contributing 0.3 percentage points to total growth.

Figure 35: O&G-related revenues and VAT drove strong 2017 growth
(contributions to growth, January-November; percentage point)
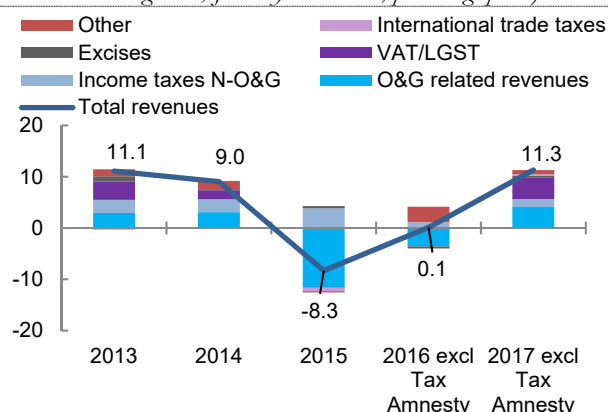
Source: Ministry of Finance; World Bank staff calculations
Note: O&G stands for oil and gas; VAT/LGST stands for value-added taxes/luxury goods sales taxes; N-O&G stands for non-oil and gas; "other" includes property taxes, other tax revenues, and other non-tax revenues (including profits of public enterprises and revenues from public service agencies)

Expenditure outturns continue to reflect improved quality of spending

On the expenditure side, the Government disbursed 82 percent of the 2017 Revised Budget or IDR 1,749 trillion as of end-November. In nominal terms, total Government expenditures grew 6.9 percent yoy[42] over January to November, faster than 5.7 percent in the same period last year. This growth broadly reflected improved quality of spending: material and capital expenditures rose by 9.6 and 13.2 percent respectively, while social spending increased by 24.3 percent in nominal terms (Figure 37). The latter reflects the expansion of the Family Hope welfare program *(Program Keluarga Harapan, PKH)* from 3.5 million to 6 million families. Personnel expenditures were contained, growing at 1.8 percent compared to 10.3 percent last year, while subsidy spending continued to decline due to electricity tariff hikes in H1 this year.

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[41] This is defined as the sum of O&G income tax and O&G non-tax revenue (NTR). See Box 4 for analysis of the broader relationship between revenues and oil prices.
[42] All yoy growth figures in this section are in nominal terms, unless stated otherwise.

Box 2: How do trends in consumption and VAT growth relate in Indonesia?

The relationship between value-added tax (VAT) and its base, private consumption, is expected to be tight: when consumption grows, or falls, VAT revenues ought to also grow, or fall. Yet, this hypothesized relationship does not hold so simply in Indonesia (Figure 36).

Figure 36 displays the correlation between the growth rate of private consumption and VAT collections. It shows that the correlation is volatile, with no systematic trend. In some periods, such as Q2 2013 – Q3 2015, the correlation was above 0.5, implying that the growth rate of VAT and consumption were largely moving in the same direction. However, in other periods, such as Q4 2005 – Q3 2007, the correlation was negative, suggesting that consumption and VAT growth rates moved in opposite directions. It also does not appear from the figure that the relationship has become more or less correlated over time.

Figure 36: The correlation between private consumption and VAT has weakened since 2014
(correlation between VAT and private consumption yoy growth, 8-quarter moving window)

Source: Ministry of Finance and World Bank staff calculations
Notes: Private Consumption is using current price.

Given the apparent mechanical link between VAT and consumption, what may explain this volatile relationship? Five hypotheses can be put forward:

1) **Link with oil.** The impact of crude oil prices on import VAT, which accounts for approximately a third of total VAT, is far more significant than that of private consumption[1].
2) **Taxpayer filing times.** VAT regulations gives different types of taxpayers some flexibility as to when to file their VAT liabilities, with filing required in the same month, a month after, or within one quarter of the timing of the consumption activity. Moreover, some taxpayers delay their filings beyond what regulations allow.
3) **Administrative capacity.** The administering of VAT refunds by the Directorate General of Taxes (DGT) is often delayed, at times by as long as one year. This delay is in part due to the policy of 100 percent audits of VAT refund requests.
4) **Exemptions policy.** High number of VAT exemptions result in distortions in the way VAT impacts on consumption and in increased opportunities for evasion.
5) **VAT threshold policy change.** Starting January 2014, the Government revised the VAT registration threshold from IDR 600 million to IDR 4.8 billion of gross-turnover. According to this policy, mandatory registration is required only for enterprises with gross-turnover above the threshold; for those below this threshold, it is voluntary. Compared to international standards, this threshold relative to real GDP per capita is the highest in the world. Because of the change, much business activity and private consumption take place without being captured in the VAT system.

While further research is needed to better understand this issue and identify which of these hypotheses account for the weak relationship between VAT and consumption, this preliminary analysis suggests that significant caution is warranted in associating VAT trends with consumption growth.

[1] See Box 4 for discussion of the correlation between crude oil prices and VAT.
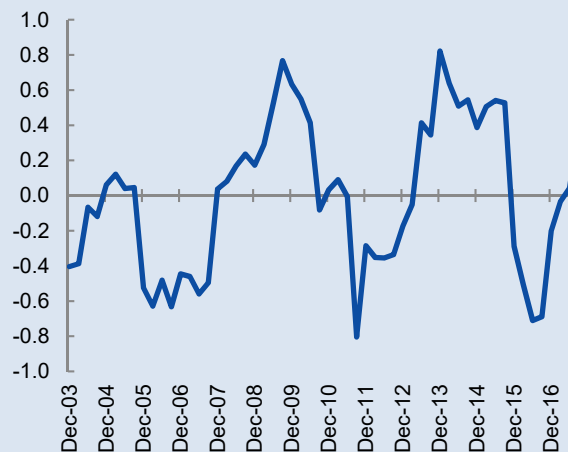
Execution of material, capital, and social budgets have improved

Comparing actual expenditures to the Revised Budget, the speed of disbursement of material, capital, and social budget allocations also appears to have improved. As of end-November, the Government had disbursed 64 percent of the budget for capital expenditures and over 90 percent of the social spending envelope (Figure 38). The pace of realized capital expenditures remains slow due to procurement processes, but has improved compared to previous years. The disbursement of non-energy subsidies (food, fertilizer, seeds, credit interest etc.) slowed this year due to administrative challenges.

Figure 37: Ongoing shift in spending from personnel and energy subsidies to material, capital, and social
(actual January-November spending growth yoy, percent)
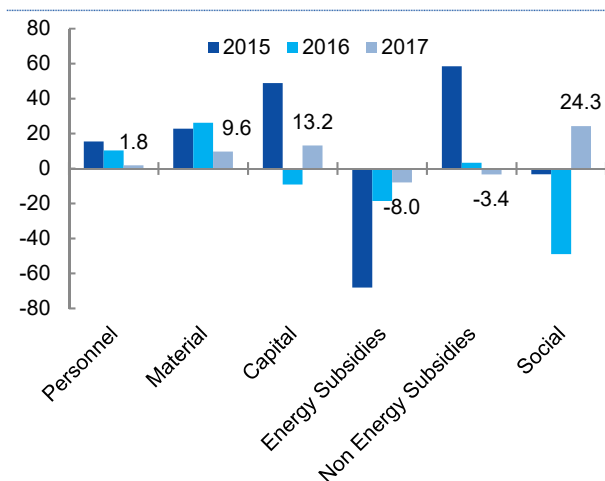
Figure 38: Disbursements of material, capital, and social budgets have improved
(actual January-November spending as a share of Revised Budget, percent)
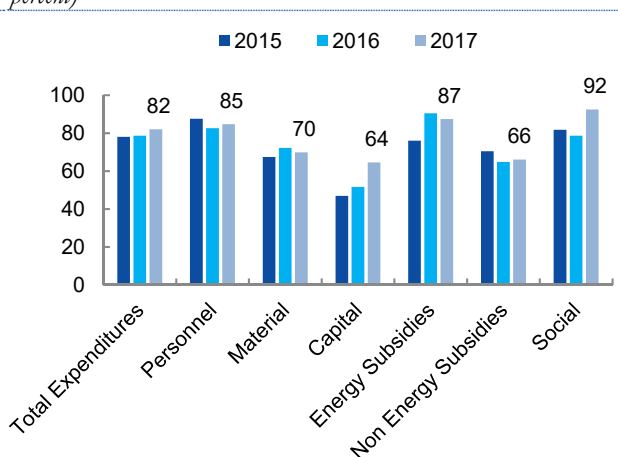
Source: Ministry of Finance, World Bank staff calculations
Note: Some social expenditures were reclassified into material spending in 2016.

The fiscal deficit projection is maintained at 2.7 percent of GDP in 2017

Given the absence of any major changes in the direction of revenues and expenditures, the fiscal deficit projection for 2017 is maintained at 2.7 percent of GDP. Revenue and expenditure projections are IDR 1,677 trillion and IDR 2,044 trillion, respectively.[43] The projected deficit is smaller than the 2017 Revised Budget target (2.9 percent of GDP) despite lower than expected revenues due to a projected budget disbursement rate of 95.8 percent[44].

Looking to 2018, revenue growth in the budget relies on non-O&G income tax and VAT

The 2018 Budget approved by Parliament on October 25, 2017 sets out a challenging total revenue target of IDR 1,894.7 trillion, or 12.8 percent of GDP. This figure implies a growth of 11.2 percent against the 2017 Revised Budget target excluding collections from the Tax Amnesty program[45]. Despite improving oil prices, the 2018 Budget relies more heavily on non-O&G income tax and VAT, which, if targets are met, would contribute 6.4 and 3.8 percentage points respectively of the total 11.2

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[43] The World Bank's 2017 projection assumes a crude oil price of 53 USD/barrel as compared to the Revised Budget assumption of 48 USD/barrel. In the October 2017 edition of the IEQ, total revenues were projected to reach IDR 1,684 trillion, while expenditures were projected to reach IDR 2,052 trillion in 2017.
[44] Projected disbursement rate is based on average disbursements for the previous 3 years.
[45] Growth rates for revenues of this magnitude were last achieved in the years 2010-2013 when oil prices and GDP growth were at much higher levels

percent growth[46]. This brings to the fore the importance of continued Government reforms of both tax policy and administration, especially with respect to income taxes and VAT, which account for the bulk of tax revenues. Revenues from tobacco excise will be another interesting stream to monitor, as the Government has issued new regulations for the 2018 tobacco excise[47] that have the potential to raise tobacco excise tax revenue collections, improve the tax's efficiency and horizontal equity, and lower the administrative costs of managing the tax.[48]

The 2018 Budget continues to prioritize social and infrastructure spending…

The 2018 Budget broadly reflects continuity in the Government' spending priorities. Total expenditure is set to increase by 4.1 percent in nominal terms relative to the target in the 2017 Revised Budget to IDR 2,221 trillion or 15.0 percent of GDP. Despite cuts in capital expenditure, which are 13 percent lower than the 2017 Revised Budget, overall infrastructure spending continues to be a priority[49]. The Government allocated IDR 410.7 trillion[50] or 18.5 percent of total expenditures to infrastructure, an increase of 2.4 percent from the 2017 Revised Budget. Social spending was also maintained, increasing by 7.4 percent[51] relative to the 2017 Revised Budget (Figure 39), in line with the further expansion of PKH from 6 to 10 million households. This is a positive development given that PKH beneficiaries appear to have better access to health and education compared to non-beneficiaries.[52] The non-cash food assistance program, *Bantuan Pangan Non-Tunai* (BPNT), was also expanded from 1.4 million to 15.6 million households.

…but it remains to be seen whether further subsidy reforms will occur

Reversing annual declines seen since 2015, the 2018 Budget allocation for energy subsidies (fuel, electricity, LPG 3kg) increased by 5.2 percent compared to the 2017 Revised Budget. This suggests that further electricity tariff hikes are unlikely to be on the cards (Box 3), although the Government has announced that it will begin targeting the LPG 3kg subsidy to poor and vulnerable households in 2018. Nonetheless, total subsidy allocations decreased by 16.6 percent to IDR 156.2 trillion in the 2018 Budget. This decline was mostly due to the reclassification of rice subsidies (Rastra) to social spending, reflecting a substantive change in the program from subsidizing rice prices to providing direct benefit transfers akin to electronic food vouchers[53]. Had the reclassification not occurred, total subsidy allocations would have increased by 3.6 percent in nominal terms compared to the 2017 Revised Budget (Figure 40) as cuts

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[46] Excluding revenues from the tax amnesty, non-O&G income tax has not contributed a significant share of total revenue growth in recent years. The Ministry of Finance is prioritizing efforts to improve compliance for this revenue stream in 2018. If successful, this should help contribute to the growth target the 2018 Budget sets.

[47] Ministry of Finance Regulation No. 146/PMK.010/2017

[48] The new policy introduced simplification of tobacco tiers, increased excise tariffs, and stipulated measures that enforce the provision that producers sell at market prices no less than the minimum regulated price (*harga jual eceran*, HJE). If market prices go up in response to the regulation, then consumption should fall, bringing positive health outcomes over the medium-to-long term.

[49] Capital expenditures from the Central Government are only a subset of total infrastructure spending as they also encompass capital expenditures from other line ministries.

[50] This figure follows the Government definition of infrastructure spending, which comprises: line ministry spending (Ministry of Transport, Ministry of Public Works & Housing), transfers to subnational governments (*Dana Alokasi Khusus*, DAK), and capital injections.

[51] This calculation excludes rice subsidies (*Rastra*), which have been reclassified from non-energy subsidies to social spending in the 2018 Budget in view of program modifications (see footnote below).

[52] World Bank (2017c).

[53] The Government plans to eventually replace Rastra's subsidized in-kind provisions with a more flexible and accountable e-voucher based delivery system under the *Bantuan Pangan Non Tunai* program. In 2018, rice subsidies will be converted to BPNT in 216 regencies. See https://news.detik.com/berita/d-3664100/bantuan-beras-dikonversi-ke-pangan-untuk-216-daerah-pada-2018

in fertilizer subsidies (9 percent) partially offset the large increase in the credit interest subsidy program (38 percent) as well as the increases in energy subsidies noted above.

Figure 39: Energy subsidies increase slightly in the 2018 Budget…
(actual spending compared to Revised Budget targets, percent)
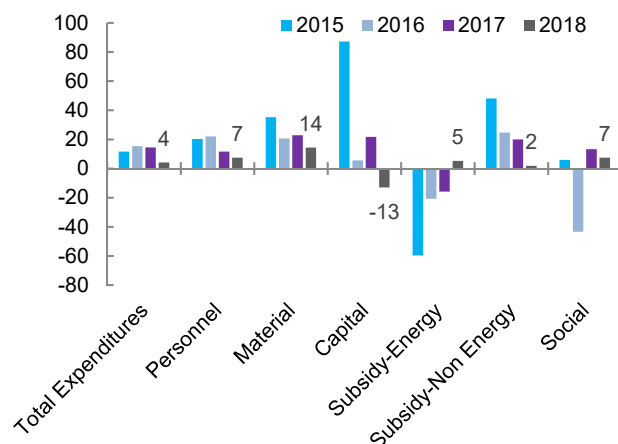
Figure 40: …but the 2018 Budget broadly reflects a continuation of the Government's spending priorities.
(IDR trillion)
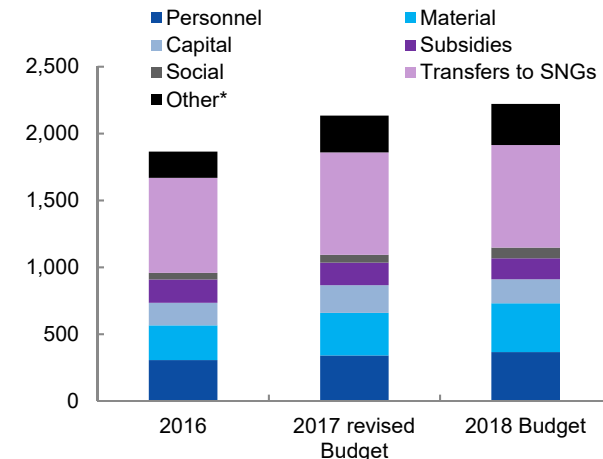
Source: Ministry of Finance, World Bank staff calculations
Note: 2018 refers to actual budget compared to 2017 Revised Budget target.

Source: Ministry of Finance, World Bank staff calculations
Note: 'Other' refers to interest payments and grants.

Risks to the outlook remain, reflecting structural issues and political challenges

A significant share of revenues in 2018 will remain closely correlated with oil prices, exposing the Government to risks from global oil price fluctuations. Without implementing reforms that broaden the tax base and that tax the existing base more efficiently and equitably, the Government's medium-term fiscal position will be compromised. On the spending side, fiscal risks stem from losses by Pertamina if the regulated prices of Premium gasoline and diesel continue to remain unchanged amid higher global fuel prices[54] (see Box 4), and from contingent liabilities associated with the financing of infrastructure projects. Overall, sustaining the reform momentum in revenue administration, tax policy, and quality of spending, will potentially be more challenging given upcoming regional and Presidential elections in 2018-2019.

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[54] Pertamina has called for subsidized fuel prices to be increased as it currently shoulders the difference between market prices of USD 60/barrel and the regulated price, which has not changed since April 2016 when oil prices were USD 37/barrel.

