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 policymakers, business leaders, financial market participants, and the community of analysts and professionals engaged in Indonesia’s evolving economy.

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Executive summary: High expectations

Effective January 1, 2015, Indonesia’s new government took the decisive step of implementing a new fuel pricing system, dramatically reducing gasoline and diesel subsidy costs. This paved the way for the government’s first budget, passed in February, to shift spending towards development priorities, especially infrastructure, the allocation for which is double the 2014 outturn. Successful implementation of the bold vision of the budget, however, will require overcoming administrative constraints to spending and dramatically lifting revenue collection performance. Achieving this, and having the benefits flow through into faster economic growth and poverty reduction, is likely to take time, especially with the pace of sustainable economic growth having slowed, due partly to lower commodity prices. Beyond the fiscal sector, reforms taken in the first months of the government’s term in key areas such as investment licensing also face complex challenges to make operational. The government has signaled its strong reform intentions, and raised expectations. Early progress will now need to be consolidated by effectively implementing major reforms and the budget posture, against a still-challenging global economic backdrop for Indonesia.

The key global economic trends affecting Indonesia’s outlook remain broadly similar to those reported in the previous IEQ. High income economies are strengthening, supported by a continued recovery in the US, gradual acceleration of activity in the Euro Area, and a return to growth in Japan. Economic conditions across developing countries are more varied. For example, India recorded strong output growth in the final quarter of 2014, but other major developing economies contracted or grew only very sluggishly. The outlook is for global growth to continue to pick up over coming quarters, but only moderately from an average 2.5 percent in 2012-14 to 3.2 percent in 2015-17. Global trade growth is anticipated to remain sluggish, suggesting...
that lifting Indonesia’s export performance, which has been hampered by renewed real effective exchange rate appreciation since mid-2014, and weaker commodity demand (notably from China), will remain a challenge.

As lower global commodity prices have pushed down Indonesia’s export revenues, the overall current account deficit has remained relatively sticky, at 2.8 percent of GDP in Q4 2014. An exception is the sharply lower level of global oil prices since June 2014, which is a significant positive for Indonesia’s trade balance given that net oil imports are large (USD 23.9 billion, or 2.7 percent of GDP, in 2014). However, lower global oil prices are also expected to weigh on Indonesia’s export revenues from natural gas (USD 12.1 billion in 2014), capping the expected current account balance gain from the oil price shift seen to date to under 0.5 percent of GDP. Imports have remained subdued, down 9.8 percent year-on-year (yoy) in US Dollar terms on a 3-month moving average basis through January, notably including capital goods (-14.0 percent), historically a good leading indicator for fixed investment.

GDP growth dropped to a 5.0 percent pace in the final quarter, with slow exports still weighing on the economy, and signs of continued downward demand pressures

Indonesia’s economic output expanded by 5.0 percent yoy in the final quarter of 2014, and also at 5.0 percent for the year as a whole, extending the trend since 2012 of moderating growth. The national statistics agency has rebased GDP from the year 2000 to 2010, and revised it in accordance with the latest international standards, resulting in measured output being larger by approximately USD 35 billion in 2014 than previously (a 5.3 percent increase in nominal GDP), and small reductions in recent output growth (by an average of 0.1 percentage points per year from 2011-2014). While domestic demand growth edged higher to 4.4 percent yoy in Q4 2014, real fixed investment growth, at 4.3 percent yoy, remained relatively weak, and a large statistical discrepancy between GDP measured on a production and expenditure basis (up 5.0 and 2.4 percent yoy, respectively) complicates inference. External demand continues to be a clear drag on growth, with net exports subtracting 2.0 percentage points from year-on-year growth. This exceptional weakness owes partly to a very high base of comparison as mineral exports surged at the end of 2013 (ahead of the January 2014 partial ban on raw mineral exports) but, even looking over 2014 as a whole, export volumes increased by only 1 percent. High frequency economic activity data remained soft into the start of 2015.

With inflation and credit decelerating, BI cut key policy rates by 25 basis points in February

Indonesia’s reformed fuel pricing system has allowed lower economic fuel prices to be transmitted quickly to consumers, substantially unwinding the 34 percent average increase in gasoline and diesel prices in November 2014. Consequently, a rare two consecutive months of price deflation occurred in January and February, cutting headline CPI inflation to 6.3 percent yoy, from 8.4 percent yoy in December. Underlying inflation pressures also appear contained, with core CPI holding at just under 5.0 percent yoy in the months through February, while credit growth has continued to decelerate, approximately halving from its highs in 2013, to 11.4 percent yoy in December 2014. Bank Indonesia (BI) cut its overnight deposit facility (FASBI) and reference rates by 25 basis points on February 17.

Despite low inflation overall, rice prices spiked in February

Although overall inflation has moderated, rice prices spiked in February, with retail prices up 12 percent yoy, amidst a significant drop in wholesale stocks. The harvest season is expected to help to reverse this increase, but even if the spike proves short-lived, it conforms to a consistent trend since 2004 of Indonesian rice prices rising at a faster rate than those in international markets. The vast majority of Indonesians are net consumers of rice and are therefore hurt by higher rice prices. Structural factors are negatively affecting Indonesia’s rice production, including
declining operational farm sizes, high labor intensity, poor infrastructure, high logistics costs, and low technological take-up and information flows. In addition, while public spending on agriculture as a whole has increased, spending has been targeted inefficiently, for example on fertilizer subsidies rather than irrigation, or research and extension. Limited and inaccurate information regarding production, consumption, and stocks increase market uncertainty over demand and supply conditions at any one time, raising price volatility. Improving rice market data quality is an urgent need. Finally, government operations intended to smooth prices also create uncertainties about the true available stock and distort the market, for example, the government’s recent signal that it would not increase imports of rice.

In the baseline scenario, GDP growth is expected to remain close to 5 percent in coming quarters, picking up modestly towards 5.5 percent in 2016...

Looking ahead, the World Bank expects GDP growth for 2015 of 5.2 percent, picking up modestly to 5.5 percent in 2016 (Table 1, both unchanged from the prior projections in the December 2014 IEQ). The baseline projection is based on private consumption growth remaining relatively stable, coupled with an acceleration in fixed investment spending to above 6 percent by the first quarter of 2016. Export volumes are expected to stage a gradual recovery but imports will also pick up on the back of the expected firming in investment, including more infrastructure spending. In combination, imports and exports (net exports) are not expected to add to growth over the forecast period through 2016.

...but risks are to the downside

Risks to the baseline growth expectation are to the downside, as ongoing downward pressures on household spending and investment growth from relatively tight credit and profit margin pressures could continue to filter into activity. The key source of upside risk is a faster than expected investment acceleration, but if this is not coupled with improved export growth, external constraints to growth could tighten quickly. Despite reduced net oil import costs, generally weak commodity prices, followed by a pick-up in import demand, are expected to keep the current account deficit close to 3.0 percent of GDP on average over the forecast horizon.

Table 1: Under the baseline scenario, GDP growth is projected at 5.2 percent in 2015

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015p</th>
<th>2016p</th>
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</thead>
<tbody>
<tr>
<td>Real GDP</td>
<td>5.6</td>
<td>5.0</td>
<td>5.2</td>
<td>5.5</td>
</tr>
<tr>
<td>Consumer price index</td>
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<td>6.4</td>
<td>6.5</td>
<td>5.1</td>
</tr>
<tr>
<td>Current account balance</td>
<td>-3.2</td>
<td>-3.0</td>
<td>-3.0</td>
<td>-3.2</td>
</tr>
<tr>
<td>Budget balance*</td>
<td>-2.2</td>
<td>-2.2</td>
<td>-1.9</td>
<td>n.a</td>
</tr>
</tbody>
</table>

Source: BI; BPS; Ministry of Finance; World Bank staff calculations

The improved allocative efficiency of the 2015 Budget is a major positive, but overly ambitious revenue targets mean that expenditures will need to be adjusted

Reflecting the new government’s reform agenda, the 2015 Budget passed in February includes a major expenditure reallocation from fuel subsidies to key development priorities, particularly infrastructure, as well as agriculture, and social programs. This reallocation towards productive expenditures is a major positive development. However, effective execution of the budget will require overcoming administrative constraints to spending and dramatically lifting revenue collection performance. Given expected macroeconomic conditions, especially lower nominal GDP growth and oil prices, a revenue shortfall appears likely. Consequently, fully implementing the new budget stance will take time, and over the course of 2015 the authorities will likely face the challenge of adjusting spending to account for realized revenues. The World Bank’s baseline expectation, therefore, is that the rule constraining the central government fiscal deficit to a de facto maximum of 2.5 percent of GDP will bind in 2015, and that the deficit will be capped at this level by
There has been strong momentum to reform business licensing in Indonesia…

The reallocation of the government budget towards capital expenditures, as well as increased infrastructure spending by state owned enterprises (SOEs, which received an IDR 70.4 trillion capital injection in the 2015 Budget), should provide a welcome boost to investment spending. The government expects significant private sector participation in the drive for more infrastructure spending, and to achieve faster overall fixed investment, jobs and economic growth. However, one of the constraints to investment is the fact that the processes for firms to register their operations and obtain the necessary licenses are complicated, expensive and time-consuming; Indonesia currently ranks 114th out of 189 countries in the ease of doing business, as measured by the World Bank. The new government has put improved investment licensing back at the top of the reform agenda, and initial reform momentum has been strong, including the implementation in January of “one stop services” under the Investment Coordinating Board (Badan Koordinasi Penanaman Modal, BKPM). Complex reform implementation, however, is still needed to achieve more integrated (including across the national and subnational levels) and efficient business licensing, requiring simplification and mapping of the licensing process, information and communications technology improvements, and organizational change and coordination at BKPM and other ministries.

…which would help to lift investment and support faster sustainable growth, estimated to have declined to an annual 5.5 percent, due in part to weaker commodity prices

The challenge to raise investment and growth has been made more acute by the continuing economic headwinds from lower global commodity prices. The World Bank’s estimate of potential output growth in Indonesia, accounting for lower commodity prices, is currently about 5.5 percent per year. This follows a decade during which potential growth was 6 percent or above. A considerable portion of the recent growth slowdown, to 5.0 percent as of Q4 2014, can likely therefore be attributed to a reduction in the potential growth rate, due in part to lower commodity prices, not just a cyclical dip in growth. Consequently, policymakers cannot expect growth to bounce back easily to the higher rates seen over 2010-2012. Instead, major policy reforms and implementation will be required, including in the area of investment licensing discussed above, since the amount and quality of investment spending are critical determinants of sustainable growth.

With the end of the global commodity boom, effective management of Indonesia’s natural resource sector is needed to minimize the risks and maximize the benefits from the sector

Indonesia is rich in hydrocarbons (coal, oil and natural gas), minerals (base metals and precious metals) as well as having abundant agricultural commodities. The significant rise in commodity prices from 2002 to 2012 led to the natural resource sector contributing positively to nominal growth, exports and investment over the 2000s. However, the sector’s impact on real growth, state revenues and local development outcomes was more limited. In the medium term, the outlook for the natural resource sector is challenging – with continued moderation of prices and a projected decline in production, especially in the case of crude oil. It is thus critical that the government develops and implements sector policies to manage vulnerabilities due to the slowdown in the sector and to maximize benefits, in order to harness Indonesia’s natural resource wealth in support of development goals.
A. Economic and fiscal update

1. Global growth is accelerating but commodity price headwinds continue

High income economies are strengthening but the picture for developing economies is more mixed... The key global economic trends affecting Indonesia’s outlook remain little-changed from those reported in the December 2014 IEQ. High income economies are strengthening, supported by a continued recovery in the US and a gradual acceleration of activity in the Euro Area, while Japan also returned to growth in the fourth quarter of 2014. Economic conditions across developing countries are more varied. For example, India recorded strong 7.5 percent year-on-year GDP growth in the final quarter of 2014, but other major developing economies, such as Brazil, Russia and South Africa, contracted or grew only very sluggishly.

...as the effect of sharply lower oil prices is felt... Global oil prices fell sharply over the second half of 2014 and into January 2015 before bouncing higher, to end February 40 percent below their mid-2014 level. This dramatic decline will support global activity in the medium-term but is contributing to diverging economic performances across net oil exporters and importers. Among large oil-importing developing countries, the combined effect of inflation moving towards policy targets, improved current account balances and soft growth has allowed several central banks to cut interest rates since the start of the year. In oil-exporting countries, however, central banks have had to balance the need to support growth against maintaining stable inflation and investor confidence in the face of currency pressures. For Indonesia, a net oil importer whose net oil and gas trade deficit stood at USD 11.8 billion in 2014 (1.3 percent of GDP), the drop in oil prices has significantly lifted the terms of trade and facilitated needed fuel price reform. But as discussed in Section 6 and in Part C, low oil prices also reduce government revenues and pose a challenge for the large energy sector.
Beyond oil, weak commodity prices continue to weigh on Indonesian export revenues. The prices of Indonesia’s major export products have continued to drift lower in the first two months of 2015 (Figure 1) with coal falling 1.3 percent and copper down 11.1 percent. Overall, Indonesia’s major commodities terms of trade is estimated to have edged lower by 1.3 percent over the first two months of 2015. The index has rebounded from its September 2014 low, helped by falling oil prices, but as of February remained 40 percent below its peak of 4 years ago. Falling demand from China for Indonesian imports, notably commodities, has been a source of ongoing downward pressure (Box 2). Despite the only modest deceleration in Chinese GDP growth since 2012 through the end of 2014, Chinese imports from Indonesia have fallen very sharply in US Dollar terms (Figure 2). Accommodative monetary policies in the Euro Area and Japan combined with low inflation are also increasingly contributing to softer import demand and competitive exports from these economic entities.

The outlook is for global growth to continue to pick up over coming quarters, but only moderately from an average 2.5 percent in 2012-14 to 3.2 percent in 2015-17, accompanied by weak trade growth. The slow pace of global trade growth suggests that significantly accelerating Indonesia’s exports will likely not be possible unless the country succeeds in growing its global market share in existing products or entering new markets. Other key features of the lackluster recovery, including accommodative monetary policies in major economies and soft commodity prices are also likely to persist, although financial conditions will tighten gradually. As monetary policy begins to tighten in the United States, capital flows to developing countries are set to moderate. They will, however, slow unevenly across countries, with investors focusing more on country-specific vulnerabilities and differences in economic, political, and monetary policy and growth prospects. For Indonesia, these shifts in capital flows could pose significant challenges over 2015 and beyond.
2. Growth has slowed with no signs of an imminent pick-up

GDP growth in Q4 2014, and for 2014 as a whole, was 5.0 percent…

In the fourth quarter of 2014, Indonesia’s real GDP grew 5.0 percent year-on-year (yoy), similar to the third quarter when it rose 4.9 percent – on the basis of Indonesia’s newly revised and rebased GDP (see Box 1). This took GDP growth in 2014 as a whole to 5.0 percent, down from 5.6 percent in 2013 and marking the slowest annual expansion since 2009, when the economy grew 4.7 percent amidst the 2008/9 global financial crisis.

…supported by domestic demand, especially consumption…

Domestic demand has continued to underpin growth, rising 4.4 percent yoy in Q4 2014, similar to 4.3 percent yoy in the preceding quarter. Considering the main components of expenditures, private consumption rose 4.9 percent yoy and thus contributed 2.8 percentage points to fourth quarter growth, the same amount as in the previous quarter. Government consumption was higher by 2.8 percent yoy in the fourth quarter, up from growth of only 1.3 percent yoy in the prior quarter, and adding 0.4 percentage points to overall GDP growth. Fixed investment was higher by 4.3 percent yoy in Q4 2014, up from its 3.9 percent yoy expansion in the third quarter but still at a subdued level, adding 1.4 percentage points to GDP growth.

…while net external demand weighed on growth in Q4 2014

In the fourth quarter in 2014, goods and services export volumes were lower by a significant 4.5 percent than in the same quarter of 2013. This is a demanding comparison since Q4 2013 saw a surge in export volumes as producers front-loaded exports ahead of the January 2014 imposition of a partial ban on raw mineral exports (see the March 2014 IEQ). However, even looking over 2014 as a whole, exports were up only 1.0 percent. By contrast, import volumes had a much firmer tone in the fourth quarter, rising 3.2 percent yoy, due in part to a temporary boost from higher fuel imports ahead of the November 2014 subsidized price increase. Consequently, weak external demand weighed significantly on the economy in Q4 2014, subtracting 2.0 percentage points from GDP growth year-on-year.