Box 3: Further advancing on the fuel subsidy reform requires 'off balance sheet subsidies' to be addressed

Following implementation of the major fuel subsidy reform in January 2015, the Government of Indonesia discontinued budgetary transfers to subsidize Premium—gasoline with a research octane number (RON) of 88, and shifted to a fixed IDR 1,000 per liter subsidy for diesel, still covered by the budget[1]. The reform resulted in a significant reduction in fuel subsidy outlays, moving its share from 2.5 percent of GDP in 2014 to 0.5 percent of GDP in 2015.

The pricing mechanism stipulated in the reform calls for domestic gasoline and diesel retail prices to be reviewed at least once a month[2] and, if necessary, adjusted subject to changes in global oil prices and exchange rates, among others. However, although world oil prices (e.g., Brent crude) rose by 45 percent between April 2016 and November 2017, and the Rupiah depreciated by 2.6 percent over the same period, domestic retail price of RON 88 fuel has not been changed since April 2016. Further, in October 2017 the government announced its intention that retail prices for gasoline and diesel should not be adjusted until 2018[3]. As such, the regulated retail fuel price for RON 88 has diverged from its estimated market price[4], pointing to an implicit subsidy provided to consumers (Figure 41).

Because the government is no longer providing budgetary subsidies for gasoline, increases in the costs of RON 88 must be borne either by consumers through higher prices or through higher implicit subsidies, and therefore losses at Pertamina– the Indonesian state owned oil and gas company tasked with the provision and distribution of gasoline.

Further, with the aim to reduce fuel price disparities in remote areas in Indonesia, the Government implemented a single fuel-price policy in October 2016[6], which while laudable for its equity concerns represents a further move away from market-based fuel pricing. Pertamina indicates that around IDR 2 – 3 trillion annually will be needed to maintain domestic gasoline prices stable across Indonesia[7].

On the other hand, Pertamina has been successfully promoting the switch to higher grades of gasoline in its filling stations, partly by reducing the availability of RON 88[8]. The strategy has proven effective in curbing sales of RON 88, with its share in the sales mix falling from 80 percent in 2016 to approximately 40 percent in 2017; meanwhile, the share of RON90, which currently retails for about 15 percent more than RON 88, increased from 9 to 41 percent (Figure 42).

Figure 41: The Premium RON88 retail price has not been adjusted since April 2016
(RON 88 gasoline regulated retail and estimated market price, IDR per liter; oil price (ICP) USD/barrel - RHS)
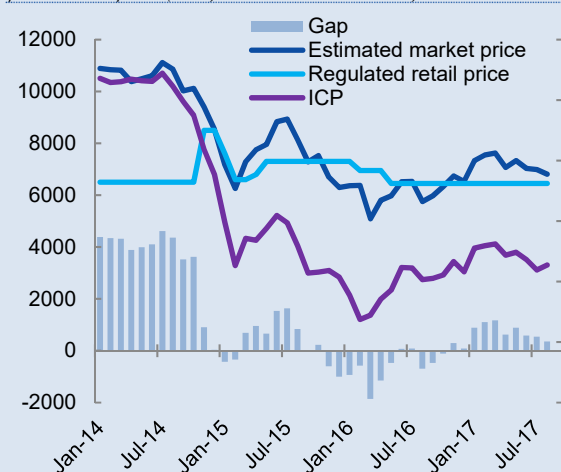
Figure 42: Pertamina gasoline sales mix
(percent)
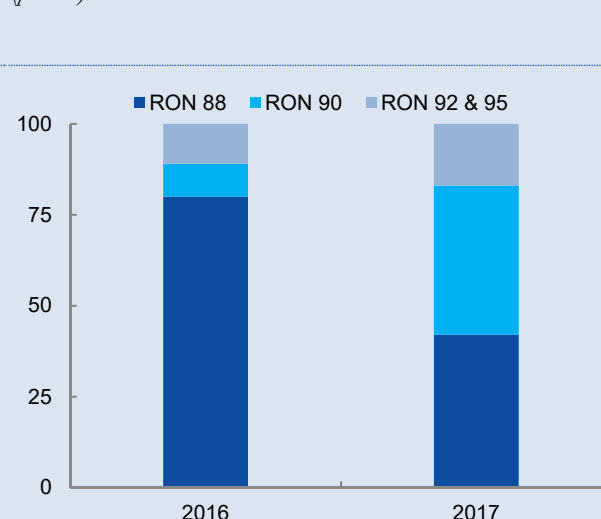
Note:
Figure x: The pricing formulae used to estimate the market retail price for RON f88 gasoline in Indonesia is specified in http://jdih.esdm.go.id/peraturan/Kepmen-esdm-2856-2015.pdf. The formulae include the 10-percent value-added tax and the 5-percent motor fuel tax. Because RON 88 gasoline is not sold in most countries and its spot prices are not available, a discount of 1.6 percent is applied to the spot prices of the lowest-octane gasoline sold in Singapore (92 RON) as an approximation. The 'Gap' indicates the difference between the estimated market price and the regulated price.
Source:
Figure 1: Ministry of Energy and Mineral Resources; Ministry of Finance; CEIC; World Bank staff calculations
Figure 2: Estimated using Pertamina's press release http://www.pertamina.com/news-room/siaran-pers/konsumsi-bbm-berkualitas-tinggi-makin-meningkat/; World Bank staff calculations

It is estimated that Pertamina has lost as much as IDR 18.9 trillion from January to September this year[5]. Losses would be expected to increase if global oil prices climb further without adjustments to fuel prices. This may adversely affect the state-owned company's financial position and therefore its ability to undertake other government mandates such as increasing domestic oil production[9]. To secure Pertamina's financial position and, more broadly, the longer-term dividends from the January 2015 fuel price reform, it is important for the Government to continue adjusting fuel prices reflecting global prices. Since higher oil prices also help government revenues, poor and vulnerable households can be better supported through more spending on targeted social assistance programs.

[1] The per liter subsidy for diesel was subsequently lowered to IDR 500 per liter in July 2016.
[2] In early 2016, the frequency for review and retail price adjustments was amended to every three months. For more detailed discussion, see World Bank (2015a) and World Bank (2015b).
[3] The Minister of Finance announced that the fuel prices won't be increased at least until 2018 – see https://tirto.id/sri-mulyani-harga-bbm-dan-tarif-listrik-tak-naik-pada-2018-cu2E
[4] Market based retail fuel prices for RON 88 have to be estimated because they are not observed.
[5] https://af.reuters.com/article/commoditiesNews/idAFL3N1O52C0
[6] Pertamina rolled out the program gradually and aims to at least cover 54 remote cities and regencies across the nation by the end of 2017 and reach 150 by 2019. The single fuel price policy only holds for RON 88. Retail prices for RON 90, 92 and 95 are unregulated and are also exempt from the single fuel price policy.
[7] http://www.thejakartapost.com/news/2017/11/17/pertamina-says-fuel-prices-need-to-be-increased.html
[8] In a Parliament hearing in July 2017 BPH Migas (Oil and Gas Downstream Regulatory Agency, responsible for the supervision of fuel distribution and transportation of gas trough pipelines) declared that as many as 1,094 of the 5,480 filling stations that Pertamina operates do not sell Premium.
[9] The audited government budget in 2016 showed arrears of IDR 22.4 trillion to cover for subsidy for kerosene, diesel and LPG (https://www.kemenkeu.go.id/media/5998/lkpp-2016.pdf page 160)

The World Bank projects a fiscal deficit of 2.2 percent of GDP in 2018

In line with the stronger macroeconomic outlook for 2018 and ongoing tax policy and administration reforms, the World Bank projects a budget deficit of 2.2 percent of GDP, the same as the 2018 Budget target (Figure 43), (Table 4). Total revenues are projected to reach IDR 1,886 trillion, 12.5 percent higher than the World Bank's 2017 projection excluding revenues from the Tax Amnesty program[55]. On the spending side, total expenditures are projected to reach IDR 2,210 trillion, only 0.5 percent lower than the 2018 Budget target. The proximity in the World Bank's spending projection to the Budget is not due to the assumption of a 100 percent disbursement rate, but rather due to a higher oil price expectation, which helps revenues come in close to budget expectations but also give a boost to expenditures[56].

Figure 43: World Bank projects slightly lower revenues and a wider fiscal deficit that Budget 2018
(percent of GDP)
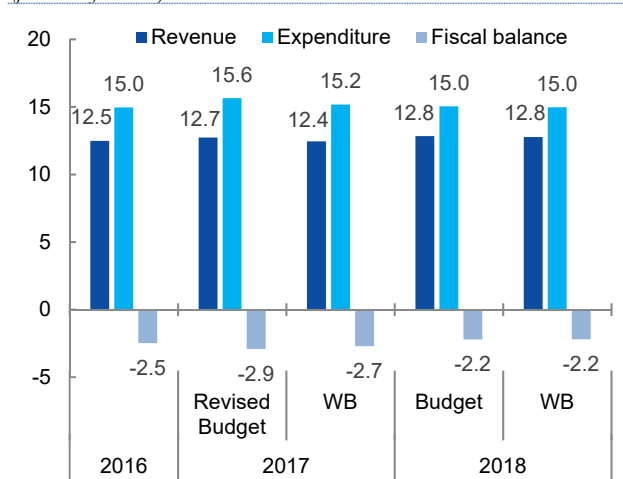
Source: Ministry of Finance; World Bank and staff calculations

[55] The World Bank total revenue projection is only 0.5 percent lower than the 2018 Budget, but relies more heavily on commodity-related revenues by composition. This is because the World Bank's assumption for oil prices in 2018 (USD 58/barrel) exceeds that of the Budget (USD 48/barrel). In contrast, the 2018 Budget has higher revenue targets than the World Bank's projection for non-commodity related revenues. For example, VAT collections are 4.4 percent higher.
[56] If higher prices materialize, revenue-sharing transfers to regions will increase, and so likely will social spending to ameliorate the burden on lower-income households.

Box 4: How much do oil prices influence Indonesia's fiscal revenues?

When analyzing the extent to which Indonesia's fiscal revenues are linked to crude oil prices, analysts often simply sum up revenues collected from oil and gas (O&G) income tax and from O&G non-tax revenues (NTR), or so called revenues that are directly related to crude oil prices. This 'narrow' approach is incomplete, as it does not consider other revenue streams that, though not directly related, are nevertheless correlated to a significant degree with oil prices. Table 3 lists those correlated items. Positively correlated revenue items can be divided into two categories according to how strongly they correlate with oil prices: export duties are strongly correlated, while O&G NTR, O&G income tax and import VAT are only moderately so[1]. Using the 'broader' approach can yield significantly different outcomes. In 2016, for example, positively correlated revenues accounted for a share of total revenues that was 156.7 percent larger than the 'narrow' definition of directly related revenues (Figure 44).

Table 3: Revenue streams correlated with oil price

Positively correlated revenues	
Revenue stream	**Strength of correlation**
Export duties	Strong
O&G NTR	Moderate
O&G income tax	Moderate
Import VAT	Moderate

Figure 44: Share of total revenues correlated with oil price
(percent)
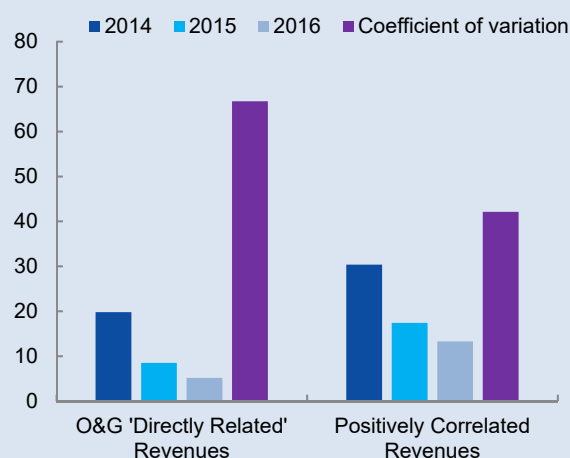
Source: Data for revenues from Ministry of Finance and for oil price from World Bank; analysis by World Bank staff
Notes:
O&G stands for oil and gas; NTR stands for non-tax revenues. Strength of correlation is as defined in footnote (1).
'O&G Directly Related Revenues' is computed as the sum of O&G income tax and O&G non-tax revenues.
'Revenues positively correlated with oil prices' are the four items listed under 'Positively correlated revenues'.
The coefficient of variation is a measure of the statistical dispersion of data points around the mean and is defined as the standard deviation divided by mean, and is calculated using monthly data for the selected years 2014-2016.

Another benefit with adopting the broader definition of O&G-linked revenues is that the associated coefficient of variation, a measure of volatility, is lower for the share of revenues positively correlated with oil prices as compared to the narrow definition[3]. This lower variance makes forecasting future revenues using the broader approach more reliable.

Preliminary analysis shows that a 1 percent increase in oil prices is associated with approximately a 1 percent increase in positively correlated revenues, ceteris paribus. For example, this implies that in 2016, a 1 percent increase in oil prices is associated with approximately 0.013 percent increase in total revenues, ceteris paribus.

[1] Strength of positive correlation levels are defined as follows: 'strong' refers to a correlation coefficient higher than 0.6; 'moderate' refers to a correlation coefficient higher than 0.4, but lower than 0.6. Correlations are calculated using a data set of monthly revenues from January 2010 to April 2017.

Table 4: The World Bank projects a deficit of 2.2 for 2018, equivalent to the Budget
(IDR trillion, unless otherwise indicated)

	2016 Actual Audited	2017 Budget	2017 Revised Budget	2017 MoF Outlook	2017 World Bank	2018 Budget	2018 World Bank
A. Revenues	**1,556**	**1,750**	**1,736**	**1,736**	**1,677**	**1,895**	**1,886**
(% of GDP)	*12.5*	*12.5*	*12.8*	*12.8*	*12.3*	*12.8*	*12.8*
1. Tax revenues	**1,285**	**1,499**	**1,473**	**1,473**	**1,421**	**1,618**	**1,576**
(% of GDP)	*10.4*	*10.9*	*10.8*	*10.8*	*10.5*	*10.9*	*10.7*
Income taxes	666	788	784	784	742	855	823
Oil & Gas	36	36	42	42	41	38	43
Non-Oil & Gas	630	752	742	742	701	817	780
VAT/LGST	412	494	475	475	462	542	518
Property taxes	19	17	15	15	15	17	16
Excises	144	157	153	153	153	155	167
International trade taxes	35	34	36	36	40	39	42
Import duties	32	34	33	33	37	36	39
Export duties	3	0	3	3	3	3	3
Other taxes	8	9	9	9	9	10	10
2. Non-tax revenues	**262**	**250**	**260**	**260**	**253**	**275**	**309**
(% of GDP)	*2.1*	*1.8*	*1.9*	*1.9*	*1.9*	*1.9*	*2.1*
Natural resources revenues	65	87	96	96	92	104	134
Oil & Gas	44	64	72	72	69	80	109
Non-Oil & Gas	21	23	23	23	23	23	25
Other non-tax revenues	197	163	165	165	161	172	175
3. Grants	**9**	**1**	**3**	**3**	**3**	**1**	**1**
B. Expenditures	**1,860**	**2,080**	**2,133**	**2,099**	**2,044**	**2,221**	**2,210**
(% of GDP)	*15.0*	*15.2*	*15.7*	*15.4*	*15.0*	*15.0*	*15.0*
1. Central government	**1149**	**1,316**	**1,367**	**1,343**	**1,296**	**1,454**	**1,432**
(% of GDP)	*9.3*	*9.6*	*10.0*	*9.9*	*9.5*	*9.8*	*9.8*
Personnel	305	345	340	331	331	366	364
Material	260	270	319	302	302	365	350
Capital	169	221	206	203	204	179	174
Interest payments	183	221	219	219	220	239	249
Subsidies	174	160	169	169	159	156	166
Energy	107	77	90	90	85	95	105
Fuel	44	32	44	44	21	47	52
Electricity	63	45	45	45	64	48	53
Non-energy	67	83	79	79	75	62	62
Grants	7	2	6	6	8	1	1
Social	50	56	58	58	54	81	86
Other	6	41	50	56	18	67	42
2. Transfers to regions	**710**	**710**	**766**	**756**	**748**	**766**	**778**
(% of GDP)	*5.7*	*5.5*	*5.6*	*5.6*	*5.5*	*5.2*	*5.3*
Overall Balance	**-308**	**-308**	**-397**	**-363**	**-367**	**-326**	**-324**
(% of GDP)	*-2.5*	*-2.4*	*-2.9*	*-2.7*	*-2.7*	*-2.2*	*-2.2*
Assumptions							
Real GDP growth rate (%)	5.0	5.1	5.2	5.2	5.1	5.4	5.3
CPI (%)	3.5	4.0	4.3	4.3	3.8	3.5	3.5
Exchange rate (IDR/USD)	13,300	13,300	13,400	13,400	13,587	13,400	13,500
Crude-oil price (USD/barrel)	51	45	48	48	53	48	58

Source: Ministry of Finance

8. Economic outlook improves but risks remain

Indonesia's economic outlook is positive with a supportive global economy and improving domestic conditions

Indonesia's economic outlook continues to be favorable as the conducive external environment persists and domestic conditions become more positive. Amid stronger global economic growth, rebounding international trade with more investment and manufacturing activity, and still relatively accommodative monetary and financial conditions, the global economy continues to be supportive of Indonesia's economic growth. At the same time, domestic conditions have also improved as the softness observed in Q2 appears to have begun to dissipate, along with continued macroeconomic stability, lower interest rates, and the government's continued commitment to growth enhancing structural reforms.