On the production side, the standout feature of Q4 2014 was strong construction sector growth

From the production perspective, primary sector output growth was subdued in the fourth quarter, with agriculture up a low 2.8 percent yoy compared with 3.6 percent in Q3, and mining and quarrying output still weak (up 2.2 percent yoy). In the secondary sector, manufacturing growth softened to 4.2 percent yoy in Q4 2014, down from 5.0 percent yoy in the previous quarter, while the construction sector grew by a robust 7.7 percent yoy in Q4, compared with 6.5 percent yoy in Q3. Amongst the services sectors, weakness was concentrated in the wholesale and retail trade and repairs sector, up at 3.5 percent yoy compared with 4.8 percent growth in Q3 2014, and in the accommodation, food and beverages category (up 4.9 percent yoy compared with 5.9 percent yoy in Q3).

While real GDP growth was stable over H2 2014, other features of the national accounts point to an ongoing moderation in demand growth…

Overall, the last national accounts release of 2014 continued the pattern in recent quarters of gradually moderating GDP growth on the back of subdued investment growth, reflecting in part commodity and export sector weakness and policy responses to maintain macroeconomic stability. While real GDP growth converged on the 5.0 percent level over the second half of 2014, however, there are also indications that downward pressures on demand growth persisted through the end of the year. In Q4 2014, the GDP deflator, the broadest measure of prices in the economy, grew by a low 3.7 percent yoy, down from 5.1 percent in Q3. Measured at current prices, GDP rose 8.9 percent yoy, down from 10.3 percent yoy in Q3. Finally, GDP growth from the production side was an unusually large 2.5 percentage points higher than that measured on the expenditure side (excluding the
recorded change in inventories). A significant discrepancy due to measurement difficulties is not unusual, but the large size of the difference in the fourth quarter would also be consistent with demand lagging supply, to the extent that real final sales fell short of output, which would be a headwind for future output growth.

Figure 3: Private consumption has underpinned growth in the face of weak investment and net exports (contributions to year-on-year GDP growth, percentage points)

Figure 4: Nominal GDP and real final sales point to downward demand pressures through the end of 2014 (growth yoy, percent)

High frequency economic activity indicators also point to continued softening, extending into the opening months of 2015. Vehicle and motorcycle sales contracted 15.6 and 9.7 percent on a three-month moving average basis compared with their year-ago levels (3mma) through January, hampered by relatively tight credit and, by some accounts, anticipation of the November 2014 rise in subsidized fuel prices. Overall retail sales as measured by BI rose 9.2 percent 3mma yoy, well down from 14.4 percent in mid-2014. Cement sales over the 3 months through January were flat compared with their year-ago level, while in the manufacturing sector, the purchasing managers index (PMI) compiled by HSBC fell to 47.5 in February, marking the fourth consecutive month of contraction, and a record low in the nearly 4-year long series. Imports of capital goods, a generally reliable leading fixed investment indicator, fell 14.0 percent 3mma yoy in January.

In the base case GDP growth is expected to pick up only modestly to 5.2 percent in 2015 and 5.5 percent in 2016

Looking ahead, the World Bank expects GDP growth for 2015 of 5.2 percent, picking up modestly to 5.5 percent in 2016 (Table 2, both unchanged from the prior projections in the December 2014 IEQ). The baseline projection is based on private consumption growth remaining relatively stable, coupled with an acceleration in fixed investment spending to above 6 percent by the first quarter of 2016. Export volumes are expected to stage a gradual recovery but imports will also pick up on the back of the expected firming in investment, including more infrastructure spending. In combination, imports and exports (net exports) are not expected to add to growth over the forecast period through 2016. Risks to the baseline growth expectation are to the downside, as ongoing downward pressures on household spending and investment growth from relatively tight credit and profit margin pressures could continue to filter into activity. The key source of upside risk is a faster than expected investment acceleration, but if this is not coupled with improved export growth, external constraints to growth could tighten quickly.
Box 1: Indonesia’s rebased and revised GDP

Indonesia’s national statistics agency (Badan Pusat Statistik, BPS) released quarterly national accounts statistics on February 5. As well as providing data for the final quarter of 2014, this release also incorporated two significant revisions to Indonesia’s GDP statistics: first, it shifted the basis of the computation from the year 2000 to 2010 and, second, it adopted a significantly updated methodology and presentation of the statistics, updating Indonesia’s national accounts from the 1993 System of National Accounts (SNA) to SNA 2008.

As a result of the revisions, Indonesia’s economy looks significantly bigger, and marginally slower growing, than previously believed. Total output in current prices is about 4.4 percent larger than previously estimated in 2014 (and 5.2 percent larger on average over 2010-2014). This is a significant change, adding IDR 448 trillion, or about USD 35 billion at the current market exchange rate, to the estimated size of the economy as of 2014. Roughly a third of the extra measured output is due to the incorporation of new kinds of economic activity under SNA 2008, and about two-thirds comes from more accurate measurements of previously-measured kinds of output, according to BPS. Although the improved measurement of output results in a higher level of GDP, it also results in the measured rate of growth of the economy since 2011 being lower, by a significant 0.3 percentage points in 2011, about 0.2 percentage points in 2012 and 2013, and a marginal 0.04 percentage points in 2014.

GDP is an essential yardstick against which key economic stocks and flows are measured. As a result of the revision, and in the case of fiscal data also the new availability of Q4 2014 GDP, changes to important ratios include:

- The current account deficit (or surplus of investment spending over savings): at USD 26.2 billion in 2014, was equivalent to 3.1 percent of GDP, now a smaller 3.0 percent of GDP.
- The external debt stock: at USD 293.6 billion as of December 2014 (as defined by Bank Indonesia), was equivalent to 34.7 percent of GDP for 2014, now a smaller 33.0 percent.
- The fiscal deficit, at IDR 227.4 trillion in 2014, was 2.3 percent of GDP, now a narrower 2.2 percent. Tax revenues, at IDR 1,143 trillion in 2014, were equivalent to 11.4 percent of GDP, now a lower 10.8 percent.

As the above examples show, the magnitude of the changes to GDP ratios for Indonesia are not large enough to prompt a rethink of economic conditions and risks. In contrast, some recent historical and methodological revisions in other economies have resulted in far greater differences. In April 2014, for example, Nigeria’s GDP revisions approximately doubled the measured size of the economy, causing it to overtake South Africa’s as Africa’s largest.

Beyond the change to top line GDP and hence some major ratios, the revised figures also mark an important step forward in the continual process of improving the statistics tracking Indonesia’s large and rapidly evolving economy. Thanks to the new methodology, more detailed sectoral data are now available, with the number of major sectors rising from 9 to 17. Using the previous sectors as a basis for comparison shows how, under the new estimates, the services sectors collectively account for a larger share of measured output (Figure 5), while the average growth of services sectors in recent years was a little lower than previously measured, except for finance and real estate (Figure 6).
3. Regulated fuel price changes have been the major driver of inflation

Inflation rose sharply at the end of 2014, due to the November 2014 rise in subsidized fuel prices, but underlying inflation pressures have remained contained...

The 34 percent average increase in subsidized gasoline and diesel prices in November 2014 caused inflation to rise sharply, to 8.4 percent yoy in December, up from 4.8 percent yoy in October. This increase, while large, reflects the direct and wider input-cost effect of fuel prices on the overall consumer price index (CPI) level, rather than an increasing rate of price rises over time. This is consistent with the inflation effects of the previous, June 2013, increase in subsidized fuel prices, the large impact of which on price levels dropped out of the year-on-year inflation comparison in July and August 2014, causing year-on-year inflation to fall from 6.7 percent in June 2014 to 4.0 percent in August 2014. Stripping out the estimated impact of the November fuel price rise, underlying inflation pressures have remained contained. Had fuel prices remained unchanged through the end of 2014, headline CPI would have likely risen by 0.4 percentage points over November and December, ending the year close to flat at 4.9 percent.

...and retail fuel price cuts in January have subsequently caused price deflation

Following the fuel price reforms that took effect on January 1, 2015 (see Box 3), the prices of previously subsidized low octane gasoline, and diesel, were cut by an average of 18.1 percent from their November levels, reflecting lower landed fuel prices. This contributed to headline CPI falling by 0.2 percent month-on-month (mom) in January, reducing inflation to 7.0 percent year-on-year, and by a further 0.4 percent mom in February, cutting year-on-year inflation to 6.3 percent. Core inflation, which measures underlying inflation pressures by excluding more volatile prices including for food and fuel, has held at just under 5.0 percent since December. Rice prices, however, spiked in February, as discussed in Part B.1.

Inflation momentum is expected to stay moderate, capping headline inflation at an average of 6.5 percent for 2015

The inflation outlook depends crucially on future retail fuel price changes, which in turn depend on global oil prices and the exchange rate. RON88 gasoline prices were raised marginally, effective March 1, by IDR 200 per litre, while diesel prices were kept unchanged (see Box 3). Under baseline assumptions, inflation is expected to decline to below 5.0 percent yoy by the end of 2015, bringing annual average inflation in 2015 to 6.5 percent, reflecting stable underlying inflation momentum.
and the large November 2014 price increase dropping out of the annual comparison. Risks to the inflation outlook are balanced. Demand-side pressures should be limited by the moderate pace of growth relative to what Indonesia has sustained in recent years, albeit with only a modest output gap at present (see Part B.3.). The risks of higher inflation come mainly from continued depreciation of the Rupiah, or future increases in fuel prices. Pass-through of Rupiah depreciation into inflation has so far not been apparent (and regression estimates suggest that a 10 percent Rupiah depreciation causes only an approximately 0.3 percentage point increase in prices). However, exchange rate pass-through is expected to strengthen following the move to make previously subsidized gasoline, and diesel, prices dependent on Rupiah-denominated economic prices.

Table 2: In the base case, GDP growth is expected to be 5.2 percent in 2015, picking up to 5.5 percent in 2016 (percentage change, unless otherwise indicated)

<table>
<thead>
<tr>
<th></th>
<th>Annual</th>
<th>YoY in Fourth Quarter</th>
<th>Revision to Annual</th>
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<tr>
<td>1. Main economic indicators</td>
<td></td>
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<tr>
<td>Total Consumption expenditure</td>
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<tr>
<td>Private consumption expenditure</td>
<td>5.4</td>
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<td>Government consumption</td>
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<td>Gross fixed capital formation</td>
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<td>Exports of goods and services</td>
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<td>1.0</td>
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<tr>
<td>Imports of goods and services</td>
<td>1.9</td>
<td>2.2</td>
<td>4.0</td>
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<tr>
<td>Gross Domestic Product</td>
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<td>5.0</td>
<td>5.2</td>
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<td>2. External indicators</td>
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<tr>
<td>Balance of payments (USD bn)</td>
<td>-7.1</td>
<td>17.4</td>
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<td>Current account bal. (USD bn)</td>
<td>-29.1</td>
<td>-26.2</td>
<td>-29.1</td>
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<td>As share of GDP (percent)</td>
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<td>Trade balance (USD bn)</td>
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<td>Financial account bal. (USD bn)</td>
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<td>14.6</td>
<td>12.8</td>
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<tr>
<td>Central govt. expenditure (% of GDP)</td>
<td>17.3</td>
<td>16.7</td>
<td>15.4</td>
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<tr>
<td>Primary balance (% of GDP)</td>
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<tr>
<td>Consumer price index</td>
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<td>GDP Deflator</td>
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<td>Nominal GDP</td>
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<td>5. Economic assumptions</td>
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<td>Exchange rate (IDR/USD)</td>
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<tr>
<td>Indonesian crude price (USD/bl)</td>
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<td>98</td>
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Note: Export and import figures refer to volumes from the national accounts. All figures, including fiscal ratios, are based on revised and rebased GDP. Exchange rate and crude oil price are assumptions based on recent averages. Revisions are relative to projections in the December 2014 IEQ. Source: MoF; BPS; BI; CEIC; World Bank staff projections
4. Lower oil prices are supporting the trade balance

The current account deficit has remained sticky and the “basic balance” widened again in Q4 2014…

Indonesia’s balance of payments dynamics were dominated in 2014 by very strong portfolio investment inflows, which kept the overall balance of payments in surplus despite only a gradual narrowing in the current account deficit. The “basic balance”, a measure of reliance on potentially more volatile investment flows to meet current account financing needs, increased to USD 3.6 billion in Q4 2014, close to its persistent 3-year average of USD 3.2 billion per quarter. Going forward, lower oil prices are expected to materially reduce the net oil trade deficit, but weaker commodity prices, as well as rising capital import demand, including due to increasing infrastructure investment, will likely keep the overall current account deficit sticky over 2015.

…with lower oil prices contributing to the modest narrowing of the current account deficit to 2.8 percent of GDP

The current account deficit narrowed to USD 6.2 billion in Q4 2014 (2.8 percent of GDP), from USD 7.0 billion (3.0 percent of GDP) in the prior quarter. The oil and gas trade deficit, at USD 2.8 billion, shrank by a modest USD 354 million compared to the previous quarter. The non-oil and gas trade surplus rose by USD 526 million, to USD 4.9 billion, mostly due to an improvement in export revenues while imports remained relatively flat. January customs trade data showed a large trade surplus of USD 709 million, up from USD 187 million in December, mostly due to lower crude oil import costs. Going forward, the net oil import bill is expected to fall further as lower global oil prices compared with 2014 filter into refined fuel costs. However, the benefit to the overall current account deficit is expected to be partly offset by reduced natural gas export revenues as contracted prices catch up to lower global oil benchmarks (see Part C for a discussion of the oil and gas sector outlook). Other sub-account balances in the current account remained broadly stable between Q3 and Q4 2014; the service trade deficit rose by USD 190 million to USD 2.79 billion in Q4, and the income deficit fell by USD 170 million to USD 5.76 billion.

Commodity export revenue pressures continued through Q4 2014

Exports were lower than their year-ago level by 10.1 percent in Q4 2014, at USD 43.2 billion, the weakest level since the third quarter of 2010. Commodity-related export revenues, especially oil and gas, but also coal and mineral products, were down 29.1 percent yoy, driving the decline (Figure 8). Weaker commodities sales to China and Japan have been a key source of continued downward pressure on Indonesia’s exports (Box 2). Manufacturing exports stood at USD 19.8 billion in Q4 2014, up by 5.2 percent yoy and reducing the contraction in exports overall by 2.0 percentage points, but without sustained upward momentum.
Imports remained subdued, mainly due to falling oil import costs

Imports declined by 5.9 percent yoy in the fourth quarter of 2014. This was due mainly to lower fuel import costs, but all major import categories—consumer goods, raw materials, and capital goods—remained considerably lower compared with their year-ago levels (Figure 9). Consumer goods imports were lower by 10.3 percent yoy, pushing overall imports down by 0.7 percentage points, while capital and raw material goods imports together contributed 1.5 percentage points to the total import contraction in Q4 compared with the year-ago level. The continued weakness in imports, albeit with signs of capital imports recently stabilizing, is consistent with other indicators of soft domestic demand conditions through the end of 2014 (see Section 2).

**Figure 8:** Weak commodity export revenues continued to weigh on overall exports…

**Figure 9:** …while imports fell sharply in Q4 2014 due to lower fuel costs

Both net FDI and portfolio inflows were weaker in Q4 compared to the previous four quarters

On the capital and financial account side of the balance of payments, there was a sizable drop in the fourth quarter in inflows, to USD 7.8 billion, from USD 14.7 billion in Q3. Direct investment fell to USD 2.6 billion from USD 6.0 billion in Q3, mainly due to reduced inward investment (at USD 5.5 billion in Q4, down from USD 8.2 billion in Q4). Similarly, after three quarters of very strong portfolio inflows (a cumulative USD 24.2 billion over Q1-Q3 2014) driven by net foreign purchases of government debt, portfolio inflows declined to USD 1.6 billion. “Other” investment inflows rose by USD 1.4 billion from the prior quarter to USD 3.7 billion, mostly driven by increased private loans (up from USD 3.0 billion in Q3 to USD 4.4 billion).
### Box 2: The end of Indonesia’s export boom

Indonesia experienced an export boom from 2003-2011, during which the US Dollar value of exports approximately tripled. Export revenues fell in 2009 due to the global financial crisis, but growth quickly resumed, peaking in 2011. Commodity exports drove this growth, and increased from 52 percent of total export revenues in 2001 to 68 percent in 2011, as manufacturing and other exports grew at a slower pace and contracted as a share of exports from 48 to 32 percent. Since 2011, however, exports have slumped. Merchandise exports which contributed to 24.1 percent of GDP in 2011 fell to 21.1 percent to GDP in 2014. Exports contracted in each of the last three consecutive years, to be down by 13.4 percent in US Dollar terms in 2014 as compared to the peak in 2011, a comparable fall to the 15.1 percent contraction during the global financial crisis in 2009, albeit over a much longer period (Figure 10).

Like the rise of exports before 2011, the decline of exports in the last three years has been due to commodity-related exports. Commodity export revenues were over a fifth lower (-21.7 percent) in 2014 than in 2011, lowering the share of commodity exports to 62 percent of total exports in 2014. Non-commodity, primarily manufacturing, exports grew only very slowly over this period, to be only 5 percent higher in 2014 than in 2011, averaging USD 65 billion annually during 2011-2014 (Figure 10 and Figure 11).

Sharp falls in global commodity prices have driven much of the decline in Indonesia’s commodity export revenues. The index of global benchmark prices for Indonesia’s six major commodities exports, weighted by export revenue share, was 40 percent lower in February 2015 than its February 2011 monthly peak (Figure 12). In addition, Indonesia’s commodity exports have been impacted by lower coal demand from China (although partly offset by increasing demand from India, with overall coal export volumes growing modestly), declining oil and gas output, and the sudden stop of exports affected by the partial ban on raw mineral exports introduced in January 2014 (see Part C). For crude palm oil (CPO), strong volume growth has compensated for lower prices, benefiting from rising demand from Pakistan, some European countries, and the addition of 25 new export markets (destination countries for CPO exports) from 2011 to 2014 (Figure 11).

Indonesia’s exposure to Japan and China as key export markets has also recently been a source of downward pressure. Rising exports after the 2009 global financial crisis through to 2011 were strongly related to rising demand from these two countries. Exports to China doubled from 2009 to almost USD 23 billion in 2011, causing China to overtake the US, Europe and Singapore as a key export destination, second only in importance to Japan since 2011 (Figure 12). Over the last three years, however, exports sales to both China and Japan have fallen sharply, accounting for most of the drop in total exports. Lower oil and gas production combined with the recent oil price plunge has driven much of the fall in exports to Japan, which were 31.2 percent lower in 2014 than they were in 2011. Exports to China dropped by 23.5 percent from 2011 to 2014, with most of the fall occurring last year when the continued slowing of China’s economy, the related drop in mineral prices and demand, and the mineral export ban in January 2014 slashed exports by 22.3 percent yoy. Coal exports to China dropped by 23 percent to only USD 4 billion in 2014 from USD 5.6 billion in 2011, while minerals and rubber exports fell by 70 percent and 64 percent during the same period, leaving exports of each of these commodities at less than USD 800 million in 2014 from more than USD 1.7 billion in 2011. In combination, weaker commodity exports to Japan and China contributed 7.3 percentage points to the drop in aggregate exports from 2011 to 2014 (Figure 13).

The outlook for exports appears challenging, with global commodity prices and trade flows more generally not expected to pick up sharply. Significantly accelerating Indonesia’s exports will likely not be possible unless the country succeeds in growing its global market share in existing products or entering new markets, which in turn will require improvements in Indonesia’s international competitiveness.

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1 See Part C for a detailed analysis of the impact of the commodity boom on the evolution of Indonesia’s natural resource sector, the impact of the changes in the natural resource sector on macroeconomic (growth, external sector and revenues) and human development outcomes from 2002 to 2013, and managing the medium-term vulnerabilities arising from the projected decline in commodity prices and production.

2 In this box, commodities includes natural resource sectors (oil, gas and mining) as well as agricultural commodities such as CPO and rubber. The discussion in Part C focuses in more detail on the natural resource (oil, gas and mining) sectors.
Figure 10: Exports have declined since 2011, mainly due to weaker commodity revenues… (billion USD)

Figure 11: …which have been pressured by both lower prices and, except for CPO and coal, volumes (change in export value attributable to difference in volume and price, Jan-Oct 2011 to Jan-Oct 2014, percent)

Figure 12: Exports to Japan and China, Indonesia’s top two markets, have dropped sharply since 2011… (exports to top destinations, billion USD; price index, ‘08 = 100)

Figure 13: …driving more than half of the aggregate export fall from 2011-2014 (export value growth decomposition by country and product, Jan-Oct 2011 to Jan-Oct 2014, percent)
The current account balance is projected to remain constant in 2015 and widen in 2016 due to subdued commodity prices and rising investment.

The current account deficit is projected to widen slightly in US Dollar terms in 2015 and more markedly in 2016, and to remain at approximately 3.0 percent of GDP for 2015 as a whole, widening slightly further to 3.2 percent in 2016. The lower oil price since June 2014 would, all else equal, be expected to lower the current account deficit by up to 0.5 percent of GDP. However, moving into 2016, an acceleration in investment spending is expected to push up imports and the current account deficit. Compared with the December 2014 IEQ, the current account balance projection remains unchanged for 2015 and has been revised lower by 0.4 percentage points in 2016, reflecting lower commodity prices and an expected pick-up in investment spending growth.

### Table 3: A current account deficit of 3.0 percent of GDP in 2015 is projected

(USD billion unless otherwise indicated)

<table>
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<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<td>Overall Balance of Payments</td>
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<td>As percent of GDP</td>
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<td>2.0</td>
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<td>0.8</td>
</tr>
<tr>
<td>Current Account</td>
<td>-29.1</td>
<td>-26.2</td>
<td>-29.1</td>
<td>-34.5</td>
</tr>
<tr>
<td>As percent of GDP</td>
<td>-3.2</td>
<td>-3.0</td>
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<td>Goods trade balance</td>
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<td>6.9</td>
<td>6.6</td>
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<td>Services trade balance</td>
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<td>-10.5</td>
<td>-10.7</td>
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<tr>
<td>Income</td>
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<td>Basic Balance</td>
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<td>-11.0</td>
<td>-13.5</td>
<td>-17.4</td>
</tr>
<tr>
<td>As percent of GDP</td>
<td>-1.8</td>
<td>-1.2</td>
<td>-1.4</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

Note: Basic balance = current account balance + net FDI
Source: BI; World Bank staff calculations

5. **The Rupiah has strengthened in real effective terms**

Since July 2014, the Rupiah has depreciated against the US Dollar, by 10.2 percent (through March 13, 2015). This must be seen in the perspective of pronounced dollar strength against not just the Rupiah, but most global currencies. The broad USD index gained 17.2 percent over July 2014-February 2015, a historically very large increase. This can be attributed to the rebound in relative economic growth in the US, and to monetary policy divergence between the US (where the US Federal reserve is expected to begin raising rates later in 2015), Euro Area (where the ECB in January began a major “quantitative easing” program) and Japan. Considering the performance of the Rupiah against other currencies (Figure 14), on a trade-weighted (effective) basis the Rupiah was stronger as of January by 3.9 percent yoy (as measured by BIS). In real terms (i.e. adjusting for Indonesia’s relatively higher domestic inflation), the trade-weighted exchange rate has strengthened steadily since June 2014, and was up by 10.0 percent yoy as of the latest available BIS estimate, for January. Consequently, as of January the Rupiah was only 3.2 percent below its 10-year trend, compared with 12.2 below trend at the end of 2013, following the large currency adjustment that year (Figure 15).
High expectations

Indonesia Economic Quarterly

Figure 14: Since mid-2014 the Rupiah has fallen vs. the USD but risen in real trade-weighted terms…

(cumulative appreciation since end-June 2014, percent)

Figure 15: …with a marked real effective appreciation since 2013 leaving it close to its long-term trend

(real effective exchange rate, 2010=100, and 10-year linear trend)

Note: Real trade-weighted series is monthly average through Jan-15. Source: BIS; World Bank staff calculations
Nominal trade-weighted series applies BIS weights, daily frequency.
Source: CEIC; BIS; World Bank staff calculations

Indonesia’s financial markets have had a strong start to 2015, with the Jakarta Composite Index of equity prices rising 3.8 percent and bond yields compressing by 30-50 basis points (bps) across the maturity range, through March 13, 2015. Foreign inflows into Indonesian financial assets, particularly into bonds in January, supported prices, until the first half of March, which saw net foreign sales of bonds; net foreign purchases of both equities and bonds in 2015 through March 12 totaled IDR 32.6 trillion (approximately USD 2.5 billion). After a record 2014 for overall portfolio inflows, foreign ownership of domestic government bonds rose to historic highs (40.0 percent of bonds outstanding as of the end of February), before being pared back slightly by the renewed net outflows seen so far in March.

BI cut its reference rate by 25bps in February, reversing the November 2014 increase

Bank Indonesia cut its policy rate by 25bps on February 17, 2015 to 7.5 percent, three months after increasing it by 25bps in response to the November 2014 rise in subsidized fuel prices. The deposit facility (FASBI) rate was also cut by 25bps, supporting bank liquidity by lowering the opportunity cost to banks of wholesale lending, while the BI lending facility rate was kept at 8 percent. In support of this decision, BI stated it was confident that inflation would continue to fall towards its 2015 target of 3-5 percent. The central bank also said that the recent nominal depreciation of the Rupiah may be beneficial for the continued adjustment of Indonesia’s external accounts to weaker commodity prices.3 Foreign currency reserves increased by USD 3.7 billion from December 2014 to USD 115.3 billion in February 2015.

Credit growth has continued to decelerate but deposit growth appears to have stabilized …

Credit growth has continued to decelerate, approximately halving from its highs in 2013, to 11.4 percent yoy in December 2014. Overall deposit growth has remained broadly flat, at 12.1 percent in December, supported mainly by stronger time deposits. Consequently, the loan to deposit (LDR) ratio fell to 89.4 percent in November (down from 92.2 percent in July 2014). Aggregate bank loan book quality has also remained strong, and even improved slightly as measured by non-

3 BI press release: No. 17/12/DKom.
performing loans falling back to 2.2 percent of loans in December, down from 2.4 percent in November.

...and rising loan approvals may point to a stabilization of credit growth

Although credit growth is currently still weak, loan approvals, which tend to lead credit growth, have picked up since July 2014, from a 14 percent contraction at that time on a 3-month moving average basis compared with the year-ago level, to 7.8 percent yoy in December 2014 (Figure 16). However, it is still too early to judge whether the credit cycle is turning, with supply conditions looking more supportive but prospects for credit demand growth remaining uncertain given the still relatively tight stance of monetary policy and the subdued pace of fixed investment growth.

Domestic bond issuance and a sequential pick-up in bank credit compensated for low net external corporate borrowing in Q4...

Overall debt financing to the non-bank corporate sector picked up in the fourth quarter of 2014, thanks to a sharp rise in net domestic corporate bond issuance, to IDR 54 trillion (Figure 17). External financing to the non-bank corporate sector, however, fell from more than IDR 40 trillion in Q2 2014 to IDR 15.2 trillion in the fourth quarter, consolidating its recent subdued trend. Domestic bank credit to the corporate sector picked up to IDR 34.4 trillion in Q4, from IDR 24.1 trillion in the prior quarter, sufficient to offset the drop in net external financing, but, as apparent from the overall bank credit growth figures discussed above, still low relative to the pace of recent years.

Figure 16: Bank credit growth has continued to slow, but loan approvals have accelerated since mid-2014
(3-month moving avg, new loan approvals, credit growth; percent yoy)

Figure 17: Domestic credit to non-financial corporates increased in Q4 2014
(quarterly net increase, IDR trillion)

...and external debt growth has plateaued

US Dollar appreciation places upward pressure on the debt servicing costs in Rupiah terms of Indonesian companies with USD liabilities. The stock of private external debt is large, at USD 162.9 billion for the private sector as a whole, and USD 121.2 billion for non-financial companies in December 2014, though relative to GDP external leverage remains moderate at 32.9 percent as measured by BI. Private external borrowing growth fell from 11.9 percent yoy in September 2014 to 9.9 percent in December. In addition to the role that the weakening exchange rate trend may be playing to limit fresh external borrowing, BI is encouraging more currency hedging and penalizing high levels of external leverage through prescribed hedging ratios, liquidity ratios and credit rating requirements.
6. Major expenditure reallocation and ambitious revenue collection targets under the revised 2015 Budget

The 2015 revised Budget was approved in mid-February, and reflects an ambitious reform agenda. In January, Indonesia’s new government proposed its first Budget, revising the original 2015 Budget formulated by the previous administration in September 2014. A version of the revised Budget was approved by parliament in mid-February. Reflecting the new government’s reform agenda, the budget includes a major expenditure reallocation from fuel subsidies to key development priorities, particularly infrastructure, agriculture, and social programs. This reallocation towards productive expenditures is a major positive development. However, effective execution of the budget will require continuing to address capital spending challenges, and the increase in budgeted revenues needed to finance the envisaged spending increases is extremely large. Consequently, fully implementing the new budget stance will likely take time, and over the course of 2015 the authorities will likely face the challenge of adjusting spending to account for lower than budgeted realized revenues while preserving the improved allocative efficiency of the Budget.

The 2014 fiscal deficit outturn was a modest 2.2 percent of GDP despite revenue underperformance... The revised 2015 Budget inherits significant fiscal challenges. The provisional fiscal deficit in 2014 was IDR 227.4 trillion (2.2 percent of GDP4), slightly smaller than the revised 2014 budgeted level of 2.4 percent of GDP. Revenue collection undershot its target by a significant 6 percent in 2014 (discussed further below), but this was compensated for by means of major expenditure adjustments, including cuts in line ministries’ budgets, a sharp increase in subsidized fuel prices in November, and lower capital spending.

...and the budgeted fiscal deficit falls to 1.9 percent for 2015... The 2015 revised Budget targets a smaller fiscal deficit than in 2014, of 1.9 percent of GDP (Table 4). Underlying macroeconomic assumptions were also revised from the original 2015 Budget, to align better with recent developments, including slightly lower GDP growth (5.7 percent from 5.8 percent prior) and higher inflation (5.0 percent from 4.4 percent). The Rupiah-US Dollar exchange rate is assumed to average IDR 12,500, up from IDR 11,900 in the original Budget. Following the recent international oil price fall, the assumed Indonesia crude oil price for 2015 is now USD 60 per barrel, down significantly from USD 105 per barrel under the original budget. Oil and gas lifting assumptions were also revised down to 825,000 barrels per day and 1,221 million barrels of oil equivalent per day, following weak outcomes relative to targets in 2014 (Table 4).

...based on very ambitious revenue targets... Targeted revenues under the revised 2015 Budget are higher by 14.6 percent than the 2014 outturn. This significant increase comes despite the expected lower level of international oil prices in 2015 relative to 2014, accounted for in oil- and gas-related revenues which are budgeted to decline by 43.4 percent for income tax and 62.5 percent for non-tax revenues. Driving the strong increase in overall revenues despite the sharp falls in oil- and gas-related revenues (which accounted for about a fifth of revenues in 2014 - see Part C for further discussion on the medium-term picture for oil and gas revenues), is a significant rise in other tax revenues, especially value-added tax (VAT). VAT is targeted to increase by 42.5 percent relative to the 2014 realization, and income taxes from non-oil and gas related sectors are targeted to increase 36.9 percent from the 2014 outturn.

4 2010 rebased and revised GDP.
Revenue collection in 2014 reached only 94 percent of the revised 2014 Budget target of IDR 1,635.4 trillion (Figure 18), as the trend of declining revenue growth in recent years continued. Nominal domestic revenue growth was 6.8 percent in 2014, down from 7.5 percent in 2013 (Figure 19). The decline in overall revenue growth is due to a range of factors, including slower nominal GDP growth, declining commodity prices, and lower oil lifting (see the December 2014 IEQ). In addition, some recent policy measures contributed to the decline in revenue growth. For example, implementation of the mineral export ban in January 2014 negatively impacted both corporate income tax (CIT) and export tax revenues. Copper concentrate exports resumed over the second half of 2014, but overall non-oil and gas commodity revenues remained under pressure, with royalties undershooting their revised 2014 Budget target by 11.5 percent.

Lower value-added tax (VAT) growth was a major contributor to the weak performance of revenues in 2014. VAT collection growth in 2014 was only 5.8 percent, relative to an 18.8 percent average for 2009-2013 and only 85.1 percent relative to the revised 2014 Budget target. The introduction of a final tax of 1 percent on annual gross turnover for enterprises with gross turnover below IDR 4.8 billion in July 2013 and the consequent increase in the VAT registration threshold to IDR 4.8 billion may have negatively impacted both CIT and VAT collection. According to the Directorate General of Taxation (DGT), around 20 percent of VAT collection in 2013 was paid by taxpayers with turnovers below IDR 4.8 billion, which constitutes the foregone VAT revenue due to the policy change in 2014. Realization of non-oil and gas income taxes was 5.3 percent below the target.

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Note: O&G denotes oil and gas, N-O&G denotes non-oil and gas; LGST denotes luxury goods sales tax; NRR denotes “natural resource revenues”.

Source: Ministry of Finance; World Bank staff calculations
The ambitious revenue targets are expected to be reached through an improvement in collection, while specific policy measures have not yet been announced. Realization of the IDR 1,762 trillion revenue target for 2015 is stated in the revised Budget to rely on “extra effort” in tax collection, and also partly on future policy changes (not yet specified). The Financial Note for the Revised Budget states that the required improvements in tax administration include increased effectiveness and efficiency in collection, resting on institutional and organizational improvements, including improved human resource and IT capacity, and better exchange of information with other agencies and institutions. On the tax policy side, numerous announcements have been made regarding policy measures that the government is considering, but no final decisions have yet been made. Announcements include a travel ban and jailing of large tax debtors,8 the possibility of a tax amnesty, an increase in mining royalty rates, and the introduction of new taxes on new oil and gas production sharing contract (PSC) holders.