Real GDP growth is projected to strengthen to 5.3 percent in 2018 on stronger private consumption

On the back of stronger private consumption, investment and exports, real GDP growth is estimated to tick up to 5.1 percent in 2017 and further strengthen to 5.3 percent in 2018 (Table 5). While estimated to remain steady this year, private consumption is projected to strengthen next year amid current signs of dissipating softness, strong employment and wage gains[57], easing inflation and lower borrowing costs.

Table 5: Key economic indicators
(growth yoy, percent, unless otherwise indicated)

	Annual			Revision from previous IEQ
	2016	**2017e**	**2018f**	**2017**
1. Main economic indicators				
Gross Domestic Product (GDP)	**5.0**	**5.1**	**5.3**	**0.0**
Private consumption expenditure	5.0	5.0	5.1	0.0
Government consumption	-0.1	2.5	3.5	-1.0
Gross fixed capital formation	4.5	5.9	6.1	0.9
Exports of goods and services	-1.7	10.0	6.0	5.0
Imports of goods and services	-2.3	7.5	5.6	4.3
2. Other economic indicators				
Consumer price index	3.5	3.8	3.5	-0.2
GDP Deflator	2.5	4.2	3.2	0.3
3. Economic Assumptions				
Exchange rate (IDR/USD)	13300	13587	13500	254
Indonesian crude price (USD/bl)	51	51	56	1

Source: BPS; BI; CEIC; World Bank staff projections
Note: 2016 figures are actual outcomes. E and F stand for estimate and forecast. Statistical discrepancies and change in inventories are not presented in this table. All GDP components are based on the latest GDP data. Exchange rate and crude oil price assumptions are average annual data. Revisions are relative to projections in the March 2017 IEQ.

Investments are also projected to pick up, while exports will surge, lifting GDP growth

Investment growth is expected to be robust this year due to the improved terms-of-trade and a recovery of investments in the mining sector. It is expected to rise modestly in 2018, given lower financing costs due to accommodative global and domestic monetary conditions and firm if not rising commodity prices. Stronger foreign direct investment inflows and public capital expenditures, particularly in 2017, are forecast to buttress investment expenditures by the private sector. After contracting for the past two years, exports are expected to surge in 2017, fueled by the strong global economy, rebound in international trade, and the competitiveness

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[57] See World Bank (2017c).

gains from a modestly depreciated Rupiah. The growth of exports is expected to ease in 2018, in line with the projected softer commodity prices and a higher base.

The 2018 budget reaffirms the country's commitment to fiscal responsibility

The 2018 Budget sets challenging but realistic tax revenue targets for non-commodity related revenue streams, and broadly reflects continuity in the Government's priorities on social and infrastructure spending. At 2.2 percent of GDP, the 2018 fiscal deficit target in the Budget is lower than in previous years, providing increased fiscal space in the short term. In line with the stronger macroeconomic outlook for 2018 and ongoing tax policy and administration reforms, the World Bank also projects a budget deficit of 2.2 percent of GDP, the same as the 2018 Budget target.

The current account deficit is expected to widen modestly in 2018, in line with the decline in terms of trade and strong investment growth

Amid stronger commodity prices and the associated the positive terms-of-trade shock, and the enhanced demand for Indonesia's exports in line with strong global economy and strengthening trade flows, Indonesia's current account deficit is expected to narrow to 1.6 percent of GDP in 2017. As terms-of-trade decline in 2018 while investment remains robust, the current account is expected to widen modestly to 1.8 percent of GDP.

Risks to the outlook include risks to slower private consumption growth…

Risks to the outlook are tilted to the downside. While there are green shoots in private consumption, they remain tentative at the moment. Given that consumption constitutes a significant share of GDP, any slowdown will have strong repercussions on total expenditures.

…and external risks include global financial volatility

As the U.S. Federal Reserve proceeds on its monetary policy normalization both in terms of rising the Federal Funds rate and reduction of its balance sheets, any faster than expected tightening could spark volatility in the financial markets. Such volatility could result in sudden capital outflows from emerging market economies including Indonesia, triggering a sharp increase in borrowing costs which would stifle investment.

…and volatility in commodity prices…

While the Indonesian economy has seen some economic diversification in recent years, economic performance is still substantially tied to commodities. As such, sharper than expected declines in commodity prices, such as that of coal, could significantly weaken the country's terms-of-trade and exert downward pressure on external balances as well as government revenues, dragging on growth. On the other hand, a sharp increase in oil revenues, while positive for Government revenues, would create pressures on Pertamina's balance sheet, or on inflation and therefore consumption.

…and political risks

Although Indonesia is a vibrant democracy that has successfully held numerous elections, the upcoming election season brings risks of occasional volatility, as well as of a dampening of the reform momentum.

B. Focus Topics

Making Decentralized Democracy Deliver Local Service Improvement: The Role of the Central Government

Indonesia has experienced significant decentralization in the past 15 years. The Local Governance and Fiscal Balance Law in 1999 provided greater political and economic powers to local governments in managing resources and addressing the need of their citizens. Transfers to subnational governments, especially districts, surged and today over half (53 percent) of public expenditure in Indonesia is undertaken at the subnational level. Decentralization increases opportunities for local solutions to local problems, improved the accountability of local leaders, and the entry of political outsiders. Inevitably, decentralization will produce varying results in local service delivery among local governments. This article examines access to local service delivery after decentralization, based on three main questions: (i) what happened to local service delivery during decentralization? (ii) how do we move the needle on local government performance? (iii) what kind of design mechanisms can incentivize local leaders and sub-national governments to improve local service delivery? Three key policy recommendations should help align incentives to promote service delivery performance by local leaders and public officials: i) implementing good practices for evaluating local government performance, ii) embedding results-orientation into intergovernmental fiscal transfers, and iii) use transparent and comparative local government performance data to stimulate citizen engagement.

     a.   **What happened to local service delivery during decentralization?**

More than half of public spending in Indonesia is conducted by subnational governments

About 53 percent of total government spending (excluding subsidies and interest payments) is currently conducted by sub-national governments, with district governments managing about 38 percent, and the remaining 15 percent by provinces (Figure 45).[58] Provinces and districts accounted for only 16 percent of government spending in 2000. This shift is in line with the shift in primary responsibilities for the delivery of basic services to local governments, which includes education, health and infrastructure. In real per capita terms, the amount of spending by local governments has more than doubled since the beginning of

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[58] Provinces are the second government tier in Indonesia, whereas districts are the third government tier.

decentralization in 2001 (Figure 46). The role of local leaders and the functioning of local bureaucracies have become more critical in service delivery. After 16 years of decentralization, maybe it is time to pose questions about how local service delivery has evolved after decentralization, and whether inter-regional disparity in access to local service delivery has widened or shrunk?

Figure 45: Share of central, province and district government spending in total government spending (excluding subsidies and interest payments), 1994-2015 *(percent)*

Figure 46: Real per capita spending of central, province, and district governments, 1994-2015 *(Thousands of Rupiah)*
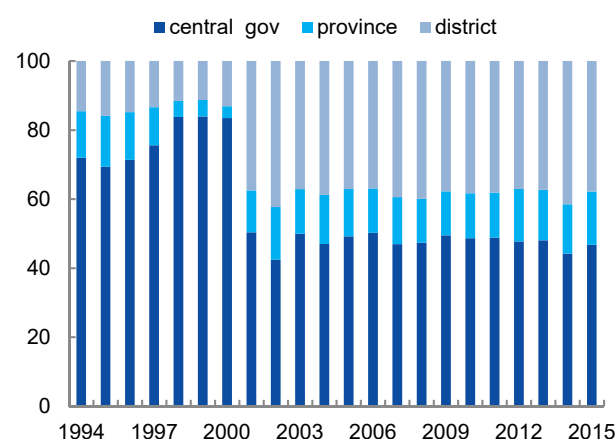
Source: APBN and SIKA data, World Bank staff calculations
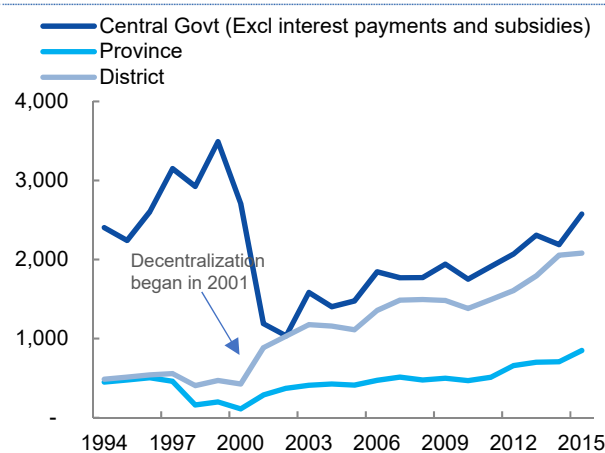
Source: APBN and SIKD data, World Bank staff calculations

Access to basic services has improved, but less than proportionate to the increase in local government spending

To examine improvements in local service delivery, five indicators that reflect access to locally provided basic services are used: (i) net enrollment rate for junior high school; (ii) net enrollment rate for senior high school; (iii) access to protected water; (iv) access to protected sanitation; and (v) proportion of births attended by a skilled health worker. The average of these five indicators is used to produce a simple aggregate measure of access to basic services. Henceforth, this measure is termed as the *average access to basic services*.[59] In line with the increased spending by subnational governments over the last fifteen years, these indicators at the national

Figure 47: National indicators for locally delivered services have improved since 1994 *(percent)*
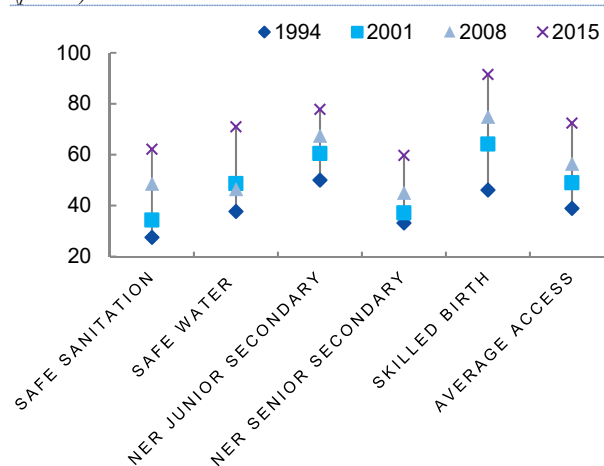
Source: BPS data, World Bank staff calculations

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[59] An average score of 100 means that all households in the relevant district have access to protected water and sanitation, all births were attended by a skilled worker, and everyone in the relevant age groups are enrolled in junior or secondary school; a score of 0 means that no households have access to protected water or sanitation, no births were attended by a skilled worker, and no child in the relevant age groups are enrolled in junior or secondary school.

level have improved (Figure 47). However, the magnitude of the expansion in access to local services is lower than the increase in local spending per capita: local government spending per capita rose 2.5 times, while the increase in average access to basic services was only 1.5 times.

Disparity between districts in access to basic services has shrunk

One major risk of decentralization is that it can increase subnational disparity, particularly when there are significant differences in districts' capacities to deliver services. Figure 48 presents the distribution curves for the average access to basic services. Overall, there was an improvement in access over the years. In addition, the variation across districts declined for all access indicators as measured by the declining

Figure 48: Distribution curves of districts' average access to basic services, 2001, 2008, and 2015
(percent)

Source: Susenas data, World Bank staff calculations.

coefficient of variation. The *average access to basic services* increased from 48.8 percent in 2001 to 70.9 percent in 2015, while its coefficient of variation declined from 0.23 to 0.17[60]. The improvement in average access and reduction in disparity was also reflected in each of the five underlying indicators. In 2001, on average less than 40 percent of students were enrolled in senior secondary schools, but this increased to 60 percent in 2015. Therefore, the average citizen today has significantly better access to basic services than at the beginning of decentralization, and these improvements appear to have happened across district percentiles, bar a few lagging districts at the left tail of distribution curve (Figure 48). Looking at access to each of five services, the decline in the variation of access is the most prominent in junior secondary enrollment and senior secondary enrollment, and less distinct in the other three indicators (Figure 49).

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[60] An increase in coefficient of variation implies that the underlying data is more dispersed, hence more variation.

Figure 49: Access to 5 basic services by decile, 2001, 2008 and 2015
(percent)

Junior Secondary School Enrollment
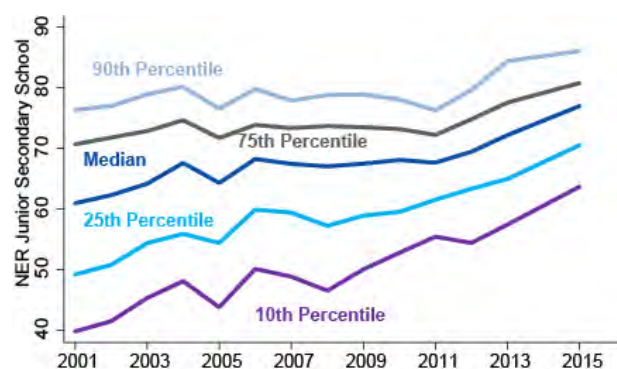
Senior Secondary School Enrollment
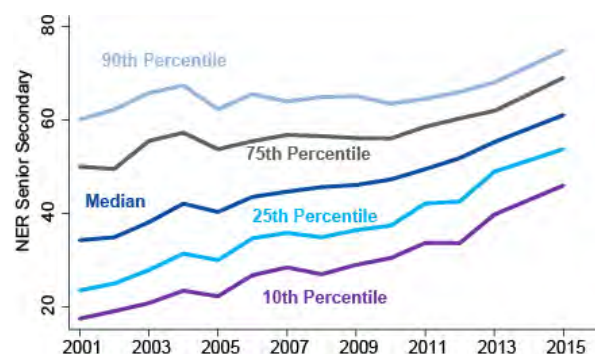
Access to protected water
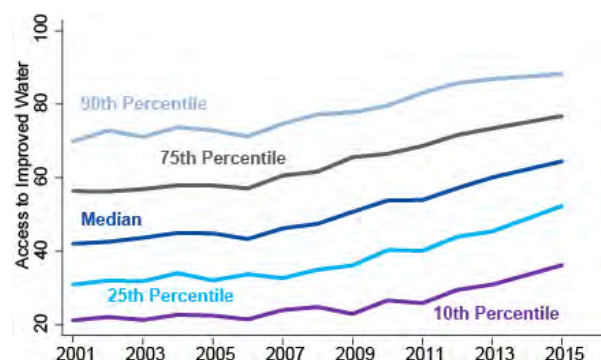
Access to protected sanitation
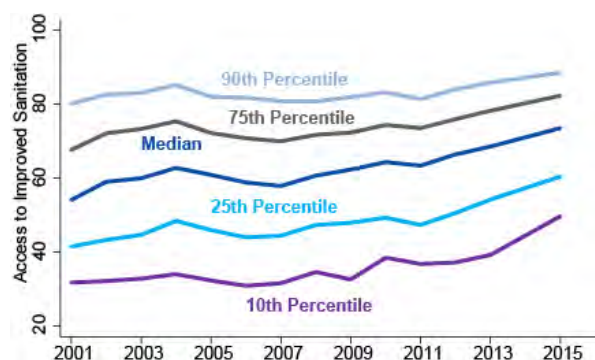
Birth attended by skilled health workers
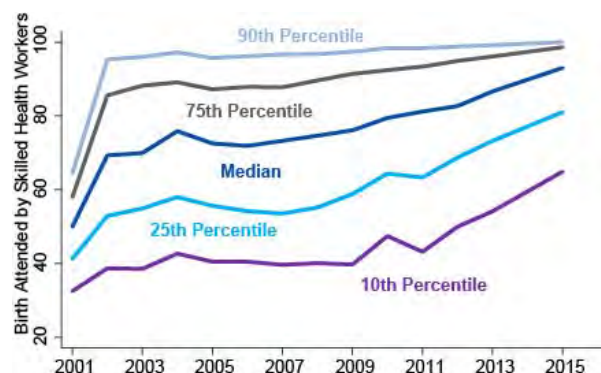
Average access to basic services index
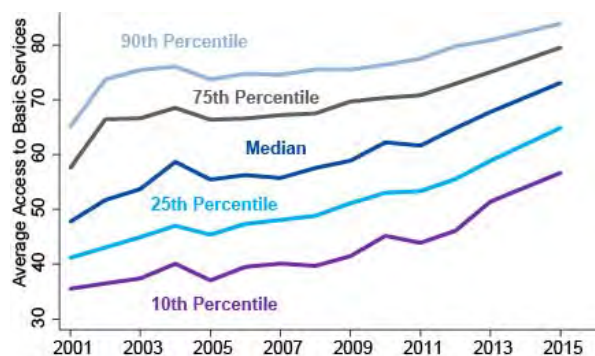
Source: Susenas data, World Bank staff calculations.