The 2015 revised Budget benefits from the major fuel subsidy reform of January 2015… On the spending side, the revised Budget shows large improvements in allocative efficiency. The fuel subsidy bill is budgeted to fall sharply to IDR 65 trillion (0.6 percent of GDP) from IDR 276 trillion (2.5 percent of GDP) in the original Budget, following major fuel subsidy reform. Taking advantage of the lower international oil price, the government introduced a bold new fuel pricing approach, effective January 1, 2015, under which low octane gasoline and diesel prices adjust automatically to changes in reference prices (Box 3).

…reallocates expenditure towards much-needed capital spending… The capital budget increases significantly to IDR 276 trillion, more than doubling the preliminary realization in 2014 (Figure 20). Some key line ministries, mainly those involved in delivering infrastructure projects, receive significant budget increases relative to 2014, such as the Ministry of Public Works (40 percent), Ministry of Transport (45 percent), Ministry of Agriculture (106 percent), Ministry of Social Affairs (177 percent), and Ministry of Energy and Mineral Resources (50 percent) (Figure 21). In addition, the revised Budget includes a capital injection to a number of State Owned Enterprises (SOEs), in the amount of IDR 70.4 trillion, which aims to help expedite infrastructure development.9

…and includes increased allocations to sub-national governments, including for infrastructure The allocation for transfers to sub-national government also increases sharply, mainly to support infrastructure development in districts and rural areas. The allocation for Village Funds, newly introduced in 2015 as mandated by the 2014 Village Law, more than doubles from IDR 9.1 trillion in the original Budget to IDR 20.8 trillion. The specific conditional transfers to districts (DAK) sees a sharp increase of 64 percent from the original budget, to IDR 59 trillion.

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8 In 2003, a similar policy was adopted to improve tax compliance, but due to factors including inconsistent enforcement and a shortage of tax auditors, this was widely regarded as ineffective. See http://www.thejakartapost.com/news/2015/01/27/editorial-jailing-tax-debtors.html.

9 This is reported in the Budget as a financing, not expenditure, item.
Realizing the benefits implied by the budget allocations will depend on overcoming execution challenges…

The significant redirection of spending away from fuel subsidies and towards development priorities, especially infrastructure, is a major positive policy change. However, the extent to which these policy intentions will materialize depends on overcoming two challenges. The first is to address long standing implementation problems, particularly land acquisition for new infrastructure projects. The preliminary expenditure outcomes of the 2014 Budget demonstrate the challenge; in 2014, total expenditure disbursed at 94 percent of the revised Budget, or 96 percent of the original Budget, with a mixed performance across spending categories. Core line ministries’ spending (e.g. on personnel, material, and capital) disbursed at 18 percent and 12 percent lower than the original and revised 2014 Budgets, while realized non-line ministry spending, such as subsidies and interest payments, tracked the revised Budget closely. Capital spending fell well short of the budgeted amounts, disbursing only 73 percent of the Budget and 84 percent of the revised Budget, with spending contracting sharply in nominal terms from 2013, by 26 percent.

…and significantly raising revenue performance

The second challenge for meeting ambitious development spending goals is posed by the higher revenues needed to fund them. The large fuel subsidy cost savings generated by the January 2015 reform, of approximately 1.8 percent of GDP in 2015, are offset by the negative impact of lower global oil prices on oil and gas revenues, which are projected by the government to contract by 1.9 percentage points of GDP in 2015 compared with 2014. The funding of the planned 1.0 percentage point of GDP increase in central government capital spending in 2015 compared with 2014, therefore, depends either on meeting the target of a 1.4 percentage point of GDP increase in tax revenues in 2015, an increase in the budget deficit, or a combination of the two. As the end of the first quarter nears, the space for additional revenue gains in 2015 through policy and administration changes is shrinking and a significant revenue shortfall appears likely.
Box 3: Fuel pricing reforms have slashed subsidy costs but realizing the full benefits will require transparent and consistent implementation

In a major policy shift, the new government announced further fuel subsidy reform on December 31, 2014, following the one-off 34 percent average gasoline and diesel price increase in November 2014. This new fuel subsidy scheme, effective January 1, 2015, is guided by the Presidential Regulation (Perpres No. 191/2014) and regulated by the implementing regulation of the Ministry of Energy and Mineral Resources (ESDM) (Permen ESDM No. 39/2014). The new policy includes the following key features: i) introduction of a new pricing method, entailing semi-automatic price adjustment, allowing gasoline and diesel prices to track the movement in international oil prices and the exchange rate, ii) removal of the subsidy for gasoline (RON 88, “Premium”) (though the regulated price will still incorporate additional transport costs for delivery of fuel outside Java, Madura, and Bali), and iii) introduction of a fixed per liter subsidy at a maximum level of IDR 1,000 for diesel. The new prices of gasoline and diesel will be announced every month, or every two weeks if deemed necessary, by the Ministry of Energy and Mineral Resource based on the monthly average of the reference international oil price (e.g., Mean of Platts Singapore) and the USD/IDR exchange rate.

The new fuel pricing scheme is expected to have a number of positive impacts on fiscal management and the economy:

- Reduce budget uncertainty: the floating fuel price scheme will reduce fiscal exposure to international crude oil price and Rupiah depreciation. This exposure is now limited to potential changes in the required volume of subsidized diesel due to price-induced changes in demand (expected to rise if the price falls and vice versa), but this is a small uncertainty at a subsidy rate maximum of IDR 1,000 per liter, and to kerosene and LPG economic price changes.

- Reduce fuel subsidy spending and safeguard fiscal sustainability: the new subsidy scheme significantly reduces fuel subsidy costs. Fuel subsidy cost is projected to fall sharply from 2.4 percent of GDP in 2014 to 0.6 percent of GDP in 2015. This is a major boost for the sustainability of Indonesia’s fiscal position and for positioning the fiscal sector to support a more equitable economy.

- Expanding fiscal space to redirect spending to productive spending: the projected fiscal savings are crucial to open up the fiscal space needed to increase spending on priorities for development, like infrastructure and health, although in the near term the downward pressure on oil-related revenues due to the fall in global oil price limits the net increase in fiscal space.

- Lower inflationary pressure: there will no longer be very large, once-off fuel price adjustments of the kind seen in 2005, 2008, 2013, and 2014. These large pent-up price shocks likely added to inflation risk perceptions, due to their uncetain timing and the threat that such very large supply-side price shocks could trigger higher longer-term inflation. The elimination of this source of the inflation risk premium should contribute to the stability of inflation expectations (in the past prices were artificially suppressed for long periods through below-market fuel pricing. This came at the cost of uncertainty about when this would end, a risk which has now been removed).

While the announced reforms are a major positive development, some subsequent announcements and actions have generated uncertainty over the implementation of the reformed system. The timing of the January 19 price announcement was unexpected, the pricing formula appears to have been unevenly applied for March, with the price of only gasoline (but not diesel) being changed as of March 1 (possibly due to a shift in the per liter diesel subsidy level, though this is unclear), and uncertainty about possible additional changes to smooth fluctuations (the government is reportedly considering adapting a threshold mechanism to manage oil price volatility in the future but more detailed information is not yet available).\(^1\) Specific components of the fuel price formula have also not been published.

More steps are needed to ensure the transparent and consistent application of the reform, thereby safeguarding its credibility and many benefits. Principles to achieve this include the need for the implementation to be:

- Transparent: to realize the benefit of reduced inflation uncertainty from eliminating larger adjustments, and to prevent the new system from increasing inflation uncertainty, it is critical that the basis of the price change is clear (e.g. according to a published formula with observable benchmarks) and that the timing of price changes is known (e.g. once per month on a date, according to a pre-announced schedule). Regularly publishing the formula and related information could reduce the risk of uncertainty and ensure public support at times of price increases.

- Consistent: for the reform to remove the fiscal risks associated with the budget’s previous, heavy negative exposure to Rupiah-denominated fuel costs, it is critical that it is applied consistently. Otherwise, the government may begin again to accumulate higher subsidy costs, and there will be uncertainty as to whether the fiscal sector will continue to be safe from future rises in global oil prices or currency depreciation.

\(^1\) \url{http://en.republika.co.id/berita/en/national-politics/15/01/12/ni275f-govt-to-set-maximum-subsidized-gasoline-price-at-rp9500liter}. 
The World Bank projects a fiscal deficit of 2.5 percent of GDP in 2015…

Based on macroeconomic projections for 2015 and the budget posture (aiming for strong increases in capital and related expenditures), the World Bank projects a budget deficit for 2015 of 2.5 percent of GDP, larger than the budgeted amount (Table 4). This projected deficit level is based on the expectation that the rule constraining the central government fiscal deficit to a de facto maximum of 2.5 percent of GDP will bind in 2015, and that the deficit will be capped at this level by significantly restraining expenditures through budget cuts or low budget execution in some areas, including capital spending.

…driven by a significant expected revenue shortfall

On the revenue side, the World Bank projects a significant shortfall of IDR 282 trillion (2.4 percent of GDP). This is driven by differences in macroeconomic assumptions, especially lower GDP growth and a lower oil price. In addition, given that details are not yet available on major revenue-enhancing measures that the government may implement over the remainder of 2015, this projection excludes possible gains from tax policy and administration changes. Consequently, the World Bank projects that total revenues will decrease by approximately 3.7 percent relative to 2014 levels. This decrease is mainly driven by a 57 percent reduction in projected oil and gas related revenues, reflecting lower production and (in particular) the assumed decline in Indonesia crude oil prices to an average of USD 55 per barrel in 2015 compared with USD 96.5 per barrel in 2014. Other revenues are projected to increase in nominal terms, but at a much lower rate than targeted in the revised 2015 Budget. VAT and income taxes from non-oil and gas are projected to increase by 11.2 and 10.4 percent yoy, respectively, broadly in line with the trend in recent years.

There is still scope for capital spending to rise from 2014 levels, but it will be significantly short of the budgeted level

Expenditures are projected in the base case to be broadly flat in nominal terms in 2015 compared with 2014, but with a markedly different composition. As per the revised budget, wasteful fuel subsidy spending is projected to drop from IDR 240 trillion to IDR 67 trillion, and transfers to regions are projected to rise from IDR 574 trillion to IDR 664 trillion. Assuming that capital spending will be prioritised so that personnel and material spending is kept to 3.8 percent of GDP (as it was in 2014), instead of rising to 4.6 percent of GDP in the revised budget, there will still be some space to increase capital spending - from IDR 135 trillion in 2014 up to IDR 200 trillion in 2015. This would achieve a major, 47.8 percent, increase in central government capital expenditures from 2014 (1.7 percent of GDP compared with 1.3 percent in 2014), but would still be far short of the budgeted 103.8 percent annual increase in nominal capital spending for 2015 (which would constitute 2.4 percent of GDP, a level not seen since the early 2000s). However, this is dependent on the government choosing and being able to maintain personnel and material spending at much lower levels than budgeted.
Gross financing requirements for 2015 exceed those in 2014, despite the smaller budgeted fiscal deficit, due to a similar level of debt redemptions as in 2014, and an SOE equity injection of IDR 70.4 trillion (Figure 22). Under the revised 2015 Budget, gross government securities issuance of IDR 451.8 trillion is targeted, compared with issuance of IDR 428.1 trillion over 2014. As of March 3, IDR 156.6 trillion of securities, or 34.7 percent of this target, had already been raised, helped by the issuance in January of USD 4 billion worth of global bonds. As in recent years, the financing strategy of the Directorate General of Financing and Risk Management aims to meet the bulk of financing needs through Rupiah-denominated debt, with international issuance capped at under 23 percent of gross securities issuance.
Table 4: The World Bank projects a fiscal deficit of 2.5 percent of GDP in 2015
(IDR trillion, unless otherwise indicated)

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Tax revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income tax</td>
<td>570</td>
<td>547</td>
<td>644</td>
<td>679</td>
<td>544</td>
</tr>
<tr>
<td>Oil and Gas</td>
<td>84</td>
<td>87</td>
<td>89</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>Non-oil and Gas</td>
<td>486</td>
<td>460</td>
<td>556</td>
<td>630</td>
<td>508</td>
</tr>
<tr>
<td>VAT/LGST</td>
<td>476</td>
<td>405</td>
<td>525</td>
<td>577</td>
<td>450</td>
</tr>
<tr>
<td>2. Non-tax revenues</td>
<td>387</td>
<td>391</td>
<td>410</td>
<td>269</td>
<td>277</td>
</tr>
<tr>
<td>B. Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Central government</td>
<td>1,280</td>
<td>1,191</td>
<td>1,392</td>
<td>1,320</td>
<td>1,110</td>
</tr>
<tr>
<td>Personnel</td>
<td>258</td>
<td>243</td>
<td>293</td>
<td>293</td>
<td>262</td>
</tr>
<tr>
<td>Material</td>
<td>195</td>
<td>176</td>
<td>223</td>
<td>239</td>
<td>175</td>
</tr>
<tr>
<td>Capital</td>
<td>161</td>
<td>135</td>
<td>175</td>
<td>276</td>
<td>200</td>
</tr>
<tr>
<td>Interest payments</td>
<td>135</td>
<td>133</td>
<td>152</td>
<td>156</td>
<td>156</td>
</tr>
<tr>
<td>Subsidies</td>
<td>403</td>
<td>393</td>
<td>415</td>
<td>212</td>
<td>198</td>
</tr>
<tr>
<td>Energy subsidies</td>
<td>350</td>
<td>342</td>
<td>345</td>
<td>138</td>
<td>146</td>
</tr>
<tr>
<td>Fuel</td>
<td>246</td>
<td>240</td>
<td>276</td>
<td>65</td>
<td>67</td>
</tr>
<tr>
<td>Electricity</td>
<td>104</td>
<td>102</td>
<td>69</td>
<td>73</td>
<td>79</td>
</tr>
<tr>
<td>Non-energy subsidies</td>
<td>53</td>
<td>51</td>
<td>70</td>
<td>74</td>
<td>52</td>
</tr>
<tr>
<td>Grants</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Social</td>
<td>97</td>
<td>98</td>
<td>86</td>
<td>104</td>
<td>105</td>
</tr>
<tr>
<td>Other expenditures</td>
<td>28</td>
<td>12</td>
<td>46</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>II. Transfers to regions</td>
<td>597</td>
<td>574</td>
<td>647</td>
<td>665</td>
<td>664</td>
</tr>
<tr>
<td>C. Primary balance</td>
<td>-106</td>
<td>-94</td>
<td>-94</td>
<td>-67</td>
<td>-138</td>
</tr>
<tr>
<td>D. Overall balance</td>
<td>-241</td>
<td>-227</td>
<td>-246</td>
<td>-223</td>
<td>-294</td>
</tr>
<tr>
<td>as percent of GDP*</td>
<td>-2.3</td>
<td>-2.2</td>
<td>-2.1</td>
<td>-1.9</td>
<td>-2.5</td>
</tr>
</tbody>
</table>

Key economic assumptions

- Real GDP growth (percent) 5.5 5.1 5.8 5.7 5.2
- CPI (yoy, percent) 5.3 8.4 4.0 5.0 6.8
- Exchange rate (IDR/USD) 11,600 11,878 11,900 12,500 12,600
- Crude-oil price (USD/barrel) 105 97 105 60 55
- Oil production (’000 barrels/ day) 818 794 900 825 826

Note: *in terms of 2010 rebased GDP.
Source: Ministry of Finance; World Bank staff calculations
7. Making credible progress towards ambitious fiscal and development targets is a key challenge for 2015

The considerable revenue challenge may lead to excessive focus on short-term, ad-hoc measures on the revenue side...

Fiscal management to account for the likely slower-than-budgeted revenue growth, and capital budget affordability and execution challenges, while preserving the improved allocative efficiency of the newly revised 2015 Budget, will be a key policy challenge over 2015. There is a risk that, with tax revenue collection targets for 2015 being hard to achieve, excessive focus is placed on short-term, ad-hoc measures to meet revenue targets, which may have negative impacts on revenue performance in the longer term. For example, international experience suggests that tax amnesties, in general, do not have a significant effect on revenue collection, especially in the long term, and can negatively affect future tax morale and compliance. Indonesia introduced a tax amnesty in 2008, known as the “Sunset Policy”. According to DG Tax, it resulted in an additional 5.4 million taxpayers becoming registered, and additional revenues of around IDR 7.5 trillion. This estimated revenue gain was small relative to GDP (approximately 0.2 percent), with no visible material effect on the tax-to-GDP ratio over the longer-term.

…and risks to medium-term quality of spending

With below-budget revenues meaning that the unprecedented expansion in the central government capital budget will likely need to be scaled back, there is a need for a continued strong focus on maintaining a strategic approach to growing and raising the quality of the government’s portfolio of investment projects over the medium-term.

…with the uncertain future trajectory of oil prices increasing the need for consistent implementation of reformed fuel pricing

Following through on fuel subsidy reform, a central pillar of the government’s fiscal reforms, with consistent and transparent implementation of the new pricing mechanisms, can play a role in maintaining fiscal credibility. This will be particularly important if global oil prices were to rise significantly, which without consistent and transparent application of price adjustments could raise concerns about the fiscal sector again becoming burdened by fuel subsidy costs. Conversely, if oil prices were to fall further this would be a net negative for the fiscal balance since, following the January 2015 reform, the loss in revenues from a drop in oil prices offsets the associated decline in spending. A sensitivity analysis suggests that every USD 10 drop in crude prices generates a direct, net negative fiscal cost of approximately IDR 16.5 trillion (around USD 1.4 billion or 0.14 percent of GDP).

SOE performance is increasingly in focus

The government’s capital injection to a number of SOEs with an IDR 70.4 trillion (approximately USD 5.4 billion) 2015 Budget allocation highlights the key role of SOEs for planned infrastructure development. This makes the performance of SOEs with respect to the quantity and quality of investments increasingly central to gauging the success of the government’s ambitious development plans.

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Significant, and potentially rising, external financing requirements place a premium on securing more, and higher quality, investment inflows.

As the government moves forward on its ambitious infrastructure development plans and wider reform agenda, Indonesia’s economy will require more and higher quality external financing. Macroeconomic management challenges and growth risks from external economic conditions and shocks could also re-emerge (for example, due to any abrupt tightening in global US Dollar market liquidity conditions as US monetary policy normalizes). Indonesia’s current account deficit (projected at close to USD 30 billion in 2015), and short-term external debt burden (USD 58.4 billion as of December 2014, according to BI), already generate significant ongoing gross external financing needs. Ambitious infrastructure development plans will add to the financing needs of the economy directly, and indirectly through more imports of machinery, equipment and other inputs for projects. Aside from a continued focus on maintaining and increasing policy and reserve buffers, credible reform implementation to address Indonesia’s supply-side constraints would help to generate a positive cycle of increased and more stable external financing (FDI and structural allocations to Indonesian assets in international investment portfolios), higher investment, and growth.
B. Some recent developments in Indonesia’s economy

1. Indonesia’s internationally high and volatile rice price

Rice prices spiked in February, with retail prices ending the month approximately 12 percent higher year-on-year, and wholesale prices increasing by about 14 percent (Table 5). Domestic rice production contracted in 2014 and stocks at Cipinang rice market, the largest wholesale rice market in Indonesia, declined sharply in February, but the exact causes of the recent price spike are unclear. Even if it proves to be short-lived, however, the February price spike conforms to a consistent trend since 2004 of Indonesian rice prices rising at a faster rate than those in international markets, with the single exception of during the 2007/8 global food price crisis (Figure 23). The following section provides a brief overview of the groups that are impacted by rising rice prices, and a discussion of some of the factors that may be driving the recent, and long-term, increase in rice prices.

Table 5: Retail and wholesale rice prices have risen quickly over the past year (rice prices, IDR per kilogram)

<table>
<thead>
<tr>
<th>Quality</th>
<th>Wholesale Price</th>
<th>Retail Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>IR64 I</td>
<td>IR64 II</td>
</tr>
<tr>
<td>Feb-14</td>
<td>9,014</td>
<td>8,452</td>
</tr>
<tr>
<td></td>
<td>11,389</td>
<td>9,043</td>
</tr>
<tr>
<td>Feb-15</td>
<td>10,300</td>
<td>9,682</td>
</tr>
<tr>
<td></td>
<td>12,832</td>
<td>10,146</td>
</tr>
<tr>
<td>Growth</td>
<td>Growth, percent</td>
<td></td>
</tr>
<tr>
<td>Feb-14</td>
<td>14.26</td>
<td>14.55</td>
</tr>
<tr>
<td></td>
<td>12.67</td>
<td>12.20</td>
</tr>
</tbody>
</table>

Note: Wholesale prices are taken from Jakarta’s wholesale market (Pasar Induk Beras Cipinang, PIBC). IR64 refers to a benchmark grain variety, ranked from I (highest quality) to III (lowest quality).

Source: CEIC

Figure 23: Rice prices spiked in February, following a trend of high and rising prices in Indonesia (wholesale prices, IDR/kg)

Note: Indonesia price is wholesale (PIBC IR64 II), Vietnam is 15 percent broken (fob). Source: CEIC
A large majority of Indonesian households, including farmers, are net buyers of rice, and higher rice prices increase poverty. Rice is fundamental to most Indonesians’ diets and Indonesia’s per capita intake of calories from rice is the fifth highest globally. Because it directly affects almost all people, rice price stability is a highly charged economic, social and political issue. The vast majority of Indonesians are net consumers of rice and are therefore hurt by higher rice prices. Rising rice prices also tend to hurt farmers, many of whom consume more rice than they produce. 

Table 6: Most Indonesians, including farmers, are net consumers of rice (percent)

<table>
<thead>
<tr>
<th>Proportion who are net consumers of rice</th>
<th>Rice Farmers</th>
<th>All Farmers</th>
<th>All Indonesians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-poor</td>
<td>25.6</td>
<td>66.8</td>
<td>82.7</td>
</tr>
<tr>
<td>Poor</td>
<td>31.8</td>
<td>68.0</td>
<td>76.5</td>
</tr>
<tr>
<td>Total</td>
<td>26.8</td>
<td>65.4</td>
<td>81.9</td>
</tr>
</tbody>
</table>

Note: Based on last available comprehensive rice production module (Susenas 2004). Source: McCulloch, N., 2008, “Rice Prices and Poverty in Indonesia”, BIES 44:1, pages 45-64.

Poor quality data on both rice production and consumption limit the evidence on market conditions and the ability to make informed policy decisions. The limited availability and quality of data on both rice production and consumption reduce the ability of the government and researchers to understand Indonesian rice supply and demand. Production data are based on “eye estimate” and “crop-cutting” methods that are less accurate than satellite data. Price data is available for early monitoring systems, but domestic stock data at main warehouses and distribution points is lacking. Data released by the national statistics agency (Badan Pusat Statistik, BPS), showing consumption at 139.15 kg per capita per year in 2014 (revised to a projected 124.89 kg in 2015) would suggest a surplus of domestic supply of rice, which is inconsistent with high rice price inflation and the observed need for imports.

Indonesia’s market for rice, which is not fully integrated, is likely to keep growing. Rice consumption per capita in Indonesia has fallen from 96kg in 2005 to 85kg in 2014, based on World Bank staff estimates from Susenas data. Total consumption, however, will likely continue to rise, as rice remains a key part of the diet of Indonesia’s growing population. This structural rise in rice demand will put ever greater pressure on Indonesia’s domestic rice production, which currently accounts for around 95 percent of supply. Adding to the challenge from generally rising demand is the fact that rice demand is not uniform across Indonesia. People in different provinces consume different varieties of rice, and there are transport and information frictions across the country (discussed further below). This means that rice does not flow smoothly at a given time from areas with surplus production to areas with excess demand.

Indonesia’s rice market faces structural challenges and public spending has not been effective in supporting productivity... Rice consumption per capita in Indonesia has fallen from 96kg in 2005 to 85kg in 2014, based on World Bank staff estimates from Susenas data. Total consumption, however, will likely continue to rise, as rice remains a key part of the diet of Indonesia’s growing population. This structural rise in rice demand will put ever greater pressure on Indonesia’s domestic rice production, which currently accounts for around 95 percent of supply. Adding to the challenge from generally rising demand is the fact that rice demand is not uniform across Indonesia. People in different provinces consume different varieties of rice, and there are transport and information frictions across the country (discussed further below). This means that rice does not flow smoothly at a given time from areas with surplus production to areas with excess demand.

13 The last rice production module is from Susenas 2004. More recent evidence is consistent with there being a continued high share of net rice consumption across all households, and farm households: 89 percent of Indonesians are estimated to have been net rice consumers as of 2007 using IFLS, see Warr, P., 2014, “Food Insecurity and its Determinants”, Australian National University Working Paper; as of 2013, World Bank staff estimates based on the Susenas 2013 Core and Consumption Module are that about 22 percent of rice farmers and 83 percent of total households are net consumers of rice.
14 World Bank staff calculations based on Susenas data.
15 Estimates based on Susenas (85kg per capita in 2014) exclude rice consumed away from the home, while BPS rice consumption estimates also include estimated rice consumption away from the home, taken the Food and Beverages Industry Survey.
but it is clear that production declined over the past year and has slowed in recent decades

Estimated annual production in 2014 declined from 2013, the third time there has been an annual drop since 1997-98 (Figure 24). Stocks at Cipinang rice market show some signs of having drifted downwards throughout the end of 2014, before declining sharply in February (Figure 25). Taking a longer-term perspective, total production growth has been slowing on a structural basis, with production growth over 1990-2011 at less than half the rate of 1961-1990, due mainly to falling productivity (yield growth) (Table 7).

Table 7: Total rice production growth remains slow, driven by low yield growth (annual growth, percent)

<table>
<thead>
<tr>
<th></th>
<th>'61-'70</th>
<th>'70-'80</th>
<th>'80-'90</th>
<th>'90-'00</th>
<th>'00-'11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yield</td>
<td>3.4</td>
<td>3.3</td>
<td>2.7</td>
<td>0.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Area</td>
<td>1.9</td>
<td>1.0</td>
<td>1.5</td>
<td>1.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Production</td>
<td>5.4</td>
<td>4.4</td>
<td>4.3</td>
<td>1.4</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Note: * Annual increase is compound annual growth rate. Source: IRRI; FAO; World Bank staff calculations

Productivity is hampered by a range of factors including slow mechanization…

There are a number of factors that contribute to lower productivity. Indonesia’s average operational farm size, especially in Java, is below that in peers such as Thailand and the Philippines (Figure 26). Farms also tend to be highly labor intensive; in 2013, Indonesia had the highest labor intensity rate out of China, India, Thailand, the Philippines and Vietnam (Figure 27). While the international evidence is that smaller farm sizes do not necessarily reduce productivity, they do reduce potential economies of scale and the rate of mechanization, and these factors may be weighing on Indonesia’s rice productivity growth, as well as being associated with low wages for agricultural workers.

…poor infrastructure and connectivity…

Other key challenges to improving productivity include low levels of technology and information (such as the adoption of innovative high-yielding and high-variety seeds), low agricultural research and extension spending, and land administration bottlenecks (limiting the titling which is commonly needed for loan collateral). Poor infrastructure (irrigation, water resources, road-access to markets) and high logistics costs also weigh on Indonesia’s rice market.16 Inter-island shipping costs are high due to poor port infrastructure in Eastern Indonesia and significant backhaul

16 Ministry of Trade Report, Domestic Trade Policy Centre, 2013, “A Study on Inter-island Logistics Performance: Case Studies on rice and Cement”.

Source: BPS; World Bank staff calculations  
Source: PT. Food Station Tjipinang Jaya

Figure 24: Rice production declined in 2014…

(production growth contributions, percent)

Figure 25: …contributing to a significant decline in stocks over late 2014 and early 2015

(Cipinang market stocks, thousand tons)

Source: BPS; World Bank staff calculations
problems for ships returning to Java from eastern Indonesia. Trucking costs, both at origin and destination cities, are the main logistical cost for rice in reaching markets. Congestion in major cities and poor road maintenance in eastern Indonesia also drive up costs.

Public spending on agriculture, including rice, has increased significantly, but allocations have not been effective in supporting domestic productivity growth. The ratio of public agricultural spending to GDP in agriculture increased from 9 percent in 1970-80 to 35 percent in 2009 and the agriculture share of the budget doubled from 3 percent in 2001 to 6 percent by 2008. This increase did not result in a corresponding rise in agricultural production, which increased by an average of 3 percent between 2001 and 2009. The weak apparent impact of spending on productivity can be attributed to the poor allocation of spending; agriculture subsidy spending towards private inputs such as fertilizer increased by four times between 2001 and 2009, while public spending for irrigation remained flat. Research for Indonesia has shown that spending on public goods such as irrigation has a positive and significant impact on GDP per capita growth in agriculture, while public spending for fertilizer subsidies has a negative impact.

Figure 26: Average operational farm size in Indonesia is lower than in the Philippines and Thailand…

(average farm size, hectares)

Figure 27: …and Indonesian rice farming continues to be labor-intensive

(labor intensity, 8 hour persons-days per hectare per crop)

Note: Average farm size is total farm area in a locality divided by the number of farms. There farms include rice and other crops.
Source: National Agricultural Censuses

Note: 1990s data for Indonesia pertain to 1994-1997. The regions include Central Plain (Thailand), Zhejiang (China), Mekong Delta (Vietnam), Central Luzon (Philippines), Tamil Nadu (India), and West Java (Indonesia).

b. …and price stabilization polices are not playing an effective role

While agricultural productivity and connectivity are the long-term drivers of rice prices, the government has a range of mechanisms to stabilize prices over the short-terms. These include market operations known as Operasi Pasar (OP), and rice imports, and the use of a government purchase price (Harga Pembelian Pemerintah, 17 Armas, E. B., C. G. Osorio, and B. Moreno-Dodson, 2010, “Agriculture Public Spending and Growth: The Example of Indonesia” World Bank Economic Premise, No.9, April.

18 Ibid.
20 Ibid.
HPP), implemented by the government logistics bureau (Badan Urusan Logistik, Bulog). OP is the main price-stabilization mechanism in cases of consumer rice price inflation. The regulation allows a market intervention if there is 10 percent rice price inflation from the three-month average price level until the rice price stabilizes. Since 2009, rice imports have been rule-based, according to three criteria: (1) the difference between the domestic rice price and the prevailing HPP rises beyond a threshold level; (2) whether the amount of Bulog rice reserves fall below a certain level; or (3) if the projected surplus from domestic rice production over consumption is less than a set amount. Bulog is the sole importer of rice, except for high-quality (0%, 1% and 5% broken) and aromatic varieties of rice.

...but their implementation has varied, with market operations (OP) not appearing to have significantly stabilized prices...

HPP is used to provide a floor price to farmers and incentivize production. In the last few years, the level of HPP has been set in order to increase farmers’ incomes, to increase Bulog’s procurement capacity, and in anticipation of international rice price increases. Since 2011, the government has been allowed to procure rice at prices above the HPP, and beyond the specific quality of rice that had been set in 2005. A national social assistance program that distributes subsidized rice (Beras Miskin, Raskin) is not intended to stabilize prices, but it may sometimes be used to mitigate the impact of a rice price shock among poor and vulnerable households, such as during the 2008 food price crisis. Taken together, OP, rice imports and Raskin directly affect only a small share of total rice production (Figure 28). The small amount of OP released, less than one percent of total rice production, likely explains why this mechanism has had no significant impact in reducing prices.22

...and these mechanisms, as well as other policy signals, may contribute to rice price volatility, including that seen in February...

Although the effect of volume effort of OP, Raskin and Import are low, they may contribute to rice price volatility, especially when forecasted stocks are low. Informed traders may choose to restrict their sales as they wait for the government to exercise price-stability mechanisms. The government’s signal that it would not increase imports of rice, as part of its stated aim of achieving rice self-sufficiency by 2018, may also have contributed to the perception in February of insufficient supply, especially coming after the 33 percent decline in Bulog’s procurement of rice last year.23 Delays in the Raskin disbursement over the November 2014 to February 2015 period may have also triggered some excess demand in the market, particularly as this period is between the main harvest seasons. Combined with limited and

Figure 28: OP, imports, and Raskin are only small shares of total rice supply (share, percent)

Source: Indonesia customs; BPS; Bulog; SUSENAS

21 Ministry of Trade Regulation No.06/M-DAG/PER/2/2012.
inaccurate information regarding production, consumption and stocks, the use and communication of government operations create uncertainties about the true available stock, distorting the market and creating space for short-term speculation.

...suggesting the need for a stronger focus for achieving real rice security based on better information, and addressing the constraints to productivity growth.

Rice is Indonesia’s staple food, and the international market for rice is very thin (only 6-7 percent of total global rice production is traded across international borders). In this context, concerns over achieving secure rice supply, in Indonesia as elsewhere, are valid. However, recent experience shows that the current price policy mix and implementation has had limited effectiveness in achieving the stated objective of the government to protect the poor and farmers. Policies that have the effect of keeping rice prices high increase poverty and distort the domestic rice market, including by encouraging illegal imports, and generating wider inflationary pressures. While market operations (OP) can play role to smooth price volatility, interventions should be timely, appropriately sized and well-targeted. This will require an effective early warning system and reliable real-time information about prices, stocks and flows of rice. Over the longer-term, achieving a sustained improvement in Indonesia’s rice security will require increasing productivity through long-term, structural improvements in the farm sector.