Despite improvements in access, education and health outcomes remain poor

However, despite the increase in access to basic services, there have not been visible improvements in education and health *outcomes* at the national level. For example, Indonesian students' scores relative to the OECD average in the Program for International Student Assessment (PISA) have only improved slightly between 2001 to 2015. In addition, there is no clear trend among the national exam (UN) scores[61],

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[61] Some would argue that national exam (UN) scores are very flawed measures of student learning outcomes due to the incomparability of test material across regions and across years and widespread cheating. However, these scores are one among very few nationally generated indicators available that could indicate changes in student learning outcomes. There has been positive development in how the exam is organized since 2015, which will hopefully generate better data in the future (see Box 6).

as the average score for senior secondary schools increased from 59 in 2006 to 71 in 2010, but declined to 55 in 2014. For junior secondary schools, the score increased from 66 to 71 between 2006 to 2010, but declined to 65 in 2014[62]. In the health sector, despite the massive expansion in access to skilled births, the maternal mortality rate has increased, rather than declined, and is still high when compared to neighboring countries. Official estimates from national surveys show that maternal mortality increased from 228 per 1,000 births in 2007 to 359 in 2012. Another relevant indicator is the rate of stunting, whose reduction has been relatively slow, moving from 41.6 percent in 2001 to 36.4 percent in 2013. This level of stunting is above the average for middle income countries, which stood at 27 in 2010.[63]

In contrast to the general decline in regional disparity in access to services, the regional disparity in learning outcomes have widened

District-level data on service delivery outcomes are limited or problematic (Box 6). The three outcome indicators, for which disaggregated data are available, i.e. national exam scores for junior and secondary schools, and stunting rates, show widening regional disparity. The coefficient of variation for junior high school exam scores increased from 0.09 in 2006 to 0.15 in 2014 (Figure 50). Likewise, for senior high schools, the coefficient of variation rose from 0.09 to 0.14. Meanwhile, the average stunting rate increased from 38.3 to 39.4, while the coefficient of variation was unchanged at 0.24.[64]

Figure 50: Distribution curves for National Exam Scores for Junior High Schools
(score)
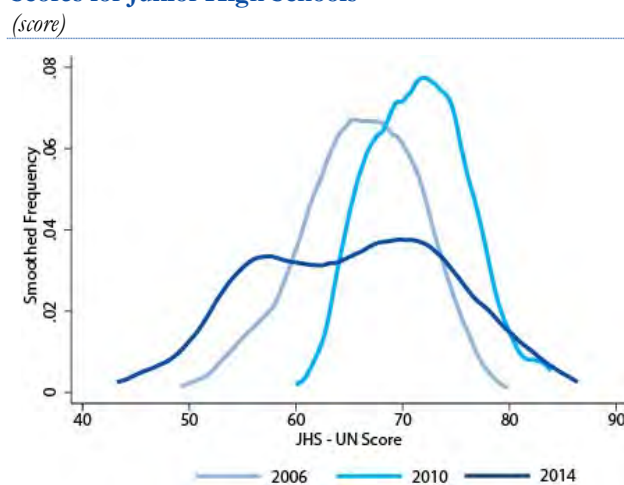
Source: SUSENAS and SIKD data, World Bank staff calculations.

i. **Explaining the variability in how district improve their access to services**

Improvements in access to services are partly influenced by factors outside local government control

Apart from spending undertaken by local governments, econometric analysis (Box 5) suggests that improvements in access to services are also partly explained by variables outside of local government control. Access to services are positively associated with household consumption, a proxy for income and citizen demand, and access to electricity, a proxy for centrally provided infrastructure. In contrast, an increase in income inequality, as measured by the Gini coefficient, was found to have a negative impact on the improvement in access to services, consistent with literature findings that inequality increases the risk of local elite capture.

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[62] These phenomena of higher enrollment without much improvement in learning are discussed in World Development Report 2018. The case of Vietnam and a few other countries, suggest that expanding access to schools and improving learning outcomes can go hand in hand.
[63] World Development Indicators (2017).
[64] The differences between national figures and the average of district stunting rates resulted from the national figures being weighted by population, while stunting rates at the district level are averaging stunting rates without considering the population size of that district.

Box 5: Econometric model to analyze access to basic service performance

The empirical model that was employed is based on McCulloch *et al.* (2015), updated with newer data. The dependent variable is the average access to basic services (see above for definition of this index). It is posited that access to basic services are determined by variables that are within the control of the district governments (endogenous variables) and those that local governments cannot directly control (exogenous variables), the latter being the control variables in our estimation process.

The estimation equation (1) is as follows:

$$s_{it} = \alpha s_{it-1} + x_{it}\beta_1 + w_{it}\beta_2 + u_i + \theta_t + \varepsilon_{it} \qquad\qquad (1)$$

where *i* is the individual district, *t* is time in years, and the average access to services for district *i* in time *t* s_{it}, is a function of:
s_{it-1} = access to services in the preceding period, x_{it} = the exogenous variables, w_{it} = endogenous variables, u_i = unobserved and constant district effects, θ_t = time fixed effects, and ε_{it} = an i.i.d error term with mean zero and constant variance. The parameters of interest are α, which indicate whether the preceding level of access affects subsequent levels of access. The estimated parameters β_1, and β_2, show how the endogenous and exogenous variables are associated with the levels of access to services.

The endogenous variables are the log of real district government spending per capita and its square. It is treated as endogenous because districts can adjust spending at the margin, via changes to own-source revenues and the level of budget surplus/deficit, and that these changes can be plausibly assumed to respond to the dependent variable. The exogenous variables include: (i) the log of real household expenditure per capita (as proxy for income and demand); (ii) the percentage of households with access to electricity (as a proxy for services provided by central government); (iii) the Gini coefficient; and (vi) population density. Data sources include various statistical surveys and publications, such as: SUSENAS for service access, household consumption, and poverty; MoF data for local government spending; and BPS data for electrification rates and population.

The parameters of equation (1) were estimated using a difference Generalized Method of Moments (GMM) technique. The difference in GMM purges the model of the unobserved constant effect then proceeds to instrument all variables with their previous values. The regression conducted on an unbalanced panel of districts, for the years 2001 to 2014. Number of districts vary each year, ranging from 313 districts in 2001 to 473 districts in 2014.

The estimation results are as follows:

Explanatory Variables	Estimated Coefficients
Index of Average Access to Services (Previous Year)	0.684***
Log of Real Total LG Spending per Capita	68.51**
Squared Log of Real Total LG Spending Per Capita	-2.842**
Log of Real Household Expenditure per Capita	5.906***
Household Electrification Rate	0.225***
The Gini Coefficient	-7.581**
Density (People per square km)	-0.000147

Simply increasing local government spending for the lagging districts may not increase access to services.

Spending on sectors related to the five access indicators is around 61 percent of the 2015 district budget[65]. However, McCulloch *et al* (2015) suggested that overall level spending may be more relevant as a determinant of service access than only sectoral expenditures. For example, to increase school enrollment, the local government needs to spend not only on education related expenditures, but also on the construction of roads in order to connect the

Figure 51: Correlation between changes in access and changes in local government spending per capita
(percent)
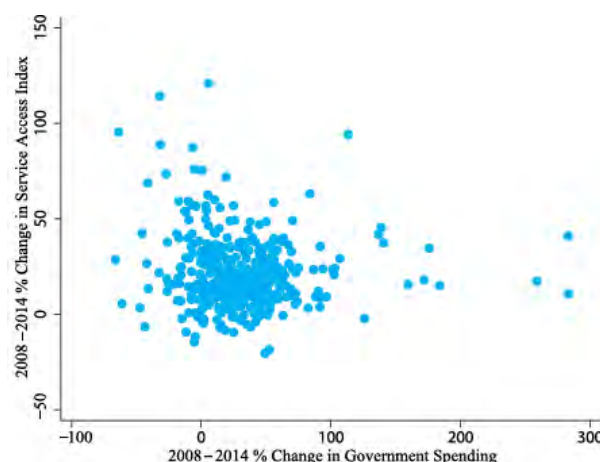
Source: WB staff estimate based on SUSENAS and SIKD data

student to the school. Moreover, the literature suggests that simply increasing spending does not always result in a continued improvement in access to services. The simple correlation between changes in total local spending per capita and changes in access to services at the district level between 2008 to 2014 is very weak (Figure 51). Regression results from Box 5 suggest that there is an inverted U relationship between additional spending and improvement in access to services. Additional spending per capita does not always commensurate with improvement in access to services, and at some point, increases in spending result in lower increases in access to services.

The most lagging regions in terms of access already have high spending per capita but with low audit results

The distribution of real per capita spending in Indonesia is marked by extreme inequality (Figure 52). In 2014, 90 percent of the districts spent between IDR 700,000 to IDR 6.5 million per capita, where district at the 90th percentile spent about 5.5 times per capita compared to the bottom 10 percent district. Moreover, the top 1 percent district spent 42 times more than the bottom 10 percent district. About 43 percent of the top 5 percent districts in

Figure 52: Real local Government spending per capita, 2001, 2008, 2014
(percent)
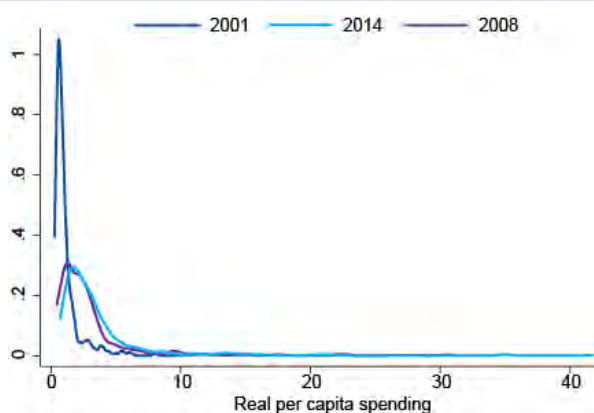
Source: WB staff estimate based on spending data from SIKD and population data from BPS

terms of average spending per capita over the year 2008-2014 have average access

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[65] Consist of spending for health, education, housing and community services (Source, WB COFIS Database 2017).

rates that belong to the bottom 10 percent in terms of access to services. Only one of these districts received unqualified opinion consecutively between 2014 and 2015.

Box 6: Data issues in tracking local service delivery progress

Tracking outcome level indicators are difficult. As discussed in the main text, there are only few outcome indicators that have disaggregated data down to district level. Health outcomes indicators such as maternal mortality rate (MMR) are produced through surveys that were not designed to be representative at the district level. The alternative is to use administrative data obtained through government reporting systems, but without any verification mechanisms, these data are prone to district gaming. Even when data are available, their accessibility is at times still an issue. For example, disaggregated data on road quality is not easy for the public to obtain. Recent developments in the education sector appear to be encouraging. Starting in 2015, the Ministry of Education has implemented computer-based national exams and published their results on the Ministry's website. This reform will improve the reliability and accessibility of the data on student learning outcomes.

Large discrepancies between indicators generated from SUSENAS and district owned administrative data reduce the usefulness of the indicators for program planning at the district level. For example, in Bojonegoro, East Java, the gross enrolment rate for senior secondary schools in 2012 is 58 percent according to SUSENAS. However, district owned administrative data—which is based on individual forms submitted to education office with civil registry data as the population denominator—suggested that the rate is about 78 percent. This 20-percentage point difference triggered the discussion over which figures should be used for planning purposes. SUSENAS, being independently generated by the National Statistics Agency (BPS), and using relatively robust statistical sampling procedures, is considered as reliable enough to be used for tracking progress by the central government. However, due to large discrepancies with data collected locally through administrative channel which purportedly cover all relevant population, SUSENAS statistics tend to have less credibility with local governments.

Lack of detailed data on spending. Detailed data on local government spending should be available through the Regional Financial Information System (SIKD), but the system to date is unable to publish spending data below sectoral disaggregation. The lack of detailed disaggregated spending data prohibits thorough analysis on the efficiency and effectiveness of local government spending.

Data on Governance and Institutional Quality are very spotty. There are only a few data sources that could be drawn upon to compare governance and institutional quality across all local governments. One of the few is the BPK audit, which largely measures the compliance of local governments to financial reporting standards and the adequacy of internal control systems. However, as majority of local governments tend to receive good audit results, it has become less useful as a comparative measure of governance quality. Other potential data sources include performance evaluations conducted by the Ministry of Home Affairs (MOHA) and the Ministry of Administrative and Bureaucracy Reforms (KemenPAN-RB). Unfortunately, detailed data for these evaluations are not accessible to the public. What remains are a few datasets generated through surveys by local research institutions or NGOs. One example is the survey on economic governance by KPPOD (Regional Autonomy Watch). However, the survey is not conducted regularly and does not cover all districts. The last KPPOD survey with a wide coverage of districts was in 2011, which covered 245 districts. After this, KPPOD conducted another survey on economic governance in 2016, but only covered provincial capitals.

The following section examines the levers that the central government can use to induce improvements in local government service delivery performance, and subsequently discusses what local political dynamics are likely to influence local government performance, and what opportunities are there to align political incentives to deliver services more effectively.

b. How do we move the needle on local government performance?

Central government can use a variety of mechanisms to

As the preceding sections show, local governments vary significantly in their effectiveness in translating public spending into citizen services. Experience from around the world suggests that clarity about expected standards of performance,

improve local government accountability and performance	adequate financing, well-functioning core systems for managing finances and staff, adequate alignment of incentives and systems of accountability all matter. Accountability mechanisms fall into two broad categories—*top-down accountability* mechanisms that facilitate accountability by local leaders and governments *upward* to higher-level governments; and those which facilitate greater *bottom-up accountability* by local leaders and governments *downward* to local citizens and civic organizations.
This can be done through top-down and bottom-up mechanisms	Top down accountability systems involve local governments reporting on their performance to the central government as the basis for central government intervention. Reporting requirements are usually imposed by regulation, and are most successful when leveraged by transfers from central government. Bottom-up accountability works through political markets. Local citizens are expected to reward leaders that perform well in terms of service delivery and inclusiveness. Central governments can support bottom-up accountability by requiring local governments to include citizens in decision-making and to publicly inform their plans and performance. Top down accountability systems can also support bottom-up accountability by making comparative performance of local leaders available to the public. The next three sections examine two types of top down accountability mechanisms in place in Indonesia, and then at the context for enabling better bottom up accountability.

i. Top-down accountability system: monitoring, evaluation and incentives

Three main oversight mechanisms are used to evaluate and incentivize local government performance	Three Ministries have the mandate to evaluate overall or cross-sectoral performance of local governments: 1) Ministry of Home Affairs (MoHA), 2) Ministry of Administrative and Bureaucracy Reforms (KemenPAN-RB), and 3) Ministry of Finance (MOF). Each ministry imposes different reporting requirements on local governments. Under these systems, local governments are obligated to submit separate annual reports on their achievements to central ministries, and each is subject to evaluation against different indicators (Table 6). Some key questions are used to evaluate the strength and weaknesses of these systems, such as: are the indicators meaningful to assess performance, does it provide signals as to where local governments are weak or strong, does the system promote healthy competition among local governments, is the information used for intervention from central government, and is the information publicly available.

Table 6: Summary of key cross-cutting local government monitoring & evaluation systems

Agency	M&E System	Thematic Coverage	Source of Data	Uses of M&E results	What data is made publicly available
Ministry of Home Affairs	Evaluation of Local Government Implementation (EKPPD)	All aspects of local government implementation (*Policy Making; Policy Implementation; Performance Achievements* (*158 Indicators*))	Self-reporting by local governments (LPPD)	Scoring and ranking of Local Government leaders. 3 best provinces, 10 best districts and cities receive Presidential Awards. It is planned to conduct a capacity assessment and training for weak performers.	Information on the aggregate scores and ranking is available at http://otda.kemendagri.go.id/FormMenu/Daftar EKPPD Data on aggregate scores is available, but not at the indicator level.
Ministry of Administrative & Bureaucracy Reform	Evaluation of Government Institution Performance Accountability System (SAKIP) implementation	4 components on *Performance Management* (Performance Planning, Performance Measurement, Performance Reporting, and Evaluation), and 1 component on *Performance Achievement*	Self-reporting by local governments (LAKIP)	Scoring and ranking of Local Governments, identification of improvement areas	Information on the aggregate scores and ratings is available at http://evalrbkunwas.menpan.go.id/kabupaten/home.php Data on aggregate scores is available, but not at the component level.
Ministry of Finance	Ranking of Fiscal Health and Regional Financial Management, and Allocation of Regional Incentive Fund (DID)	*Minimum Conditions* (Audit opinion, Budget submission); and *Performance Measures* (Fiscal health, Basic service delivery, and Economic and social welfare performance (*22 Indicators*))	MOF's Regional Finance Information System (SIKD) for fiscal data; secondary data from BPS for performance data	Local governments meeting minimum eligibility and performance criteria receive the Regional Incentive Fund (DID) allocation. *21 provinces and 296 districts and cities received DID in 2017, ranging from Rp.7.5b-65.3b*	Information on the total DID allocation amount received by the local government is available on the DG Fiscal Balance website. Data and information on the evaluation results or indicators are not available.