2. Streamlining business licensing in Indonesia

Obtaining business licenses in Indonesia is currently too complicated, expensive and time-consuming, making this a major reform priority for the new government.

Investment in Indonesia is constrained by the fact that the processes for firms, both large and small, to register their operations and obtain the necessary licenses are complicated, expensive and time-consuming. Indonesia currently ranks 114th out of 189 countries in the ease of doing business, as measured by the World Bank. For example, obtaining the licenses necessary to start a new business in manufacturing takes 794 days by law, although actual implementation can be slower still. Within the energy sector, the growth of which has been identified by government as a key policy priority, investors report that obtaining the various permits and licenses needed to establish a power plant can take over 4 years. The importance of streamlining business licensing is recognized by the government to be a major policy priority, and this section provides a brief overview of the steps that have been taken so far in this area, as well as remaining challenges.

a. Business licensing is a major reform priority of the new government...

Previous attempts to improve business licensing and develop one-stop services for licenses have yielded few results.

A number of initiatives were undertaken to improve and simplify licensing application processes at the national and sub-national levels during the previous administration, but with limited results (Box 4). Creating a single point of contact for investors' license applications is a way to make interactions with the public authorities easier for applicants, and to create an institutional setting in which inter-agency collaboration and simplification or streamlining of licensing processes generally becomes easier and more compelling. Previously, no significant progress was made on the development of such centralized “One-Stop Services” (OSS) at the national level, nor in simplifying application procedures for, and speeding up the issuance of, business licenses. At the sub-national level, where businesses also need to obtain licenses (including from different agencies), some sub-national OSS were championed by reform-minded local leaders with notable success. The variance in how well subnational licenses are processed has been, and remains, considerable.

For most businesses, that need to obtain both national and subnational licenses, and especially for smaller and locally focused businesses that need only sub-national licenses, well-run OSS and the resulting improvement in licensing processing can make a big difference to the accessibility, ease and cost of investing and doing business.

The government has put business licensing back at the top of the reform agenda.

The new government has put improved investment licensing back at the top of the reform agenda. It has publicly and repeatedly committed itself to improving the business environment in Indonesia and to making it easier, cheaper, and faster for firms to comply with regulatory requirements. In his first impromptu visit (blusukan) after being inaugurated, the President visited the Investment Coordinating Board (Badan Koordinasi Penanaman Modal, BKPM) in October 2014, and instructed BKPM and relevant ministers to implement a central OSS within three months (i.e. by January 2015). He also emphasized that investors should need to visit only BKPM to apply for licenses at the national level. At the time of the President’s visit, investors still needed to apply for licenses from various ministries and agencies...

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outside BKPM at the national level, as well as for sub-national licenses, while BKPM itself only processed fourteen licenses, including the principle license at the start of the licensing process and the operational license at the very end of it. Once fully implemented, a central OSS will mean the integration of all licensing processes at the national level under one roof, simplifying the currently complex web of business licensing across the different national and sub-national agencies (Figure 29). The intended result is quick, simple, transparent and integrated licensing services. The President also announced that he would put pressure on governors, district heads and city mayors to implement effective sub-national one stop services, with possible budget transfer consequences for those failing to implement the changes.28

b. …and initial reform momentum has been strong

BKPM is reforming its services to meet ambitious targets

Towards the end of the previous administration, BKPM had conducted an initial mapping of business licensing procedures for selected sectors and identified potential areas for reform. The agency was also in the process of implementing gradual reforms to improve its services to investors, including a review of the application process and the introduction of an online application system. In anticipation of the greater responsibilities to come, BKPM announced the full implementation of its mandatory online application, effective December 15, 2014. Although the online application had already been introduced for certain types of licenses, full implementation was brought forward despite limited pilot testing of the system’s readiness or private sector familiarization with the new processes.

BKPM has been working with relevant ministries to transfer licensing authority to BKPM...

To prepare for the launch of the central OSS in January 2015, BKPM worked with the relevant ministries and agencies towards achieving four key milestones. First, the development and issuance of ministerial decrees on the delegation of authority to BKPM, and the assignment of liaison officers from ministries and agencies to the central OSS, including a list of the licenses to be processed under the central OSS. The liaison officer may have a mandate to process and issue the license directly, or may transfer the application to their ministry or agency if it requires substantive technical knowledge (for example interpreting environmental testing results or certain types of construction and engineering permits). Second, the development and issuance of ministerial regulations on standard operating procedures for all licensing processes under the central OSS. Third, the organizational set up of the central OSS, including front office and back office arrangements (software and hardware), business processes, a call center, and a monitoring and tracking system. Fourth, the initial engagement of the private sector in the reform process, including gathering feedback and identifying problems, and initial outreach and communication.

…and a single physical location for obtaining national licenses now exists

As a result of the measures summarized above, BKPM now provides a single physical location at which investors can apply for many national licenses. While this is a significant step forward, many challenges remain before realizing the goal of truly integrated investment licensing.

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28 Kontan, November 4, 2014.
In the weeks after the central OSS was established and started to deliver integrated services, several implementation issues have been identified. Despite the implementation in mid-December 2014 of an online application system, investors complain that the system is not reliable and lacks user-friendliness. Consequently, most investors continue to visit the central OSS in person, to consult with staff and seek solutions. This raises concerns regarding BKPM’s current ICT system and its capacity to support a fully integrated OSS. In addition, applications for licensing processed by sectoral ministries’ and agencies’ liaison officers dropped in the weeks following the integration of the central OSS in January. The fact that many investors continue to submit their applications directly to the sectoral ministries and agencies, or have delayed their submissions, suggests limited familiarity with how the central OSS works.

c. Challenges ahead: the need for a credible reform plan and effective implementation

The Chairman of BKPM, Franky Sibarani, has stated that the central OSS is not yet a fully integrated service.29 The limitations of the improvements achieved so far apply to both the streamlining of processes, and to the number of licenses that are yet to be covered. For example, investors still need to go from desk to desk within BKPM to obtain each license and apply for the next one in the chain. BKPM still only processes licenses for about 300 business types out of a total of 1,200. Much work, therefore, remains to be done to realize the vision of integrated, efficient licensing.

The design and implementation of a credible reform plan, based on detailed assessments of the existing conditions, and accompanied by a robust monitoring and evaluation framework, is a prerequisite for success. This will require considerable resources and strong coordination across various agencies at both national and sub-national levels. Special task-forces have been assigned to carry out this work and have already identified priority areas where revision of existing regulations governing required licenses will be needed (for example, regarding forestry and land use, and environmental requirements).

The next set of reforms focus on priority sectors and lead into sub-national OSS

For the next phase of the reforms, BKPM has announced its plan to pursue regulatory simplification to reduce the number of steps and number of days required to obtain all licenses, starting with selected priority sectors, including the electricity, labor-intensive manufacturing, agriculture, and maritime sectors. Specifically, new electricity licenses for independent power producers (IPPs) have become a critical issue, as the government has set an ambitious target of an additional 35,000 megawatts in electricity generation capacity by 2019. The second phase of central OSS implementation will include further sectors at the national level. The piloting of sub-national OSS integration will be conducted in stages from January 2015 until the end of 2016.

A detailed mapping of all licenses will be an important step towards integrated processes

From an operational perspective, the government is working on an integrated business process for all licenses, planned to be implemented in stages, including the development of a new information and communications technology (ICT) system. The development of integrated business processes will require detailed mapping of all licenses. For example, initial mapping of electricity generation licenses needs to be followed up with specific mapping for different types of power generation, detailed business processes (step-by-step procedures for investors), and requirements and supporting documents and procedures for each license. Furthermore, an integrated business process will only make a significant difference to overall licensing procedures if the government can simplify and streamline the procedures first, and then apply these across central and sub-national OSS.

BKMP will need additional human resources and a reformed organizational setup

New business processes will require significant organizational changes. With some staff from ministries and agencies having so far only been temporarily assigned to work for the central OSS in BKPM, the organizational setup of BKPM, and the issue of human resources for business licensing, requires careful attention if longer-term sustainability is to be achieved.

Following through on high level commitments and managing implementation risks will be important

The targets are ambitious and the systematic and sustained implementation of new regulatory processes, across not just BKPM but all ministries and agencies, will be challenging. Implementation difficulties and delays could quickly come under the spotlight, and the government will need to carefully manage the risks associated with the reform plan. Much now depends on the extent to which high level support at all relevant ministries and agencies is achieved, sustained and translated through the reform implementation strategy into new and improved processes.
The guidelines include: (i) OSS are run by the central government (through BKPM) and by subnational governments; (ii) authority to issue licenses and other non-licensing facilities may be delegated by the technical ministries to the head of BKPM; and (iii) further provisions regarding OSS will be issued by regulations from BKPM.


Box 4: Past reform initiatives to develop a central OSS and simplify business licenses

Law No. 25/2007 on Investment mandated the establishment of one-stop services (OSS) for business licenses (Pelayanan Terpadu Satu Pintu, PTSP), with Presidential Regulation No. 27/2009 later providing implementation guidelines. Subsequently, the government identified the simplification of business licensing as a priority area and mandated BKPM to conduct a detailed mapping of the licensing process and draft new regulations to simplify this. For sub-national OSS, BKPM issued service standards for the implementation of OSS in 2009. This initially created some confusion, as the Ministry of Home Affairs had previously issued regulations (in 2007) concerning the division of responsibilities between national and sub-national governments. Ultimately, a lack of sustained high-level focus on streamlining and integrating licensing processes through the central OSS and sub-national OSS meant that only a handful of licenses (out of thousands) were delegated to BKPM, and overly complex and inefficient licensing procedures remain the norm for investors at both national and sub-national levels.

Presidential Regulation No. 27/2009 on PTSP also tasked BKPM with developing an electronic online system (Sistem Pelayanan Informasi dan Perizinan Investasi Secara Elektronik, SPIPISE) for investment licenses within three years. The system aimed to provide a national single window (NSW) for licensing applications and approvals. It was intended to involve the central OSS at the national level through BKPM, together with sub-national OSS through provincial and district and city governments. The online system was also to provide access to processes for the licenses issued by Indonesia’s technical ministries in order to create a single source of information for investors. Today, while this online system is running and can be accessed by investors through BKPM’s website, it is far from effective and issues remain to be resolved. Some sub-national governments also use the online platform, but far fewer than initially targeted.

Efforts to simplify business licenses and revitalization of the PTSP to attract investment were re-introduced in the August 2013 Economic Policy Package (see the December 2013 IEQ). Initially, the Government decided to focus on highly complex oil and gas sector licenses. However, the complexity of the sector and low ministerial-level commitment towards meaningful reform led to these efforts running out of steam. This experience provides a useful lesson on the importance of having strong and dedicated coordination, high-level ministerial commitment and a focus on specific sectors that are relatively easy to manage. Once success in those sectors is forthcoming, these experiences can be applied to increase the odds of success in more complex and challenging sectors.
3. The sustainable pace of GDP growth in Indonesia: a closer look

Indonesia’s sustainable pace of economic growth is in focus after the commodity boom

Economic growth has been slowing consistently, albeit gradually, in recent years. This slowdown has coincided with the weakening trend in global commodity prices since 2011, begging the question of to what extent previously high commodity prices provided a boost to growth and what pace of economic expansion can now be sustained in a post-commodity boom era. From an economic policy perspective, this question is particularly important in light of the government’s goal of lifting growth to 7 percent over its first term (i.e by 2019). This section examines the evidence on Indonesia’s recent growth dynamics and current sustainable growth rate as the commodity boom fades, while Part C focuses on the natural resource sector’s recent role in Indonesia’s economic development and the medium-term outlook.32

a. Commodity prices affect both cyclical and trend growth...

Commodity prices have played a major role in Indonesia's economic growth performance since 2003...

Commodity prices are an important determinant of growth in major commodity exporters such as Indonesia. As discussed in detail in Part C, persistently rising commodity prices in 2003-2007, and again in 2009-2010 during the recovery from the global financial crisis, resulted in higher corporate profits, household incomes and government revenues (Figure 30). This in turn boosted the demand for consumption, supporting domestic output of goods and services (along with an increase in imports) over this period. In addition, a significant increase in investment was observed, a portion of which supported the expansion of the productive capacity of the economy, especially in the mining sector (Figure 30). Construction sector investment also received a considerable boost during the commodity boom. Since 2013, however, investment and GDP growth have slowed down as the prices of Indonesia’s main export commodities have declined.

...but observed growth at any one time is not the same as Indonesia's sustainable growth...

To understand the implications of these shifts for Indonesia’s growth performance, it is important to distinguish between the economic growth observed at any one time, and potential (or sustainable) output. Potential output and the output gap are key macroeconomic concepts on which many important policy decisions depend. Economists generally define potential output as the level of output that is sustainable given the underlying structure of the economy. The output gap is the difference between actual GDP, as measured by a national statistical office, and potential output. Sustainability means that, other things equal, the level of potential output does not generate unwelcome economic outcomes such as high inflation or an unsustainably large current account deficit. Inflation tends to rise when output is above potential and vice versa.

...and commodity prices affect both the cyclical and the potential rate of growth

Potential output depends on many factors related to the underlying structure of the economy. The commodity boom boosted both potential output, through the rise in productive capacity, and actual output, through higher domestic demand. This explains why the country’s potential growth tends to move together with the global commodity cycle, but by less than one might think looking only at actual growth rates. Growth at any one time also reflects demand effects which are only temporary, unless new investment leads to permanently higher productivity growth.

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32 For a broader overview of recent development trends and challenges in Indonesia, see World Bank, 2014, Development Policy Review for Indonesia: “Indonesia: Avoiding the Trap”. 
b. ...which currently stands at approximately 5.5 percent...

Estimates of potential output can incorporate commodity prices...

How much of the recently observed decline in GDP growth can be attributed to lower sustainable growth and how much to the cyclical component of growth? To answer this question, World Bank staff have used a multivariate unobserved components model to estimate potential output growth (Box 5). In a second specification of the model, a price index of Indonesia’s five main export commodities was included in the equation for the output gap. This modification allows the cyclical effect of commodity prices to be separated out from their impact on potential growth.

...and doing so shows that impact of commodity prices on Indonesia’s sustainable growth is considerable...

The results indicate that potential output growth in Indonesia varies with commodity prices, rising in boom years and falling during downturns (Figure 30). When information about commodity prices is factored in, the rate of estimated sustainable growth fluctuates less than the alternative estimate. In some periods this difference is considerable, reaching 0.8 percentage points in annualized terms during the global financial crisis. In the most recent period, the estimates suggest that Indonesia’s commodity price-adjusted potential growth rate has slowed from 6.4 percent in 2011 to 5.5 percent in 2014.

Figure 30: Potential growth has slowed since 2012
(quarterly growth at an annualized rate, percent)

Note: The bars indicate the difference in percentage points between potential growth estimates which do not account for the role of commodity prices and estimates which do so.

Source: BPS; World Bank; World Bank staff calculations

The World Bank’s current estimate of potential output growth in Indonesia, accounting for lower commodity prices, is about 5.5 percent per year. This follows a decade during which potential growth was estimated at 6 percent or above. This suggests that a considerable portion of the recent growth slowdown (to 5.0 percent as of Q4 2014, see Part A) can be attributed to a reduction in the sustainable growth rate, due in part to lower commodity prices. Consequently, policymakers should not expect growth to bounce back easily to the 6-7 percent growth rates seen over 2010-2012. Instead, major policy reforms and implementation will be required, including in the area of investment licensing discussed in Part B.2 since the amount and quality of investment spending are critical determinants of growth. Furthermore, as discussed in Part C, challenges in the commodity sector may pose a continued headwind for growth.

c. ...suggesting that re-accelerating growth will require a policy push

...adding to the evidence that re-accelerating sustainable growth will require major reform progress

March 2015

THE WORLD BANK | BANK DUNIA
Box 5: Estimating potential output growth in Indonesia

How is potential output measured? Unlike actual GDP, which is calculated using household surveys, government budgets, financial statements of private and public enterprises etc., measuring potential output is challenging as it is not observed. Approaches to estimating potential output vary from univariate statistical methods to fully fledged structural models. The Hodrick-Prescott (HP) filter and the unobserved components model belong to the first group of estimation techniques. Their main advantages are low data requirements (only time series of GDP), transparency and simplicity. These methods filter out a trend component of GDP (potential output) from a cyclical one (output gap) at a particular frequency based solely on the statistical behavior of the GDP series. The main disadvantage of the purely statistical methods is that they do not incorporate economic information.