Source: MoHA for EKPPD; KemenPAN-RB for SAKIP; and MoF for DID

Monitoring and evaluation from MoHA (EKPPD)

The MoHA evaluation of local governments (EKPPD) is focused on local leaders' performance…

Under the EKPPD evaluation managed by MoHA, local leaders submit annual accountability reports to three different audiences: the central government (LPPD), the local parliament (LKPJ), and the public (ILPPD). Local leaders are evaluated on their achievement in implementing various local government functions, including basic service delivery—both service *access* indicators, such as household water and sanitation, as well as some *quality* indicators, such as district road conditions. The aggregate results are used to give recognition to the heads of the top three provinces and the top ten cities and districts in the form of Presidential Awards, naming the bottom performers, as well as those that did not submit reports.

…but the system is less effective in either illuminating strengths and weakness, or stimulating healthy competition to improve

The results of the MoHA annual evaluations show positive improvements in local government implementation between 2010 and 2015, with the result that in 2015, 93 percent local governments evaluated were rated *High* or *Very High* (Figure 53). The ratings range from Low for aggregate scores 0-1, Moderate for 1-2, High for 2-3, and Very High for 3-4. However, three aspects of the design of the EKPPD undermine its effectiveness. First, the sheer number of indicators dilutes the signals on performance priorities and makes it challenging to understand the strengths and weaknesses of performance in a specific sector. Second, because almost all

subnational governments receive a "high" or "very high" rating, it is hard to show the variations and gaps in fiscal and service outcomes among the regions. Third, only the aggregate scores are made public which is not very helpful for citizens to demand performance improvements. The current review of the evaluation framework undertaken by MoHA in the context of the regulatory revisions to implement Law No. 23 of 2014 is an opportunity to improve its effectiveness.

Figure 53: EKPPD and SAKIP performance evaluation results 2010-2015
(EKPPD for the left chart, percent of districts; SAKIP for the right chart, percent of districts)
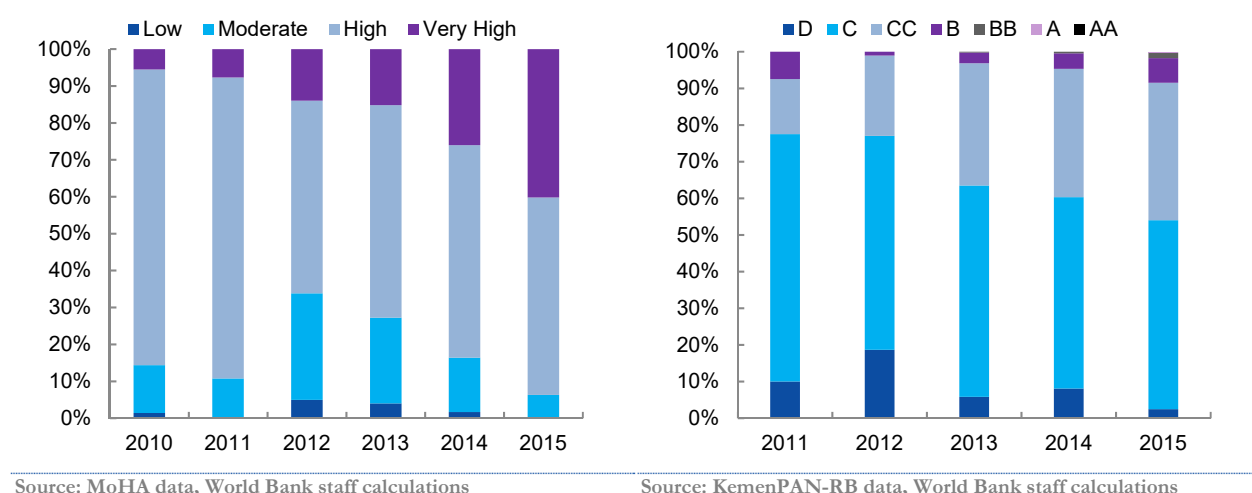
Source: MoHA data, World Bank staff calculations   Source: KemenPAN-RB data, World Bank staff calculations

Monitoring and evaluation by KemenPAN-RB (SAKIP)

The KemenPAN-RB evaluation uses a more objective approach, but it is not clear how the results translate into incentives, sanctions or capacity building

The KemenPAN-RB evaluates local government reports (SAKIP)[66] with the aim of promoting results-oriented performance management and innovations in service delivery (Figure 53). Local governments submit annual performance reports (LAKIP) as part of their accountability to the central government for service delivery. The report includes detailed programs and activities, financial realization against plans, and actual achievements against targeted outputs/outcomes. KemenPAN-RB is supported by the Provincial government's inspectorates (internal audit) and BPKP[67]—the government's internal auditor—in conducting the review and evaluation, which focuses on four components of performance management (Table 6)[68]. Regions with top scores receive favorable mentions. However, the results are not yet tied to resource allocation decisions or performance incentives. The KemenPAN-RB website promises access to data on individual indicators, but the actual data has not yet been loaded.

Monitoring and evaluation by MoF (DID)

The Regional Incentive Fund (DID) links performance

In 2010, the Ministry of Finance introduced the Regional Incentive Fund (*Dana Insentif Daerah/DID*), a transfer based on the assessment score achieved against MoF's local government ranking framework. The framework includes indicators of fiscal health and regional financial management, basic service delivery, and economic and

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[66] http://evalrbkunwas.menpan.go.id/index.php/site/kabupaten

[67] BPKP is responsible for conducting internal audits with respect to accountability for the use of state funds in specific cases, including: (i) activities of a cross-sectoral nature; (ii) activities involving the use of Treasury funds based on a determination by the finance minister as the Chief State Treasurer; and (iii) other activities based on an assignment from the President.

[68] Ratings range from Highly Satisfactory (AA) for scores 90-100 to Highly Deficient (D) for scores 0-30.

evaluation explicitly to financial rewards

social welfare performance. Local governments receive additional resources if they meet "minimum eligibility criteria" by having an unqualified or qualified audit opinion by the Supreme Audit Agency (BPK) of the local government financial reports (LKPD), passing the local budget on time, use of e-procurement (introduced for 2018 allocation). In 2016, basic public service performance was a key evaluation area, with 7 out of 22 performance indicators focused on improvements in *service access* for education, health and infrastructure. The number of regions receiving DID allocations has increased over time to 317 sub-national governments in 2017, compared to 54 in 2010.

Although the amount of the reward may be too small to have much incentive effect…

However, the amount allocated through the DID is relatively small. Even though the amount of DID has increased over five-fold since its introduction, total allocation of IDR 7 trillion in 2017 only accounts for on average of around 1 percent of total subnational transfers, and less than 5 percent of funds not tied to salaries or mandatory spending (Figure 54). The base allocation for the DID is not calibrated to the size of the district population or its budget, so the allocations will have a very different incentive impact, depending on the size of the local government budget. For more than half the local governments that received DID, it amounted to less than 1 percent of their total revenues.

Figure 54: Number of districts by DID allocation as a share total local government revenue in 2017
(number of districts)
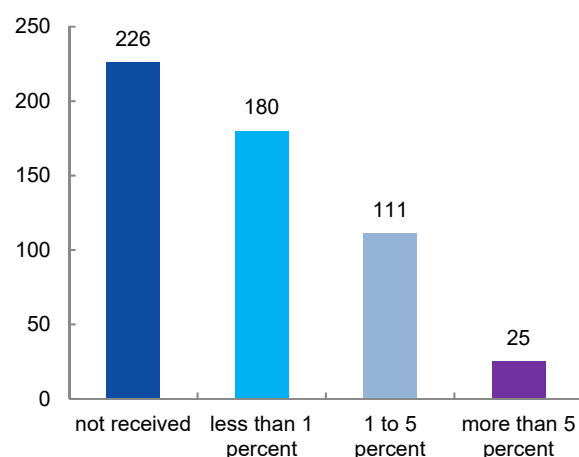
Source: MoF data, World Bank staff calculations

…it appears to be correlated with improvements in minimum standards of financial management and governance

Over the period since DID was introduced, the number of local governments meeting the minimum conditions have increased significantly; local government financial reports receiving unqualified opinion (WTP) increased from 13 percent in 2011 to 70 percent in 2016. In 2005, the number of local governments achieving unqualified audits was only 5 percent (Figure 55). Several factors appear to be behind this sharp increase over a relatively short period of 10

Figure 55: Number of local government by their audit results
(number of districts)
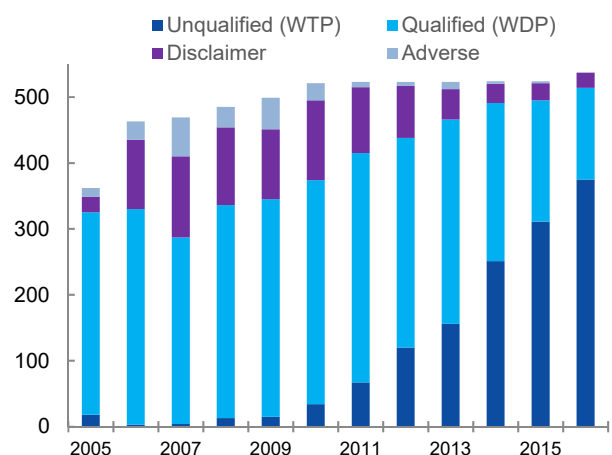
Source: BPK Report
Note: The result covers all audits on subnational governments including provinces and districts/cities

years: more trained local government staff, the involvement of BPKP[69] to provide technical assistance to local governments, more detailed guidelines issued, and new financial incentives for achieving good audits. As more local governments are meeting the minimum criteria, the MoF has raised the threshold for the 2018 DID allocation by requiring unqualified audit opinion (qualified audits are no longer eligible) and the use of e-procurement. This helps ensure the system remains relevant as a comparative measure of performance. However, as more local governments consistently achieve unqualified audits and BPK audits focus on a narrow range of weaknesses defined by non-compliance with the regulatory framework, more nuanced measures are needed to identify poor spending, including analysis of local government spending using the techniques of public expenditure analysis. At present, detailed data on subnational spending required for public expenditure analysis is not available (Box 6).

However, aspects of DID design are likely to undermine its potential to influence quality of service delivery

Three aspects of DID design are likely to undermine its potential to influence quality of service delivery. First, like the EKPPD, the DID indicators are aggregated to a single score (AA+ to DD-). This blurs signals about performance, making it difficult for local governments to know which aspect of performance (financial management, or delivery of specific service) is driving a good aggregate score, or a bad one. Second, some of the performance indicators are unlikely to show change quickly even if the local government puts in a significant effort to improve. For example, stunting prevalence will be included as an indicator for 2018 allocation, but even if local governments go through great lengths to deliver nutrition related programs, this indicator is unlikely to show any change within a single grant cycle. Third, some indicators still measure outcomes which are beyond the direct control of local governments, like poverty.

Regular evaluations can help establish the impact of performance systems and improve their effectiveness

The central government faces a mammoth task of providing oversight of more than 500 subnational governments, within its limited resource envelope. In this context, the Provincial governments and BPKP can play a greater role in providing oversight and verification of performance, as well as developing the capacities of local governments within their jurisdiction. The three existing systems which focus on different aspects of local government performance at the whole-of-government level do not appear to reinforce each other and each produces a different list of top performing districts and cities. The systems could be evaluated to better understand their value in driving improved performance, whether through incentives or through better targeting of interventions, including capacity building.

Other examples of performance-based transfers

Another example of performance-based transfers is the Local Governance Reform…

From 2005-2010, Indonesia piloted a performance-based transfer in 40 districts (later reduced to 14) under the Initiative for Local Governance Reform (*Prakarsa Pembaharuan Tata Pemerintah Daerah*, or P2TPD).[70] The transfer was aimed at incentivizing local governments to improve basic financial management, citizen participation and transparency, and poverty reduction. To receive the performance reward, districts were required to achieve against specified reform initiatives. An independent review at the end of the program found that the design had been too complex given the weak capacity of local governments. The original design proposed to measure progress in 67 areas but was reduced to 14 after being reviewed. These findings highlight the risks of trying to do too many things with a single transfer,

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[69] BPKP is the central government audit agency that have almost similar function as government internal audit agency, as opposed to BPK which is independent agency
[70] The pilot was implemented with financing from the World Bank and other donors.

diluting its overall impact. By defining the eligibility criteria more narrowly, the central government could provide stronger signals about expected performance; focusing specifically on financial management improvements.

… the Local Government and Decentralization Project…

More positive lessons can be drawn from the Local Government and Decentralization Project (*Proyek Pemerintah Daerah dan Desentralisasi/P2D2*) supported by The World Bank. The project aimed to improve accountability and reporting related to central government's Specific Purpose Grant (DAK) within selected local governments and financed rewards to districts that achieved good performance in procuring and implementing DAK. Performance achievements were independently verified by the government's internal auditors, BPKP. Incentive payments took the form of reimbursing the 10 percent district contribution to the financing of each sub-project, based on an objective "unit reference cost" for each project type. Districts which participated in the project demonstrated increased capital spending, improved service access, and better audit outcomes. An impact analysis suggested that the main effect of P2D2 incentive payments was to encourage districts to join the project in the first instance, but that the driving force behind improved local government performance on capital spending, service access, and audits was the output verification carried out by BPKP.[71] Ministry of Public Works, which supervised the performance assessments, was able to use the performance information collected to inform more strategic and targeted use.

…and the water *hibah* program

Water *hibah* is another successful Indonesian experience that could inform the design of performance-based financing mechanisms. It uses an output-based grant linked to infrastructure investments. Participating local governments are reimbursed for water connections to poor households, with connections being independently verified. Between 2014 and 2016, almost IDR 1.4 trillion was reimbursed to local governments from both donor and government sources, and more than 600,000 new household water connections were implemented. An important feature of the *hibah* is the division of labor between the MoF and the relevant line ministry. The line ministry which understands the technical area is responsible for supervision and ensuring that achievement of outputs is verified, which then triggers the disbursement by MoF.

ii. Bottom-up accountability system: Creating enabling conditions for democratic accountability

Decentralization was intended to increase the accountability and responsiveness of local governments to citizens through the political process

Top-down accountability mechanisms, like those described above, to a certain extent address the failure of local, bottom-up accountability mechanisms. The expected benefits of political decentralization include improved local service delivery and better governance due to greater proximity between the elected leaders and their constituents. However, whether or not these development objectives are likely to be achieved—especially for the poor and marginalized—depends on the extent of capture of local governments, and the institutional capacities at the local level[72]. If local governments are more prone to capture by elites than the central government due to weak political accountability mechanisms, decentralization is less likely to

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[71] World Bank (2017f).
[72] Bardhan (2002).

improve service delivery outcomes[73]. Indeed, experience with decentralization in many countries has produced mixed results in realizing these benefits[74].

Elections help to strengthen accountability and responsiveness of elected leaders…

Electoral processes are the primary vehicle for local accountability. When effective, they can help stimulate improvement in the level and quality of public goods and services by selecting and sanctioning leaders based on their performance. However, such electoral accountability mechanisms can fail to function, when elected leaders are not able to make good policy choices or adopt sound technical solutions, as they are constrained by *adverse political incentives*—e.g. fear of losing support of political parties or economic elites—and *perverse behavioral norms*—e.g. prevailing corrupt practices[75]. This is often the case in environments with low capacities and weak governance conditions.

…but local political dynamics in Indonesia may predicate against the leaders who are most likely to deliver effectively

There is evidence of district-level political dynamics that undermine selection of leaders based on their developmental performance. Incumbent leaders appear to have an overwhelming advantage over their challengers, regardless of their actual performance, due to their visibility and name recognition in office and their control over public resources and apparatus. Incumbents running for re-election increase expenditure budgets—particularly for discretionary administrative spending—with a view to raising their popularity but not necessarily to improve overall fiscal outcomes or service deliveries[76]. Pierskalla and Sacks (2017) find a reduction in capital expenditures during election years, because local politicians and bureaucrats have incentives to avoid heightened scrutiny by the public and media—which may limit rent-seeking opportunities from capital investment projects for corrupt officials, and generate fears of false accusations for honest ones. Political fragmentation in the district parliaments (DPRDs) may also increase "pork barrel"[77] expenditures and impede improvements in service outcomes. Recent research by Lewis (2017b) shows that each additional political party in the DPRD leads to an increase in infrastructure spending of the "pork barrel" variety—i.e. used for patronage purposes rather than improving a typical citizen's access to services, such as household access to water and sanitation facilities and village access to paved roads.

Directly elected local leaders perform better than those appointed by the local parliament (DPRD)

Local governments with elected heads spend less but they spend better, compared to districts with appointed executives[78]. In particular, elected executive-led districts deliver education, health, and infrastructure services more efficiently. Elected mayors also appear to be generally more responsive to citizens than the local parliament (DPRD) members. This may be because they are more visible to voters and can therefore be held accountable more easily than the latter who are able to hide behind their political party affiliations[79].

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[73] As discussed in the 2004 World Development Report on Making Services Work for Poor People, political decentralization was to strengthen the voice of citizens to demand accountability from political leaders and public officials, i.e. the "long route" in the accountability triangle between citizens, politicians/policy makers, and service providers. In contrast, where political accountability is weak, citizens might also address public service delivery problems through collective action to influence frontline providers directly. Strengthening this "short route" of accountability can improve service outcomes.
[74] Smoke et al (2013).
[75] World Bank (2016).
[76] Sjahrir, et. al (2013) and Skoufias, et. al, (2014).
[77] Pork barrel spending refers to local government project expenditure that generates benefits for a select subset of the citizenry.
[78] Lewis (2016).
[79] von Luebke (2009).