In contrast to univariate filters, multivariate filters combine the statistical approach with structural economic relationships. One such relationship is the Phillips curve, which describes a positive relation between (expected) inflation and the level of actual output. The Phillips curve contains information about the supply side of the economy and the stage of the business cycle. Following Gerlach and Smets (1999)\(^1\), World Bank staff have estimated a multivariate unobserved components model for Indonesia with data starting in 2000. In addition to the Phillips curve, the model includes an aggregate demand equation which relates the output gap to the real interest rate. The estimates show that Indonesia’s potential output rose steadily after the Asian financial crisis (Figure 31). It followed the trend in commodity prices, reaching 6.1 percent in 2007 at the peak of the commodity boom. After a decline related to the global financial crisis in 2008-2009, potential output increased to 6.4 percent in 2011 again on the back of strong commodity prices.

Going a step further, and adapting the idea of Borio, Disyatat and Juselius (2013)\(^2\), an index of Indonesia’s five main export commodity prices can be included in the aggregate demand equation. It can reasonably be expected that the commodity cycle amplifies Indonesia’s business cycle by boosting output temporarily (see Part A). The model estimates show precisely this: in periods of steep increases (decreases) in commodity prices, the commodity price neutral potential output grows at a more subdued (faster) pace compared with the non-adjusted potential output (Figure 31). For example, during the global financial crisis the commodity price adjusted potential output stood at 5.4 percent, 0.3 percentage points higher than the non-adjusted estimate. According to this approach, the World Bank’s current estimate of potential output growth is 5.5 percent.

Finally, the structural approaches derive a measure of potential output by estimating a structural economic model. These models allow for direct economic interpretation variables and are very useful for policy analysis, but they are data intensive, complex and hard to replicate. One of these methods is the production function approach (in this case, a Cobb-Douglas with constant returns to scale), which decomposes the growth rate of potential output into contributions from the following factor inputs: Indonesia’s physical capital stock, labor force, average years of schooling and the return to education (combined into “human capital”), and total factor productivity (Figure 32). The latter input is calculated as a residual and theoretically represents the effect of technological change and efficiency improvements. The results of this growth accounting exercise indicate that in Indonesia, like in other Asian emerging markets, capital accumulation contributed to a significant extent to growth (above 4 percentage points on average) in the 1980s and 1990s. In recent years, as the pace of capital accumulation declined (to 2.5 percentage points of total growth) relative to earlier decades, a larger part of potential growth (around 1.5 percentage points) was attributed to total factor productivity.

Figure 31: Potential output growth in Indonesia closely follows commodity price trends

(annual potential growth (LHS), percent; commodity price index excluding oil (contributions to annual growth, percentage points) (RHS), Q1 2010 = 100)

![Graph showing potential output growth in Indonesia compared to commodity prices.](image1)

Source: BPS; World Bank; World Bank staff calculations

Figure 32: Output growth has been driven less by physical capital and more by productivity since 2001

![Graph showing contributions to annual growth from capital stock, human capital, and total factor productivity.](image2)

Source: Barro and Lee (2010); BPS; Conference Board; UN; Van der Eng (2008); World Bank; World Bank staff calculations

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2 The authors include financial variables in their multivariate filter: Borio, C., Disyatat, P. and Juselius, M., 2013, “Rethinking potential output: Embedding information about the financial cycle”, BIS Working Papers No 404.
C. Indonesia 2016 and beyond: a selective look

1. Harnessing natural resources for Indonesia’s development

Indonesia’s abundant natural resource wealth made it well placed to take advantage of the commodity boom, but the boom is now over and the medium-term outlook is challenging

Indonesia is rich in hydrocarbons (coal, oil and natural gas), minerals (base metals and precious metals) as well as having abundant agricultural commodities (Table 8). A significant rise in commodity prices from 2002 to 2012 led to the natural resource sector contributing positively to nominal GDP growth, exports and investment over the past decade. However, the sector’s impact on real output growth, state revenues and local development outcomes was more limited. This section looks at the evolution of the natural resource sector during the commodity boom of 2002 to 2012, the impact of the sector on macroeconomic and human development outcomes during this period, the medium-term outlook for the sector, and ends with a discussion of the policy areas to be addressed to harness natural resources for Indonesia’s development.

Table 8: Natural resources contribute significantly to exports, revenues and output

<table>
<thead>
<tr>
<th>Contributions to total (percent), 2012</th>
<th>Exports</th>
<th>Public revenue*</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Natural resources - oil, gas and mining</td>
<td>39.0</td>
<td>28.0</td>
<td>16.5</td>
</tr>
<tr>
<td>Energy commodities</td>
<td>31.0</td>
<td>26.0</td>
<td>10.7</td>
</tr>
<tr>
<td>Crude oil</td>
<td>6.5</td>
<td>13.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Natural gas</td>
<td>10.8</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>13.8</td>
<td>4.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Non-energy mineral commodities</td>
<td>7.5</td>
<td>2.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Tin</td>
<td>1.2</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Nickel</td>
<td>1.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gold</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (iron ore, lead)</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Natural resources - forestry and fishery</td>
<td>2.3</td>
<td>0.5</td>
<td>7.0</td>
</tr>
<tr>
<td>III. Agricultural commodities</td>
<td>12.5</td>
<td>1.6</td>
<td>13.8</td>
</tr>
<tr>
<td>Crude palm oil (CPO)</td>
<td>6.5</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Rubber</td>
<td>4.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (including cocoa, coffee, tea)</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>53.8</td>
<td>30.1</td>
<td>37.3</td>
</tr>
</tbody>
</table>

Note: *Revenue includes tax (income and export taxes) and non-tax (production sharing, royalties, fees).
Source: BPS; BI; Ministry of Finance; World Bank staff calculations

33 This section focuses on the natural resource sectors of oil, gas and mining (coal and minerals including copper, gold, nickel, tin, bauxite, iron) and does not include an analysis of forestry and fisheries.
34 Base metals: tin, copper, nickel and aluminum. Precious metals: gold, silver and platinum.
35 The split between natural gas and crude oil is not available.
36 World Bank estimate assuming 95 percent of mining NTR is coal and 50 percent of mining tax is coal.
37 The split of non-coal mining revenue and GDP by type of mineral is not available.
38 The split of non-coal mining revenue and GDP by type of mineral is not available.
39 The majority of agricultural commodity revenues are from export tax on CPO.
a. The evolution of natural resource sector production during the boom

Driven by the unprecedented increase in demand, especially from China, and the short-term inelasticity of supply, the first decade of the 2000s saw a boom in global commodity prices...

From 2002 to 2012, emerging market economies’ GDP and industrial production grew at annual average rates of 6.3 and 7.8 percent. China’s GDP and industrial production grew even more rapidly, at annual average rates of 10.6 and 14.7 percent, respectively,40 resulting in exponential increases in commodity demand. For example, in 2012, China consumed nearly half of the 91 million tons of metals produced globally, up from just 15 percent of total global consumption in 2000. This rapid increase in demand interacted with a short-run inelasticity of supply, especially in the case of base metals41, to drive increases in commodity prices. All major global commodity price indices experienced sizable increases between 2002 and 2012: the global energy nominal price index (coal, crude oil and natural gas) increased four-fold; the metals and minerals nominal price index increased three-fold; the precious metals (including gold) index increased six-fold; and agricultural commodities such as CPO increased three-fold (Figure 33).42

Figure 33: Global energy and non-energy commodity prices increased dramatically between 2002 and 2012...

Price increases led to large production increases for some commodities in Indonesia, mostly for export. The increase was most dramatic for coal and crude palm oil, with a nearly four-fold increase, and nickel, with a three-fold increase, in production volumes from 2002 to 2013 (Figure 34). In contrast, production of crude oil fell by 35 percent, and natural gas and tin production remained stagnant, from 2002 to 2013. In the case of nickel and tin, almost all of the production was exported, either in raw or processed form, and for coal the share of exports in production increased, from 72 percent in 2002 to 80 percent in 2013. In contrast, for natural gas the share of domestic sales in production rose from 25 percent in 2002 to 50 percent in 2013, driven by an increase in the use of gas for domestic power generation and the enforcement of domestic market supply obligations.

Figure 34: …driving large increases in Indonesia’s production of some commodities

Source: World Bank Commodity Database

Note: Tin concentrate production statistics available through 2010. Source: BPS, ESDM, ITRI. World Bank staff calculations


41 This supply inelasticity is due to the time lag in projects going from exploration to production. For example, for tin, the median interval for a major project going from pre-feasibility to commissioning is 12 years, according to the International Tin Research Institute (ITRI).

The increase in production was also driven by the rise in mining licenses issued at the local level, which also increased the market share of smaller producers.

Indonesia’s new Mining Law, issued in 2009, essentially replaced the system of contract-based concessions issued at the central level with a licensing-based concession system, in which mining licenses (Izin Usaha Pertambangan, IUP) are issued at the district level. This drove a proliferation of coal and mining IUP license issuance post-2009 until 2012, when a moratorium on new licenses was put in place. Estimates show a near ten-fold increase in the number of licenses to 11,000 in 2014,43 in turn driving an increase in production by smaller producers, as the maximum concession size of an IUP, at 25,000 hectares, is an order of magnitude smaller than the average size of a contract-based concession, at 200,000 hectares. The market share of smaller producers in coal increased from 26 percent in 2005 to 37 percent in 2012.

The sector also saw a shift towards domestic ownership.

Pertamina, a state-owned enterprise, increased its market share from 13 percent in 2005 to 23 percent in 2012 in crude oil and from 12 percent in 2005 to 18 percent in 2012 in natural gas, through joint ventures and the acquisition of shares in production-sharing contracts (PSCs) nearing extension.44 Other major commodities are also now dominated by domestically owned companies; in 2012, close to 100 percent of tin production, 95 percent of thermal coal production and 80 percent of nickel production, came from domestically owned companies.

b. The natural resource sector’s contribution to macroeconomic and human development outcomes during the commodity boom

The growth in the natural resource sector had a sizeable impact on nominal GDP growth, but the direct impact on real GDP growth was minimal...

The natural resource sector accounted directly for 14.5 percent of nominal GDP growth between 2002 and 2012 (Figure 35).45 Furthermore, the correlation – which captures direct and indirect linkages - between nominal GDP growth and commodity (natural resource sector and agricultural) prices strengthened over time, doubling in the period 2007-13, compared with 2003-06. In contrast to nominal GDP growth, the natural resource sector accounted for only 2 percent of real GDP growth between 2002 and 2012, weakening to close to 1 percent since 2012 (Figure 36). The muted direct contribution to real GDP growth is a result of the sector growth being in prices, rather than in production and real value addition.

...while the sector had an indirect impact by boosting aggregate demand, and, to a lesser extent through production linkages with other sectors.

The nominal growth in the commodity sector had a significant impact on corporate revenue, profits and wealth, as well as household income, which in turn boosted aggregate demand in the economy. However, the commodity sector appears to have relatively limited production linkages with other sectors in the economy. Input-output tables show that an IDR 1 increase in the final demand for raw commodities, including natural resources and agricultural commodities, is associated with only an IDR 1.5 increase in output for all sectors in the economy, which is lower than other sectors such as manufacturing (IDR 2.5 increase).46

43 2014/15 Indonesia Coal Book, Petromindo.
44 Data on production structure is available only post-2005, and is derived from ESDM annual mining statistics reports for coal, and SKK Migas annual reports for crude oil.
45 The agricultural commodity sector, especially CPO, contributed a further 11 percent to nominal GDP growth between 2002 and 2012.
46 Calculation based on the most recent (2008) input-output tables.
The natural resource sector had a positive impact on the external balance during the commodity boom

Indonesia’s terms of trade increased by 74 percent from 2002 to 2013, driven mainly by higher commodity export prices. Natural resource sector commodities and agricultural commodities together contributed 7.6 percentage points to average annual nominal export growth from 2002 to 2013, compared to only 3.6 percentage points from manufacturing (Figure 37). The surge in Indonesia’s net commodity exports was responsible for keeping the overall goods trade balance in surplus (Figure 38), with the commodity trade balance averaging 6.1 percent of GDP from 2002 to 2013, while the non-commodity balance averaged only 0.2 percent of GDP. This reliance on commodity exports to pay for mainly non-commodity imports may be in line with Indonesia’s comparative advantage, but does make the economy vulnerable to commodity price volatility (see Box 2, and Part A, Section 7).

In contrast to the natural resource sector as a whole, crude oil had a negative impact on the trade balance

Indonesia’s crude oil production declined in the last decade, from 1.26 million barrels in 2002 to 861,000 barrels per day in 2012, while crude oil consumption, driven by fuel consumption in the transport sector, increased rapidly (Figure 39). Indonesia thus became a net crude oil importer in 2004 (Figure 40) and left the Organization of the Petroleum Exporting Countries (OPEC) in 2008. Coupled with the historically high crude oil prices in the 2000s, this led to a widening in the oil trade deficit to USD 23 billion in 2012 (Figure 43). Since 2012, even with the moderation in oil prices, the oil trade deficit has continued to increase, to USD 25 billion in 2014, reflecting ongoing declines in oil production and increased fuel consumption.

The rise in corporate income and profits contributed to a significant increase in the stock market

The 20-fold rise in the mining equity price index from end-2002 to end-2012 contributed to a 10-fold increase in the overall equity index. Due to these sizeable equity price increases, and new equity issuance, local equity market capitalization rose from 16 percent of GDP in 2000-02 to 49 percent of GDP in 2010-12. The mining and agriculture sectors directly contributed around one-fifth of this increase.

The commodity boom also supported a marked rise in the investment-to-GDP ratio

After falling dramatically after the 1997/98 crisis, Indonesia’s investment-to-GDP ratio recovered strongly, moving up to 32 percent in 2012. While much of this increase was due to rising investment prices, real investment growth averaged an annual 8.4 percent over 2008-12. This reflects higher investment in commodity sectors due to increased returns in those sectors, as well as higher investment in non-commodity sectors, including due to a growing pool of investable funds due to natural resource sector-based profits. However, much of the investment was in construction rather than productivity-enhancing infrastructure.

The mining sector has attracted FDI, but largely into “brown-field” projects

From 2009 to 2013, there was a 14-fold increase in non-oil and gas mining foreign direct investment (FDI) from USD 330 million to USD 4.8 billion. However, much of this FDI was “brown-field” investment to support the operations of existing projects, such as investments for the Grasberg copper mine, rather than for the development of new “green-field” projects.

---

47 Within the commodities category, natural resource sectors have contributed 3.7 percentage points annually on average while agricultural commodities have contributed 3.9 percentage points to nominal export growth. This does not include commodity-based manufacturing.

48 The mining equity price index includes only listed stocks of mining (coal and mineral commodities) companies and does not include oil and gas companies.

49 Accurate data on FDI in the oil and gas sector from 2002 and 2013 is not available. However, the trend of decreased exploration in oil and stagnant exploration for gas suggests that FDI in the oil and gas sector may not have increased significantly in this period.
Figure 35: The natural resource sector contributed substantially to growth in nominal GDP…
(contribution to year-on-year nominal growth, percentage points)

Figure 36: …but the contribution of the natural resource sector to real GDP growth has been muted
(contribution to year-on-year real growth, percentage points)

Source: BPS; World Bank staff calculations

Figure 37: The contribution of commodities to export growth has exceeded that of manufacturing products
(contribution to nominal export growth, percentage points)

Figure 38: Commodities, including natural resources, have supported the overall trade balance
(percent of nominal GDP)

Source: WITS; World Bank Staff calculations

Figure 39: Indonesia has been a net oil importer since 2004…
(daily crude oil production and consumption, thousand barrels)

Figure 40: …and the oil deficit widened through 2014, also driven by increasing crude oil prices
(oil exports, imports and oil trade balance, nominal USD billion)

Source: BP Statistical Review of World Energy; World Bank staff calculations

Source: BPS; World Bank staff calculations
While the natural resource sectors remain important for government revenues, their share of total revenues has been declining. Natural resource tax and non-tax revenue has declined as a share of total revenue, from 31.4 percent in 2002 to 28 percent in 2012 (oil revenue fell from 16.1 percent to 13.9 percent, gas revenue fell from 9.9 percent to 8.1 percent in 2012, while mining revenue rose marginally from 5.2 percent to 6.0 percent) (Figure 41). The key drivers of oil and gas revenue are the rupiah-denominated gross value of oil lifting and gas production and the effective government share of the value of production. The gross value of oil lifting and of gas production declined as a share of GDP from 2002 to 2012 as the decline in production partly offset rising oil and gas prices and a depreciating rupiah.

Weak compliance has been an issue, especially in coal. The rate of increase in mining revenue has not matched the increase in the value of production, indicating losses from weak compliance. This is especially evident in the case of coal, where the coal price and production both increased on average by 14 percent annually from 2002 to 2012, which should have led to a 30 percent annual increase in coal-related revenues, given the absence of major changes in the fiscal regime. However, revenue from coal sales only increased 18 percent annually from 2002 to 2012. A joint study conducted by the World Bank and the Ministry of Finance on mining non-tax revenue (NTR) administration, focusing on coal, estimated that 22 to 46 percent of potential NTR (IDR 16-51 trillion) from reported coal sales was not collected in the 2010-12 period due to weak compliance.