Enabling-environment aspects in bottom-up accountability system

Public disclosure of information on the elected leaders' performance is the key enabling environment factor

Timely public disclosure of relevant information on the performance of elected leaders can reduce information asymmetries in political processes and equip the voters to assess them[80]. Thus, aligning the timing of information disclosures with the political process is also important[81]. The media can also play a critical role in making information about the performance of public officials accessible to the public. Ferraz and Finan (2007) found that in Brazil disclosure of municipality audit results prior to elections significantly reduced the likelihood of corrupt public officials getting re-elected, and that the media—local radio stations in this case—played a key role in reducing information asymmetries.

c. Aligning incentives to promote developmental performance by local leaders and public officials

Alternative mechanisms beyond elections are needed…

Alternative mechanisms beyond elections are needed to enable more frequent interactions by citizens, such as participatory planning and budgeting, citizen feedback mechanisms, complaints and appeals systems.[82] Experiences from the field in Indonesia also suggest the improved performance of public services is influenced by factors, such as: participatory government programs to better target citizens' needs, especially for lowest income groups; public communication and outreach of government programs; and transparency of public fund management, especially those related to public service provision[83].

…and incentive systems can be designed to promote developmental performance by local leaders and public officials

The following presents recommendations on how to design incentive systems to promote developmental performance by local leaders and public officials. There are opportunities for the central government to strengthen the use of existing monitoring and evaluation systems and fiscal transfer instruments to incentivize performance- and results-orientation. Further, the central government can also promote greater transparency and accessibility to comparative performance information at the local levels.

There is much government can do to align the incentives of local leaders to deliver better services

Top-down control mechanisms may have been effective in a deconcentrated bureaucratic environment, but they are much less effectives in a decentralized context. The preceding section shows that political accountability mechanisms need to be strengthened and political incentives aligned for local politicians to care about serving their citizens better. What follows are three groups of recommendations for how the central government can maximize and support that motivation, and direct it toward improving local governments' developmental performance. The recommendations cover: i) implementing good practices for evaluating local government performance, ii) embedding results-orientation into fiscal transfers, and iii) promoting more effective citizen engagement.

i. Implementing good practices for evaluating local government performance

Design of evaluation systems matters

Indonesian and international experience suggests that getting performance incentives right is difficult, and design of performance evaluation or assessment systems matters. This section presents five sets of recommendations to inform the future refinement of these systems.

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[80] World Bank (2016).
[81] World Bank (2017f).
[82] Smoke (2015)
[83] World Bank (2013)

Clarity of policy objectives should be the starting point	Systems that measure all aspects of performance in a single index do not offer any obvious next steps in terms of addressing performance gaps, mainly they only lead to rewarding good performers. A well-rounded system for measuring and responding to local performance gaps should include assessments of more focused aspects of local performance, including in specific sectors. Finally, a legitimate policy objective is to encourage local governments that are "ahead of the curve" to improve further, so that they can lead the way for others.

Measuring performance is harder than it looks, and design choices are important

Choice of indicators is crucial	Performance indicators are proxies of actual performance, but they are also an important way to signal to local government leaders and officials what issues are important. Indicators and how they are measured have a profound impact on the effectiveness of incentives: (a) *Be selective—less is more.* Too many indicators weaken the performance signaling, and imposes a major reporting burden on local governments that may in turn lead to weakening of the quality of data, if local governments become less careful about the accuracy of the information they provide. b) *Indicators should be within local government control.* Many of the indicators in the current evaluation systems are influenced by many other factors and therefore not a direct reflection of local government performance. (c) *Measuring functionality of systems and processes is important too.* These measurements help give a better understanding of not only how performance is not improving, but why—and so help inform more targeted interventions. (d) *Indicators should be a timely reflection of performance*, especially for systems that measure changes in performance annually. Outcomes change slowly; even if service delivery performance improves dramatically, it is unlikely this will translate into improved outcome measures within a single year. (e) *Balance measures of absolute performance with incremental improvement.* Weak performers need to be encouraged to continue to strive to do better. If absolute performance is the only measure, some local governments will always be at the bottom of the scoreboard. The most recent evolution of the Regional Incentive Fund (*DID*) incorporates a measure of improvement against past performance.

Make sure performance measurements are credible	Effectiveness of incentives depends on local governments believing that performance measurements are credible and fair. Rules and processes for measuring performance should be transparent and simple, so that local governments and their constituents can readily understand them (Lewis and Smoke, 2008). Performance assessments should incorporate mechanisms to provide independent verification of results, and credible sanctions for local governments that try to cheat the system. One of the three general evaluation systems uses independently sourced data (*DID*), while the other two rely on self-reported information which requires verification by a higher level of government (SAKIP and EKPPD).

Explicitly link performance evaluation to capacity building	Much of the information collected by national ministries does not appear to inform follow-up action. Regular assessments of performance provide an opportunity to discuss with local governments how they plan to improve their performance. Performance indexes—showing how a specific local government has performed relative to its peers—provide credible evidence to inform these performance discussions, and a baseline for comparing at a subsequent assessment if the performance has improved. Performance measurements can also help to target scarce technical assistance resources to the local governments that are most in need. In the LGDP Project, the Public Works Ministry used the performance information

gathered by BPKP to help them to target specific local governments for support with particular aspects of sub-project implementation where they were weakest.

Address institutional sustainability in design

Central government agencies have both limited knowledge of the operational constraints to improved local performance, and a limited number of central civil servants available to focus on performance conversations and capacity strengthening across 508 local governments. There is scope to use provincial governments to carry more of the load of providing supervision and support. The 2004 law on regional autonomy gave Provincial Governors a role in guiding and supervising local governments which was further strengthened when the 2004 law was replaced in 2014, as implemented by some provincial governments, including the Provincial Government of East Java.

ii.   Embedding results-orientation into fiscal transfers

Conditional fiscal transfers are potentially the most powerful tool to influence local government performance

In 2018, more than 25 percent of transfers to provincial and district governments in Indonesia will be conditional. Over the last four years, the government has been converting programs that were run through national line ministry budgets as *dekon* and *tugas pembantuan* (TP)[84] into conditional transfers to local governments such as DAK. Conditional transfers are an increasingly important way to influence local government performance. Indonesia currently has only two performance-linked transfers: the *DID* and the *Hibah*.

More flexible results-oriented instruments are needed to address a range of different purposes

To maximize the scope to drive better performance at the subnational level, a larger and more flexible suite of instruments is needed. Specifically, the *Hibah* could be further developed as an instrument to finance large, local-specific urban infrastructure projects in a highly accountable way. As more instruments are developed to focus on achieving results in specific sectors, the DID could be refocused back to its origins as an incentive to improve public financial management systems—which are a critical process for more effective service delivery. Suggested future reforms for the DID would be to: (i) limit eligibility of local governments to only those which satisfy minimum conditions of having an unqualified audit, (ii) narrow the range of performance indicators to focus on the functionality of key systems that are critical for effective service delivery, such as planning, budgeting and financial management, and potentially expanding to include human resource management; (iii) start with a base allocation that is better adjusted to the relative fiscal capacity of different local governments (a per capita base is the most common approach); (iv) tailor measurement of some indicators to reflect improvement on the district's own baseline (particularly those related to revenue collection); (v) make the detailed performance ratings publicly available in comparative format.

DAK Fisik could be improved with more focus on national priorities, and on results rather than inputs

One way to improve the results-orientation of the DAK is to focus the national priority DAK (*DAK Fisik Penugasan*) on achievement of specific national programs, rather than just specific sectors, so that DAK is specified to "follow programs, not follow functions".[85] Three ways to achieve this are: (i) by assigning DAK to support specific national priorities in the annual work plan (*RKP*), (ii) by specifying the policy objectives of the DAK in the line ministry technical guidelines, and (iii) by requiring

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[84] *Dekon (dekonsentrasi)* and *tugas pembantuan* are special funding arrangements for financing local government or co-administered tasks through line ministry budgets.
[85] In 2016, President Jokowi announced a new approach to linking the plan to the budget under the catch phrase "money follow program, not money follow function" which mandated a stronger link between resource allocation and government priorities, rather than resources being allocated to the administrative structures of government (functions).

local governments to develop plans to implement the national priorities and demonstrate the link between their planned inputs and the objective of the national policy. This would build on the proposal-based approach which was initiated in 2016. To achieve national priorities, *DAK Fisik* (which finances capital inputs) will need to be aligned with *DAK Non-fisik* (which finances recurrent). Achievement of most national priorities relies on both capital and operational inputs.

Data for measuring performance is critical, and the more complex the definition of performance, the more challenging it is to collect accurately

Depending on how performance is defined, different types of data will be needed to measure it (Table 7). Current systems for collecting data on performance are poorly developed. The Ministry of Finance currently requires reporting on budget absorption (level 1 in Table 7), and since 2017 has required data on physical outputs (level 2). The LGDP project required reporting on quality of outputs (level 3), but only in relation to four DAK subsectors. Line ministries play an important role in assessing performance, especially when performance is defined in more complex ways. To play this critical role, line ministries need access to performance data. Although line ministries maintain data systems, they have difficulty getting local governments to comply with performance reporting requirements. The Ministry of Finance has recently taken the step of initiating collection of performance output information through District-based National Treasury Offices (*kanwil*) using a reporting application called OM-SPAN. At present, this system is being used to collect data at level 2 —relating to the number of physical outputs produced. Further work is needed to make this data available to line ministries in a timely way, so that they can use it for performance interventions, and explore the capacity of the system to collect more complex types of performance information.

Table 7: The complex definition of performance

Definition of performance	Type of data required
1) Absorption of budget	Spending at year end
2) Physical output produced	Information on number of outputs constructed
3) Quality of physical output produced	Information on number of outputs constructed and their quality. Could also include quality of systems (e.g. project preparation, costing, procurement and contract management)
4) Capacity or readiness to deliver services (intermediate outcome level 1)	Information on outputs constructed (potentially including information on quality) but also how those outputs contribute to readiness of local government to deliver defined services.
5) Delivery of services (intermediate outcome level 2)	Detailed information on delivery of specific services. Since this information is normally captured by service providers (and therefore vulnerable to gaming) some system of independent verification would be needed)
6) Quality of services (intermediate outcomes level 3)	Information on service quality is normally proxied by indicators such as test results, and relies on there being a credible system that is considered accurate for measuring quality dimensions.
7) Outcomes (such as poverty, reduced maternal mortality, or increased literacy)	Information on outcomes is normally measured by survey, and if linked to annual transfers will require that there are comparable measurements using the same definition across multiple years

Independent verification and oversight mechanisms are vital

Oversight arrangements are crucial to ensuring that performance-based transfers remain credible. The experience in the LGDP project shows the importance of independent verification mechanisms (in this case implemented by BPKP) for robust performance measurement. The incorporation of a strong audit function in the design

of incentive schemes is also important for addressing rent-seeking tendencies[86]. Internal audit units within local governments can also play an important role, especially as they evolve from focusing on procedural compliance to performance audits.

Predictability and consistency over the medium term enhance the prospect of achieving results with DAK

Finally, the way conditional transfers are integrated into the local budgeting process is important. Performance incentives work because they are a "repeated game"— meaning that local governments will enhance behaviors that receive rewards and which are reinforced with an increased reward. To make the most of this positive cycle, there should be some consistency in the rules for DAK from one year to the next. DAK policies are currently unpredictable (different DAK appear and disappear in the national budget from one year to the next) and the technical guidelines (*juknis*) change each year. This unpredictability leads to poor quality spending, both because local governments cannot start the early procurement and because they may have to wait until the budget revision process to have projects incorporated into the budget. Two reforms could improve the prospects of good planning and budgeting of DAK at the local level: (i) commit to national priority programs, incorporating DAK as an avenue for local delivery, over the medium term instead of on an annual basis only; (ii) involve the DPR in policy level discussions on selection of DAK types and seek agreement on early ceilings for key DAK.

iii.   Promoting more effective citizen engagement

Central governments can empower citizens by requiring local governments to create space for citizen engagement, and requiring transparency of fiscal and performance information

Provide local leaders with detailed information about their performance and their comparators

Aggregate or composite performance scores do not reveal much information to local governments about their performance. In addition, performance information is only meaningful if compared to other governments—whether to neighboring regions in the same province, or to other regions of comparable development status. For example, a review of the Comprehensive Performance Assessment (CPA) of local councils in the United Kingdom found positive impacts of using a simple 0- to 4-star rating system to score local government performance[87]. In Burkina Faso, central government publishes an annual report on local government performance, the *Suivi de la Performance Municipale* covering core indicators on institutional capacity and service delivery. South Africa publishes an annual Provincial Expenditure Review which analyses spending patterns by provincial governments.

Access to information should be followed by action

Making relevant information *available* (transparency) in a timely manner is a critical first step, but must be accompanied by other conditions to make this information *accessible* (publicity) and ultimately *actionable* (accountability)[88]. Civic organizations, media, researchers and the private sector can all play a key role in translating and communicating relevant information regarding the performance, or non-performance of elected leaders and public officials. In South Africa, published data on local governments have facilitated the generation of publicly available third party analysis, such as that published on www.municipaliq.co.za.

Local governments can also be required to make fiscal and

In early November 2017, the government enacted a regulation (45 of 2017) on Community Participation in Local Governance. This regulation lays the foundation to require local governments to be more transparent and involve citizens in decision-

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[86] Olken (2007)
[87] Audit Commission (2009).
[88] World Bank, WDR (2017e)

performance information public

making. However, the regulation will need to be operationalized. One way to do that is by requiring local governments to make information on their use of conditional transfers (DAK) available to their citizens. Another way is to require them to publish a "Budget in Brief" version of their budget, and a similar document on their financial statement. Over the last two years, the government of DKI Jakarta has set a good precedent by publishing information on its budget both on its website and in the form of a small booklet (Box 7).

**Box 7: Spending Better in DKI Jakarta**

Citizen-focus Budgeting

DKI Jakarta is the capital city of Indonesia and home to over 10 million people. It is the main commercial hub of Indonesia and contributes about 25 percent of Indonesia's non-oil GDP. The Provincial Government of DKI Jakarta plays an important role in realizing Indonesia's medium-term development goals in boosting economic growth and reducing poverty. DKI Jakarta manages IDR 2 trillion (about USD5.3 billion) of public resources in 2017 or IDR 7 million per capita, the highest per capita spending province in Indonesia. Enhancing transparency, accountability, and citizen empowerment are critical to better understanding citizen demand towards improved service delivery in DKI Jakarta.

DKI Jakarta, a pioneer in the open government initiative, has been implementing open data and smart city programs since 2014. Budget data and information on development programs are now publicly available. However, much of the information found on the open data website is too complex for most citizens to digest, and this will eventually limit the impact of open data in DKI Jakarta's development.

With the aim to strengthen DKI Jakarta's effort in implementing the open government initiative, the World Bank, through the support of Multi Donor Trust Fund, is providing a two-pronged technical assistance to the Provincial Government of DKI Jakarta for: (i) the development of an *analysis-ready* fiscal dashboard (on-going work); and (ii) the preparation of a citizen budget or *Budget-in-Brief.* The dashboard is designed to enhance the usability of publicly accessible fiscal data to support evidence-based policy making and improve service delivery by transforming non-standardized and complex budget data into an analysis-ready fiscal dashboard. The second technical assistance activity aims at enhancing the capacity of Bappeda DKI Jakarta in developing and producing a *Budget-in-Brief* to increase public awareness and understanding of DKI Jakarta's budget and development priorities through easy-to-understand visual narratives. Bappeda has produced its first *Budget-in-Brief* in 2016, and the 2017 version was delivered in less than a month.
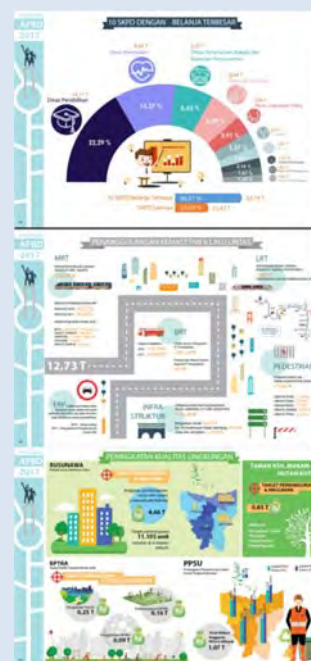
Making data publicly available creates a virtuous circle that leads to improvement of data quality

It is possible that one of the reasons why local government data is not regularly made public is because of concerns about its accuracy. However, lack of publication not surprisingly leads to lack of concern about accuracy, and further deterioration in the quality of the data. Reversing this presumption of data confidentiality would help to improve the quality of data—when data is available for wider use, and more subject to more public scrutiny, it is likely that more attention will be put to making sure it is accurate.

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APPENDIX: A SNAPSHOT OF INDONESIAN ECONOMIC INDICATORS
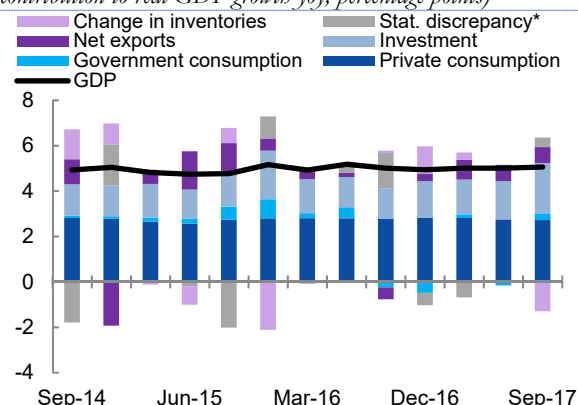
Appendix Figure 1: Real GDP growth
(growth quarterly yoy, percent)
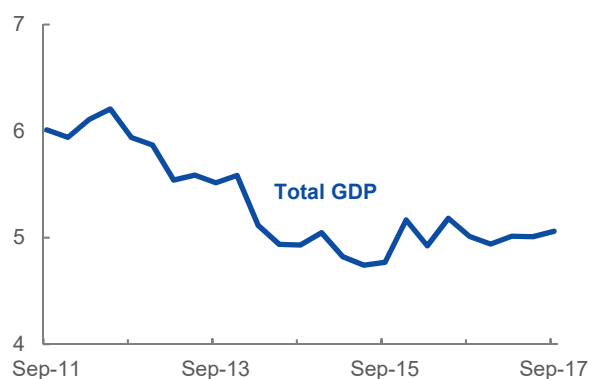
Source: BPS; World Bank staff calculations

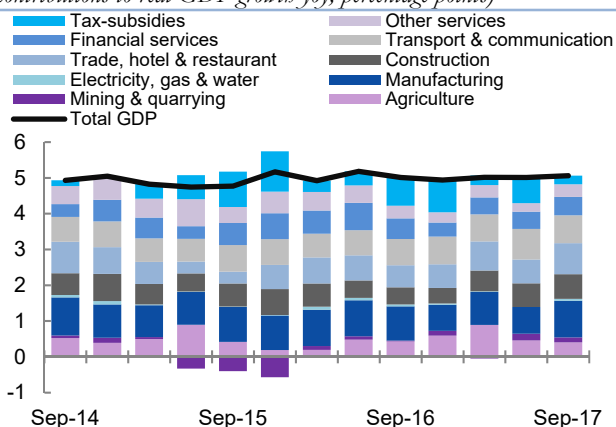**Appendix Figure 2: Contribution to GDP growth (expenditure)**
(contribution to real GDP growth yoy, percentage points)

Source: BPS; World Bank staff calculations

Appendix Figure 3: Contribution to GDP growth (production)
(contributions to real GDP growth yoy, percentage points)

Source: BPS; World Bank staff calculations

Appendix Figure 4: Motorcycle and motor vehicle sales
(growth yoy, percent)
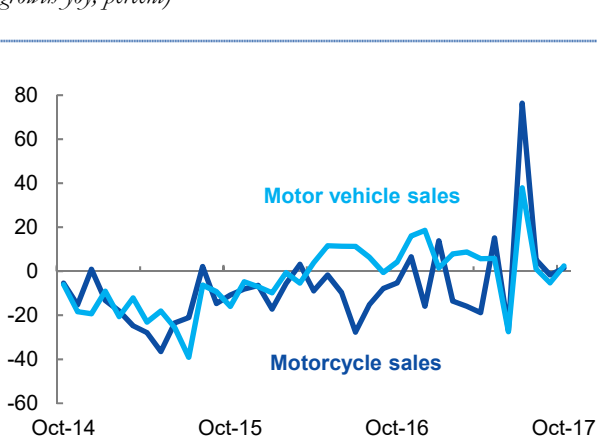
Source: CEIC; World Bank staff calculations

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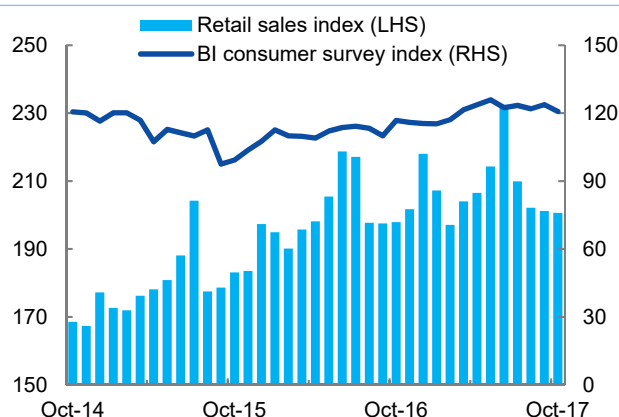
Source: BI

Appendix Figure 6: Industrial production indicators and manufacturing PMI
(PMI diffusion index; industrial production growth yoy, percent)
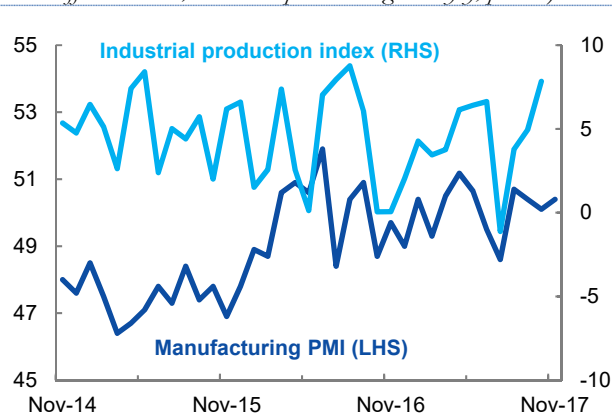
Source: BPS; Nikkei/Markit; World Bank staff calculations

Appendix Figure 7: Balance of payments
(USD billion)
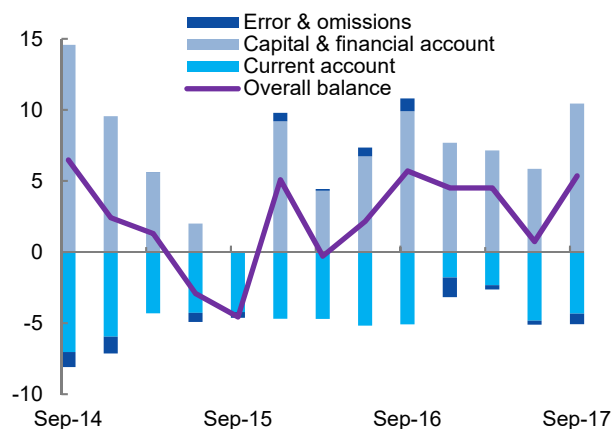
Source: BI

Appendix Figure 8: Current account components
(USD billion)
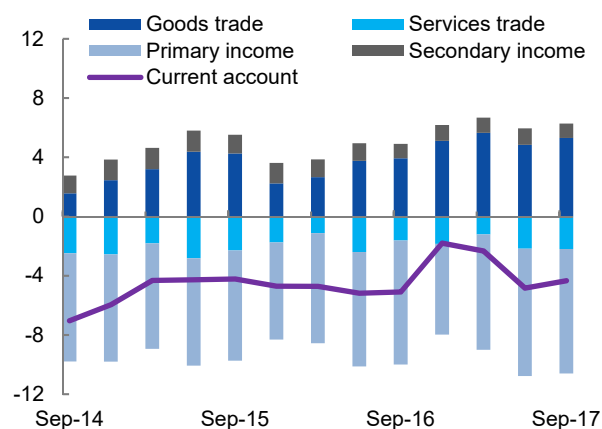
Source: BI

Appendix Figure 9: Exports of goods
(USD billion)
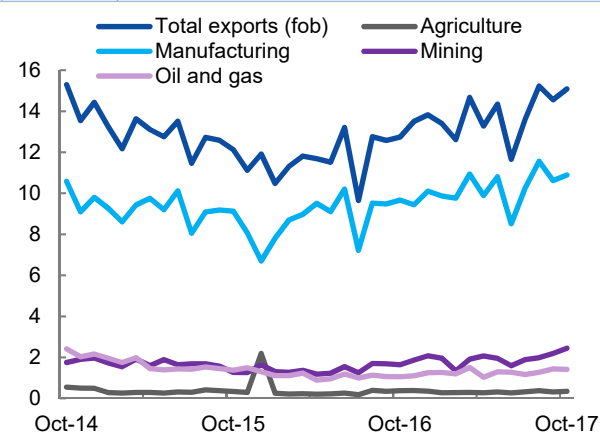
Source: BPS

Appendix Figure 10: Imports of goods
(USD billion)
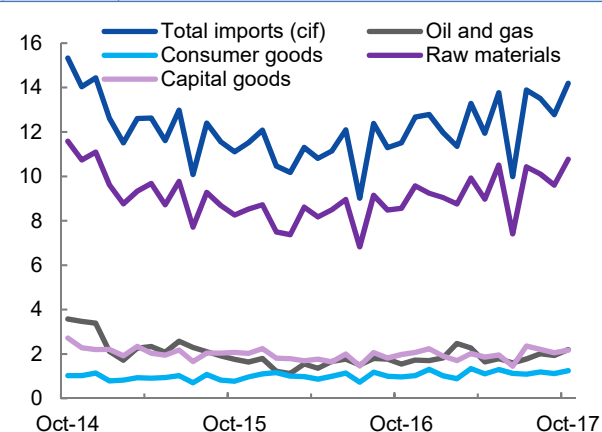
Source: BPS

Appendix Figure 11: Reserves and capital flows
(USD billion)
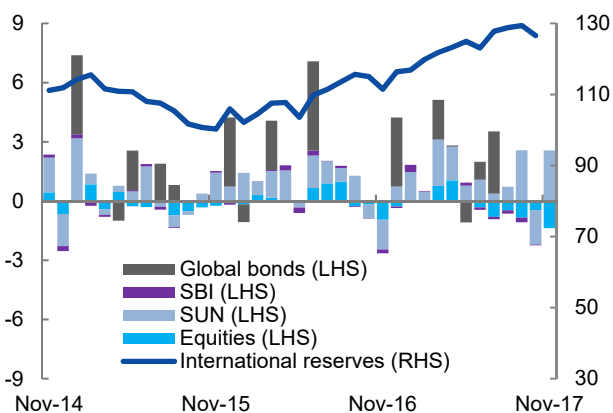
Source: BI; Ministry of Finance (MoF)
Note: SUN is government securities, SBI is BI certificates

Appendix Figure 12: Inflation
(growth yoy, percent)
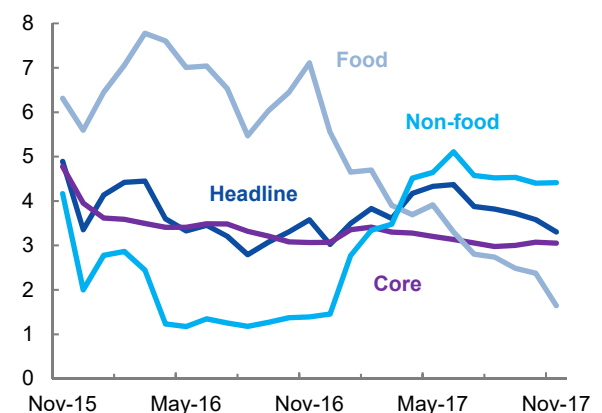
Source: BPS; BI; World Bank staff calculations

Appendix Figure 13: Monthly breakdown of CPI
*(contribution to growth yoy, percentage points)*
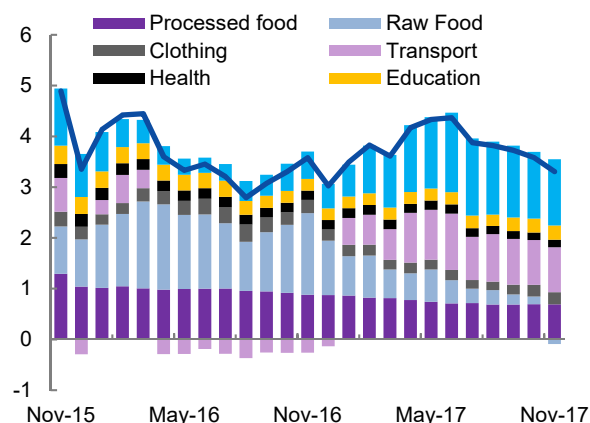
Source: BPS; World Bank staff calculations

Appendix Figure 14: Inflation comparison across countries
(growth yoy, percent)
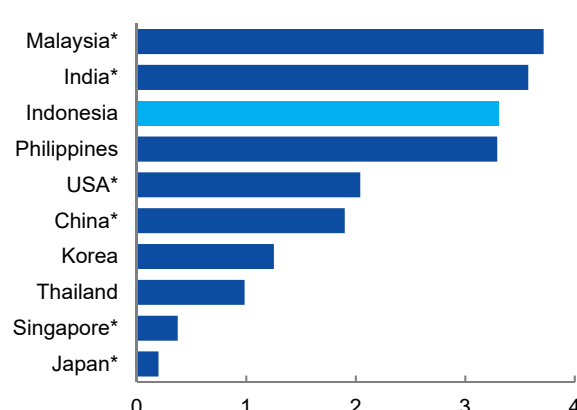
Source: BPS; CEIC; World Bank staff calculations
Note: November 2017 data; *October 2017 data.

Appendix Figure 15: Domestic and international rice prices
(wholesale price, in IDR per kg)
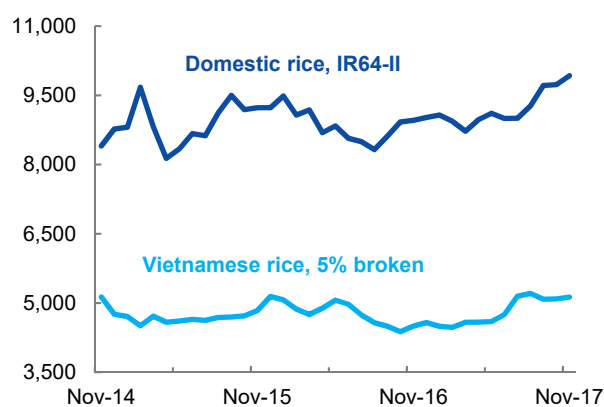
Source: Cipinang wholesale rice market; FAO
Note: "5% broken" refers to the quality of milled rice. 5 percent being the proportion of grains broken during the processing stage.

Appendix Figure 16: Poverty and unemployment rate
(percent)
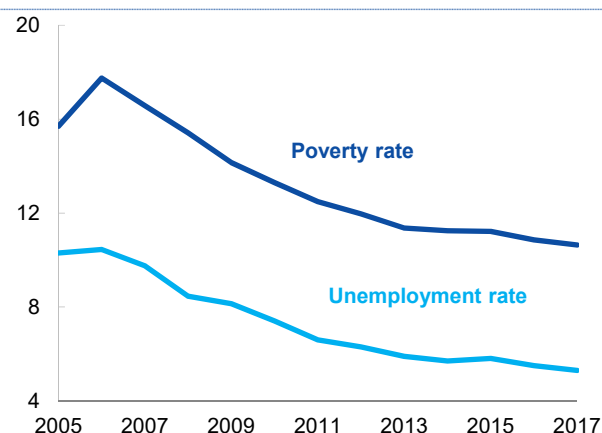
Source: BPS
Note: Poverty line based on national poverty line

Appendix Figure 17: Regional equity indices
(daily index, September 1, 2015=100)
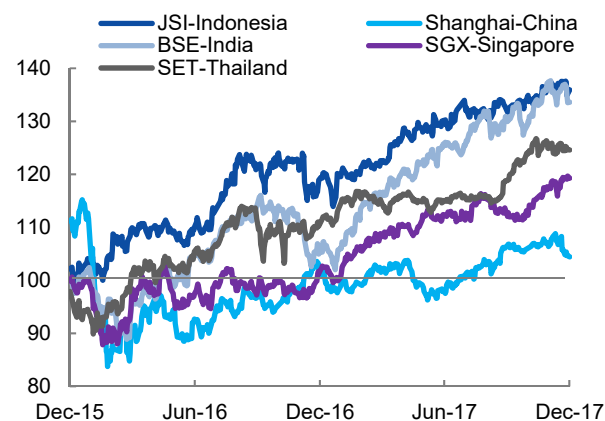
Source: CEIC; World Bank staff calculations

Appendix Figure 18: Selected currencies against USD
(monthly index, August 2015=100)
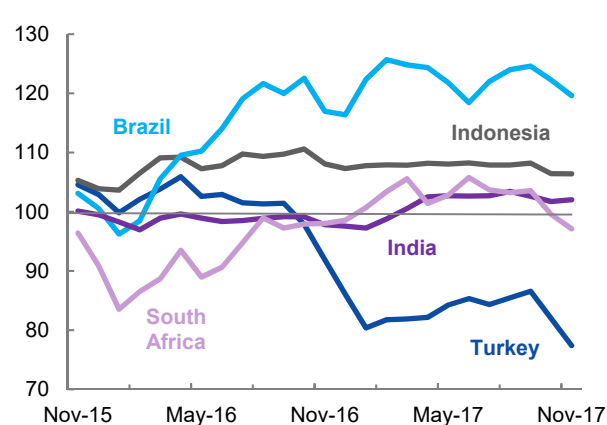
Source: CEIC; World Bank staff calculations

Appendix Figure 19: 5-year local currency government bond yields
(percent)
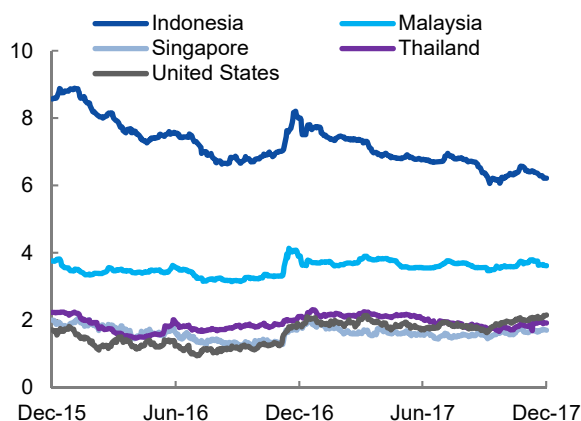
Source: CEIC

Appendix Figure 20: Sovereign USD bond EMBIG spread
(basis points)
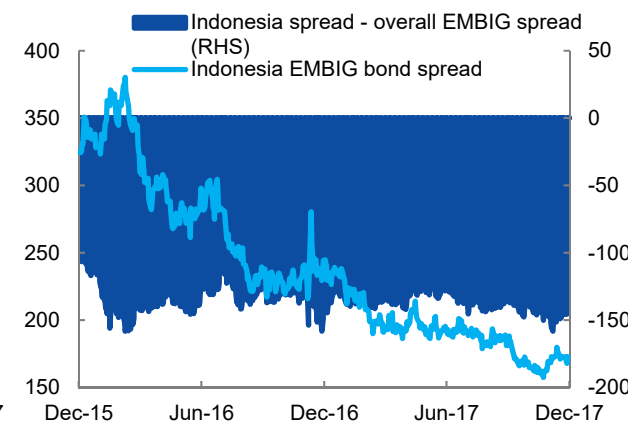
Source: JP Morgan

Appendix Figure 21: Commercial and rural credit and deposit growth
(growth yoy, percent)
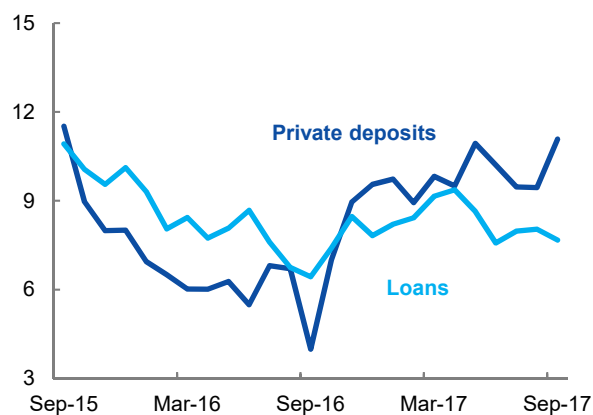
Source: BI; World Bank staff calculations

Appendix Figure 22: Banking sector indicators
(monthly, percent)
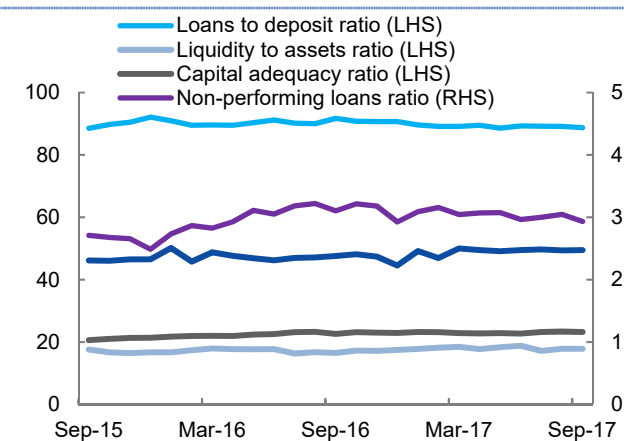
Source: BI; World Bank staff calculations

Appendix Figure 23: Government debt
(percent of GDP, LHS; USD billion, RHS)
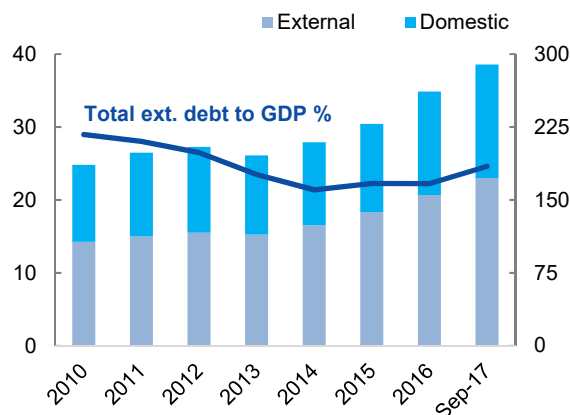
Source: BI; MoF; World Bank staff calculations

Appendix Figure 24: External debt
(percent of GDP, LHS; USD billion, RHS)
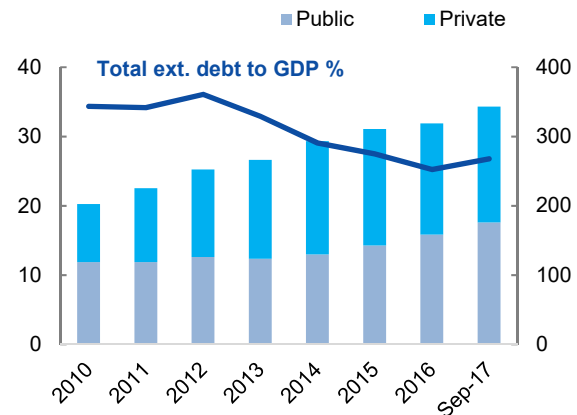
Source: BI; World Bank staff calculations

Appendix Table 1: Budget outcomes and projections
(IDR trillion)

	2011	2012	2013	2014	2015	2016	2017
	Actual	Actual	Actual	Actual	Actual	Actual	Revised Budget
A. State revenue and grants	**1,211**	**1,338**	**1,439**	**1,550**	**1,508**	**1,556**	**1,736**
1. Tax revenue	874	981	1,077	1,147	1,240	1,285	1,473
2. Non-tax revenue	331	352	355	399	256	262	260
B. Expenditure	**1,295**	**1,491**	**1,651**	**1,777**	**1,807**	**1,864**	**2,133**
1. Central government	884	1,011	1,137	1,204	1,183	1,154	1,367
2. Transfers to the regions	411	481	513	574	623	710	766
C. Primary balance	**9**	**-53**	**-99**	**-93**	**-142**	**-126**	**-178**
D. SURPLUS / DEFICIT	-84	-153	-212	-227	-298	-308	-397
(percent of GDP)	-1.1	-1.9	-2.3	-2.2	-2.6	-2.5	-2.9

Source: MoF; World Bank staff calculations
Note: Budget balance as percentage of GDP uses the revised and rebased GDP

Appendix Table 2: Balance of payments
(USD billion)

	2014	2015	2016	2016				2017		
				Q1	Q2	Q3	Q4	Q1	Q2	Q3
Balance of payments	**15.2**	**-1.1**	**12.1**	**-0.3**	**2.2**	**5.7**	**4.5**	**4.5**	**0.7**	**5.4**
Percent of GDP	*1.7*	*-0.1*	*1.3*	*-0.1*	*0.9*	*2.3*	*1.9*	*1.9*	*0.3*	*2.0*
Current account	**-27.5**	**-17.5**	**-16.8**	**-4.7**	**-5.2**	**-5.1**	**-1.8**	**-2.3**	**-4.8**	**-4.3**
Percent of GDP	*-3.1*	*-2.0*	*-1.8*	*-2.2*	*-2.2*	*-2.1*	*-0.7*	*-1.0*	*-1.9*	*-1.7*
Trade balance	-3.0	5.4	8.4	1.5	1.3	2.3	3.3	4.4	2.7	3.1
Net income & current transfers	-24.5	-22.9	-25.2	-6.2	-6.5	-7.4	-5.1	-6.8	-7.5	-7.4
Capital & Financial Account	**44.9**	**16.9**	**28.6**	**4.3**	**6.7**	**9.9**	**7.7**	**7.1**	**5.9**	**10.4**
Percent of GDP	*5.0*	*2.0*	*3.1*	*2.0*	*2.9*	*4.1*	*3.2*	*3.0*	*2.3*	*4.0*
Direct investment	14.7	10.7	16.1	2.8	3.1	6.6	3.5	2.8	4.8	6.8
Portfolio investment	26.1	16.2	19.0	4.4	8.3	6.6	-0.3	6.6	8.1	4.1
Other investment	4.3	-10.1	-6.5	-2.9	-4.7	-3.2	4.4	-2.1	-7.1	-0.4
Errors & omissions	**-2.2**	**-0.4**	**0.3**	**0.1**	**0.6**	**0.9**	**-1.4**	**-0.3**	**-0.3**	**-0.7**
Foreign reserves*	**111.9**	**105.9**	**116.4**	**107.5**	**109.8**	**115.7**	**116.4**	**121.8**	**123.1**	**129.4**

Source: BI; BPS; World Bank staff calculations
Note: * Reserves at end-period

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

	2000	2010	2011	2012	2013	2014	2015	2016
National Accounts (% change)[1]								
Real GDP	4.9	6.2	6.2	6.0	5.6	5.0	4.9	5.0
Real investment	11.4	8.5	8.9	9.1	5.0	4.4	5.0	4.5
Real consumption	4.6	4.1	5.1	5.4	5.7	4.7	4.9	4.3
Private	3.7	4.8	5.1	5.5	5.5	5.3	4.8	5.0
Government	14.2	0.3	5.5	4.5	6.7	1.2	5.3	-0.1
Real exports, GNFS	30.6	15.3	14.8	1.6	4.2	1.1	-2.1	-1.7
Real imports, GNFS	26.6	17.3	15.0	8.0	1.9	2.1	-6.4	-2.3
Investment (% GDP)	20	31	31	33	5.0	4.4	5.0	4.5
Nominal GDP (USD billion)	165	755	893	918	915	891	861	933
GDP per capita (USD)	857	3,167	3,688	3,741	3,668	3,532	3,371	3,603
Central Government Budget (% GDP)[2]								
Revenue and grants	20.8	14.5	15.5	15.5	15.1	14.7	13.1	12.5
Non-tax revenue	9.0	3.9	4.2	4.1	3.7	3.8	2.2	2.1
Tax revenue	11.7	10.5	11.2	11.4	11.3	10.9	10.8	10.4
Expenditure	22.4	15.2	16.5	17.3	17.3	16.8	15.7	15.0
Consumption	4.0	3.6	3.8	3.9	4.1	4.0	4.5	4.6
Capital	2.6	1.2	1.5	1.7	1.9	1.4	1.9	1.4
Interest	5.1	1.3	1.2	1.2	1.2	1.3	1.4	1.5
Subsidies	6.3	2.8	3.8	4.0	3.7	3.7	1.6	1.4
Budget balance	-1.6	-0.7	-1.1	-1.8	-2.2	-2.1	-2.6	-2.5
Government debt	97.9	24.5	23.1	23.0	24.9	24.7	27.4	28.3
o/w external government debt	51.4	11.1	10.2	9.9	11.2	10.2	11.9	11.3
Total external debt (including private sector)	87.1	26.8	25.2	27.5	29.1	32.9	36.1	34.2
Balance of Payments (% GDP)[3]								
Overall balance of payments	..	4.0	1.3	0.0	-0.8	1.7	-0.1	1.3
Current account balance	4.8	0.7	0.2	-2.7	-3.2	-3.1	-2.0	-1.8
Exports GNFS	42.8	22.0	23.8	23.0	22.5	22.3	19.9	18.0
Imports GNFS	33.9	19.2	21.2	23.2	23.2	22.7	19.3	17.1
Trade balance	8.9	2.8	2.7	-0.2	-0.7	-0.3	0.6	0.9
Financial account balance	..	3.5	1.5	2.7	2.4	5.0	2.0	3.0
Direct investment	-2.8	1.5	1.3	1.5	1.3	1.7	1.2	1.7
Gross official reserves (USD billion)	29.4	96	110	113	99	112	106	116
Monetary (% change)[3]								
GDP deflator[1]	20.4	8.3	7.5	3.8	5.0	5.4	4.0	2.5
Bank Indonesia interest key rate (%)	..	6.9	6.5	4.7	6.0	7.9	7.6	7.2
Domestic credit (eop)	..	22.8	24.6	23.1	21.6	11.6	10.4	7.9
Nominal exchange rate (average, IDR/USD)	8,392	9,087	8,776	9,384	10,460	11,869	13,389	13,309
Prices (% change)[1]								
Consumer price Index (eop)	9.4	7.0	3.8	3.7	8.1	8.4	3.4	3.0
Consumer price Index (average)	3.7	5.1	5.3	4.0	6.4	6.4	6.4	3.5
Indonesia crude oil price (USD per barrel, eop)[4]	28	79	112	113	107	60	36	51

Source: [1] BPS and World Bank staff calculations, using revised and 2010 rebased figures. [2] MoF and World Bank staff calculations, [3] BI, [4] CEIC

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

	2000	2010	2011	2012	2013	2014	2015	2016
Demographics[1]								
Population (million)	213	242	245	248	251	254	258	261
Population growth rate (%)	1.3	1.3	1.3	1.3	1.3	1.3	1.2	1.1
Urban population (% of total)	42	50	51	51	52	53	53.7	55
Dependency ratio (% of working-age population)	55	51	51	50	50	49	49.0	49
Labor Force[2]								
Labor force, total (million)	98	117	117	120	120	122	122	125
Male	60	72	73	75	75	76	77	77
Female	38	45	44	46	45	46	46	48
Agriculture share of employment (%)	45	38	36	35	35	34	33	32
Industry share of employment (%)	17	19	21	22	20	21	22	21
Services share of employment (%)	37	42	43	43	45	45	45	47
Unemployment, total (% of labor force)	8.1	7.1	7.4	6.1	6.2	5.9	6.2	5.6
Poverty and Income Distribution[3]								
Median household consumption (IDR 000 per month)	104	374	421	446	487	548	623	697
National poverty line (IDR 000 per month)	73	212	234	249	272	303	331	354
Population below national poverty line (million)	38	31	30	29	28	28	29	28
Poverty (% of population below national poverty line)	19.1	13.3	12.5	12.0	11.4	11.3	11.2	10.9
Urban (% of population below urban poverty line)	14.6	9.9	9.2	8.8	8.4	8.3	8.3	7.8
Rural (% of population below rural poverty line)	22.4	16.6	15.7	15.1	14.3	14.2	14.2	14.1
Male-headed households	15.5	11.0	10.2	9.5	9.2	9.0	9.3	9.0
Female-headed households	12.6	9.5	9.7	8.8	8.6	8.6	11.1	9.8
Gini index	0.30	0.38	0.41	0.41	0.41	0.41	0.41	0.40
Percentage share of consumption: lowest 20%	9.6	7.9	7.4	7.5	7.4	7.5	7.2	7.1
Percentage share of consumption: highest 20%	38.6	40.6	46.5	46.7	47.3	46.8	47.3	46.2
Public expenditure on social security & welfare (% of GDP)[4]	..	0.40	0.40	0.39	0.59	0.53	0.59	0.60
Health and Nutrition[1]								
Physicians (per 1,000 people)	0.16	0.29	..	0.20	..	..		..
Under five mortality rate (per 1000 children under 5 years)	52	33	32	30	29	28	27	..
Neonatal mortality rate (per 1000 live births)	22	16	16	15	15	14	14	..
Infant mortality (per 1000 live births)	41	27	26	25	24	24	23	..
Maternal mortality ratio (modeled est., per 100,000 live births)	265	165	156	148	140	133	126	..
Measles vaccination (% of children under 2 years)	76	78	80	82	81	75	75	76
Total health expenditure (% of GDP)	2.0	2.9	2.7	2.9	2.9	2.8	..	..
Public health expenditure (% of GDP)	0.7	1.1	1.1	1.2	1.2	1.1	1.2	1.4
Education[3]								
Primary net enrollment rate (%)	..	92	92	93	92	93	97	97
Female (% of total net enrollment)	..	48	49	49	50	48	49	49
Secondary net enrollment rate (%)	..	61	60	60	61	65	66	66
Female (% of total net enrollment)	..	50	50	49	50	50	51	51
Tertiary net enrollment rate (%)	..	16	14	15	16	18	20	21
Female (% of total net enrollment)	..	53	50	54	54	55	56	55
Adult literacy rate (%)	..	91	91	92	93	93	95	95
Public spending on education (% of GDP)[5]	..	3.5	3.6	3.8	3.8	3.6	3.5	3.0
Public spending on education (% of spending)[5]	..	20.0	20.2	20.1	20.0	19.9	20.6	20.0
Water and Sanitation[1]								
Access to an improved water source (% of population)	78	85	85	86	86	87	87	..
Urban (% of urban population)	91	93	93	94	94	94	94	..
Rural (% of rural population)	68	76	77	77	78	79	80	..
Access to improved sanitation facilities (% of population)	44	57	58	59	60	61	61	..
Urban (% of urban population)	64	70	71	71	72	72	72	..
Rural (% of rural population)	30	44	45	46	47	48	48	..
Others[1]								
Disaster risk reduction progress score (1-5 scale; 5=best)	..	..	3.3	..	..	..	..	..
Proportion of seats held by women in national parliament (%)[6]	8	18	18	19	19	17	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 (Raskin), health insurance for the poor, scholarships for the poor, and Family Hope Program (PKH) and actuals; [5] MoF; [6] Inter-Parliamentary Union