Jobs in the natural resource sector are higher skilled than other primary sectors, and offer higher wages but are limited in number. In 2010, the average monthly wage was IDR 2.5 million for the natural resource sector, as compared to IDR 1.2 million for the secondary and IDR 1.5 million for the tertiary sector. Within the primary sectors, the natural resource sector also had the highest percentage of workers with above high school education, at 28 percent of total workers compared with 9 percent in non-food crop agriculture and 10 percent for food crop agriculture. Employment grew in the sector during the boom but, being capital-intensive, the sector only accounted directly for 1.2 percent of total employment in 2010, compared with a contribution of 9.5 percent of GDP.

---

50 Mainly volumes of oil & gas surrendered to the state, and production royalties for coal and minerals.
51 Oil and gas PSCs require contractors to pay make royalty payments linked to the rupiah-denominated gross value of production as well as pay corporate income tax.
The boom boosted revenues significantly in resource-rich districts but this did not translate into development outcomes. The commodity boom led to a 43 percent increase between 2007 and 2011 in natural resources revenue shared with districts, with resource-rich districts\(^{52}\) enjoying double the fiscal resources per capita - at IDR 4 million compared with IDR 2 million for other districts (Figure 42). However, despite the higher level of spending per capita for provision of public services such as infrastructure, health and water and sanitation, resource-rich districts have some of the worst service delivery outcomes, comparable to outcomes at geographically remote districts, notably for paved district roads, access to water and sanitation, and skilled birth attendance (Figure 43).

Figure 42: Resource-rich districts have the highest fiscal resources on account of revenue sharing…

<table>
<thead>
<tr>
<th>Expenditure per capita by sector in 2009, nominal thousand IDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Resource Rich</td>
</tr>
<tr>
<td>5,000</td>
</tr>
</tbody>
</table>

Figure 43: …but have poor public service outcomes, including access to basic services

<table>
<thead>
<tr>
<th>Access to basic services in 2009, percent of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior high school NER</td>
</tr>
<tr>
<td>Resource rich</td>
</tr>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

The price decline is structural and is driven by declining global demand and oversupply from projects initiated during the commodity boom. For coal, base metals and precious metals, the key factors driving the decline are declining demand from China and over-supply from projects that were initiated during the commodity boom. The decline in oil prices has been driven by the increase in global supply from unconventional oil sources in North America, a moderation of demand, especially in the OECD countries and the lack of supply response from OPEC. Liquefied Natural Gas (LNG) prices, which are relevant as Indonesia’s is the world’s third largest LNG exporter, are expected to decline in line with crude oil prices as contracts for sales are often indexed to oil prices.

\(^{52}\) Resource-rich districts are defined as districts driving 10 percent or more of regional GDP from commodities, including the natural resource sectors and agricultural commodities.

Prices for Indonesia’s natural resource commodities are projected to continue to moderate. The prices of Indonesia’s natural resources exports have declined significantly from their peaks, with a 45 percent decline in the price of coal, a greater than 50 percent decline in crude oil prices and a 25 percent decline in the metals and minerals price index from 2011 to end-2014 (Figure 44). In the medium term, international coal prices are projected to increase marginally from end-2014 levels to USD 79 per ton by 2019, still 35 percent below the peak in late 2011. Similarly, for crude oil, natural gas, and nickel, prices are projected to recover marginally by 2019, but still remain at 34 percent, 26 percent and 27 percent below their end-2011 peak levels respectively.
The medium-term outlook for production of oil and gas is subdued, as a result of low exploration expenditure during the commodity boom

Indonesia did not see an increase in crude oil and natural gas exploration activity while commodity prices were rising in the 2000s. Overall exploration expenditure declined by 50 percent from the 1998 peak to 2012 (Figure 45). Further, exploration became more expensive as potential new fields were offshore. As a result, Indonesia has seen a depletion of crude oil reserves by 30 percent since 1997, and only a 10 percent increase in natural gas reserves in the same period. The reserve replacement ratio for crude oil was at 50 percent in 2012, which implies that for every 2 barrels of crude oil produced in Indonesia, only 1 barrel is replaced in reserves. The reserve replacement ratio for natural gas is higher at 127 percent, reflecting the relatively higher exploration activity for natural gas over the 2000s.

Concerns about production-sharing contracts and cost recovery contributed to the slowdown in oil and gas exploration

Annual PwC surveys\(^5\) of the oil and gas sector in Indonesia show growing concern among investors over the future of production-sharing contracts, which currently provide the legal basis for all major oil and gas operations in Indonesia, and the terms under which expiring PSCs will be extended. Over half of investors rated contract sanctity as a “significantly important” concern in the 2012 survey, compared to 32 percent in 2008. In addition, 48 percent of investors rated uncertainty over tightening regulations on cost recovery as a “significantly important” concern in the 2012 survey, compared to 37 percent in 2008 (cost recovery is a provision under PSCs that allows companies to recover exploration and other expenditures). These concerns, along with regulatory hurdles of dealing with permits at multiple levels of government (see Part B.2 on business licensing more generally), contributed to the persistently low levels of exploration investment.

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\(^5\) PricewaterhouseCoopers Indonesia Oil and Gas Survey, 2008 and 2012.
The decline in exploration for new oil fields combined with maturing fields is expected to lead to a continuing fall in oil lifting through the medium-term. The majority of Indonesia’s oil fields are maturing and require expensive enhanced recovery methods to continue production. The lack of exploration investment has lowered the likelihood of adding new fields in the medium-term. Furthermore, assuming a lead time from exploration to discovery and production from new fields of at least 5 years, even if there are new discoveries in the near future, they are unlikely to offset the decline in lifting from existing aging fields in the medium-term. Therefore, the baseline projection is for a continued decline in oil lifting by 18 percent from 2014 to 2019, from 818,000 to 670,000 barrels per day (Figure 46).

Gas production may also decline on account of the uncertain production outlook from major gas blocks. Gas exploration activity has been stronger than oil with a ten-fold increase in the number of gas wells completed over 2002-2012, implying a more positive medium-term outlook for gas production. However, investments in existing major gas blocks such as the Mahakam natural gas block have been stalled due to continuing regulatory uncertainty over PSCs. This is one factor behind the World Bank’s baseline projection of a decline in gas production by 12 percent from 2014 to 2019.

In mining, low exploration expenditure reflects a weak policy and regulatory environment, and the impact of the January 2014 mineral ore export ban. While time-series data on exploration expenditure for coal and other minerals are not available, the decline in existing mineral reserves suggests that exploration investment has also been low. Despite its high geological potential, Indonesia in 2012 attracted less than 1 percent of global mineral exploration expenditure. The Fraser Institute survey of global mining companies in 2013 placed Indonesia near the bottom of 96 countries and jurisdictions surveyed in terms of a conducive policy environment to facilitate investments in non-oil and gas mining. In January 2014, the government introduced regulations to ban the export of unprocessed nickel and bauxite, and imposed an export tax on other unprocessed minerals.

The moderation in prices and subdued production outlook are expected to continue weighing. The dominance of commodities in Indonesia’s exports, coupled with a negative terms-of-trade shock due to declining commodity prices since mid-2011 and declining commodity demand in the main export markets of Japan and China, has driven down Indonesia’s exports since 2011 (see Part A, Box 2). Sustained moderation in commodity prices, declining crude oil and gas production and

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54 The Mahakam block, formerly operated by Total, is Indonesia’s largest block accounting for 25 percent of the country’s total gas production in 2013. The PSC is expiring in 2017. Total announced in October 2013, that, due to lack of clarity on PSC extension, the company would suspend USD 7.3 billion in planned investment from 2014-17. The period of uncertainty has seen a 20 percent decline in production from the block.


56 The World Bank projected that this policy would lead to a negative impact on net trade of USD 12.5 billion and a total loss in fiscal revenues of USD 6.5 billion during 2014-17, on account of declining unprocessed mineral exports and increased imports (for building and maintenance of smelters), which would not be offset by increased processed mineral exports (see the March 2014 IEQ). For a follow-up on the impact of the ban on mineral exports, see the July 2014 IEQ.
on the external balances

continued restrictions on mineral ore exports will all place pressures on Indonesia’s external balances over the medium-term.

There will also be heightened fiscal pressure from lower projected natural resource-related revenues

Total revenue-to-GDP is projected to fall from 15.2 percent in 2014 to 13.3 percent in 2019, under a “business as usual” scenario (i.e. in the absence of major revenue policy or administration reforms). Non-oil and gas income tax and consumption taxes are projected to increase from a total of 10.0 percent to 10.4 percent of GDP. This is offset by the projected significant fall (in absolute terms and as a share of GDP) in oil and gas revenue, from 3.0 percent to 0.8 percent of GDP, due to the projected decline of the revenue base (the rupiah-denominated gross production values of oil and gas). Lower oil prices also reduce government expenditures on fuel (diesel, kerosene and LPG) and electricity subsidies, but the net fiscal impact is negative because the decline in revenue is more than the reduction in expenditure.

More broadly, weaker natural resource sector conditions are expected to impact employment, investment and ultimately growth

The slowdown in the commodities sector has been correlated with a slowdown in nominal GDP growth since 2012. The negative impact on economic growth will be more severe in resource-rich regions such as Aceh, East Kalimantan, Papua, Riau and West Papua, which experienced significantly lower year-on-year real GDP growth rates in 2014 than the national average. Lower commodity prices have played a significant role in reducing Indonesia’s GDP growth rate since 2012 (see Part B.3). The continued moderation in prices anticipated in the baseline scenario will make re-accelerating sustainable growth more challenging.

d. Maximizing benefits and minimizing risks from natural resources

The end of the commodity boom makes it even more critical to manage the natural resource sector well, in order to maximize benefits and reduce risks

Indonesia’s natural resource sector will continue to be important for output, exports and national public revenues, and remain a key determinant of fiscal and economic conditions in resource-rich regions. Moreover, the development of energy commodities, and specifically the gas sector, are vital to Indonesia’s ambitious energy goals. However, the negative economic impacts of the commodity slowdown are already evident. In the face of these headwinds, and to help ensure that Indonesia obtains the maximum benefits from its natural resources, despite the end of the 2003-2012 commodity boom, it is more critical than ever that there is progress on developing sound policy and regulatory frameworks for, and effective public management of, the sector. Such progress is a prerequisite to increase investment, sustainably collect more revenue and translate natural resource activities and revenue into desirable development outcomes. Over the longer-term, reducing the risks and vulnerabilities associated with reliance on the natural resource sector and potentially volatile global commodity prices will require policy reforms and implementation to support the non-commodity sectors.

The starting point is to attract quality production and exploration investments

Improving the investment climate for oil and gas investments requires resolving the uncertainty regarding the status and renewal of PSCs, simplifying the regulatory processes affecting firms in the sector, and reducing the number of permits required for exploration. In mining, it will be critical to complete the so-called “Clean and Clear” process for determining, and resolving overlapping, mining concessions and to create a time-bound process for processing Contract of Works extensions.

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57 See the December 2014 IEQ for a discussion of Indonesia's revenue performance and medium-term revenue outlook. The oil price assumption used for the revenue projections at that time was USD 85 per barrel. The World Bank’s latest medium-term projections, as reflected in this edition of the IEQ, are based on lower prices of USD 55 per barrel for 2015, with a recovery to USD 69 per barrel by 2019.

58 Papua, East Kalimantan and Riau derive between 42 percent and 68 percent of their regional GDP from oil and gas and mining and quarrying sectors.

59 For a more detailed discussion see the July 2014 IEQ.

<table>
<thead>
<tr>
<th>Policies to create economic linkages, boost local employment and reduce environmental damage are important…</th>
<th>Natural resource activities directly affect development outcomes, especially at the local level, through employment generation, backward and forward production linkages, and the environmental impact of operations. To increase net benefits, there need to be effective policies on local benefit-sharing, and stronger oversight of companies’ social, environmental and labor obligations. This in turn relies on the creation of an accurate national mining ownership register (cadaster), which includes all locally-issued IUP licenses, and which links cadastral information with forestry and other land use sectors, together forming a reliable national view (or “One Map”). At the national level, there is no clear strategy to develop production linkages between natural resource and other sectors, with the focus so far on downstream development within the sector through the domestic mineral processing policy (raising concerns over the policy’s economic viability).</th>
</tr>
</thead>
<tbody>
<tr>
<td>...as is collecting the full resource revenue potential through improving administration and investing it in human and physical capital</td>
<td>To collect the full revenue potential (under the existing fiscal regime) of the mining sector requires strengthening the non-tax revenue administration system for mining and tackling illegal mining. Simply increasing rates, for example the royalty rate, to mobilize revenue may not be effective, due to lower prices in the medium-term. Currently, there is no policy on using resource revenue to increase the stock of human and physical capital to replace depleted natural capital. There is also at present no strategy for managing the volatility of revenue from commodity cycles and for determining how much to spend today versus saving for the future.</td>
</tr>
<tr>
<td>The sector should also support Indonesia’s energy objectives</td>
<td>A large share of Indonesia’s population still has no access to electricity, and industrial development is constrained by a lack of reliable and affordable power. The development of the gas sector is particularly important for increasing access to cleaner fuels than coal. To incentivize upstream gas and gas infrastructure investments (to link upstream and downstream) requires developing a transparent, market-linked mechanism for domestic gas pricing; creating a gas aggregator and resolving the issues surrounding renewal of PSCs.</td>
</tr>
<tr>
<td>Improving transparency in the sector to reduce rent-seeking activities, will continue to be critical</td>
<td>In Indonesia as elsewhere, there are strong incentives to capture the super-normal profits (“rents”) associated with mining activity, and corruption remains a serious issue that limits the sharing of benefits. More transparency is critical in reducing the space for corruption and supporting anti-corruption efforts. Although there has been progress, particularly on revenues through the Extractive Industries Transparency Initiative (EITI), much of the sector still lacks transparency (for example, in sharing information related to the awarding of contracts and licenses).</td>
</tr>
<tr>
<td>The process of developing and implementing policies across all areas should aim to reduce uncertainty</td>
<td>Policy uncertainty in the sector is cited by investors as one of their biggest concerns. This uncertainty can be reduced by involving industry in policy deliberations and processes, and communicating decisions in a timely fashion. Building, taking into account of, and communicating, the evidence-base for policy can also play a key role, particularly to clarify the trade-offs between different objectives (for example, export promotion versus domestic consumption, and reducing extraction rates versus meeting energy demands), so that there is consistency and complementarity among policies.</td>
</tr>
</tbody>
</table>
APPENDIX: A SNAPSHOT OF INDONESIAN ECONOMIC INDICATORS

Appendix Figure 1: Quarterly and annual GDP growth
(real GDP growth, percent)

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

Note: *Average QoQ growth, Q2 2008–Q4 2014
Source: BPS; World Bank staff calculations

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

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

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

Source: BPS; World Bank staff calculations
Source: CEIC; World Bank staff calculations

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

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

Source: BI
Source: BPS; Markit HSBC Purchasing Managers Index
Appendix Figure 7: Balance of payments (USD billion)

Appendix Figure 8: Current account balances (USD billion, LHS, and percent, RHS)

Appendix Figure 9: Exports of goods (3-month moving average, USD billion)

Appendix Figure 10: Imports of goods (3-month moving average, USD billion)

Appendix Figure 11: Reserves and capital inflows (USD billion)

Appendix Figure 12: Inflation and monetary policy (month-on-month and year-on-year growth, percent)

Source: BI

Source: BI; World Bank staff calculations

Source: BPS

Source: BPS; World Bank staff calculations
**Appendix Figure 13: Monthly breakdown of CPI**
(percentage point contributions to monthly growth)

**Appendix Figure 14: Inflation comparison across countries**
(year-on-year, February 2015)

Source: BPS; World Bank staff calculations

*February is the latest available month, others January

Source: National statistical agencies via CEIC; BPS

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

Source: Cipinang wholesale rice market; FAO; World Bank

Source: BPS

**Appendix Figure 16: Poverty and unemployment rate**
(percent)

Source: BPS

**Appendix Figure 17: Regional equity indices**
(daily index in local currency, March 9, 2012=100)

Source: CEIC; World Bank staff calculations

**Appendix Figure 18: Selected currencies against USD**
(monthly index February 2012=100)

Source: CEIC; World Bank staff calculations

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**March 2015**

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Appendix Figure 19: 5-year local currency govt. bond yields
(percent)

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

Appendix Figure 21: Commercial and rural credit and deposit growth
(year on year growth, percent)

Appendix Figure 22: Banking sector indicators
(monthly, percent)

Appendix Figure 23: Government debt
(percent of GDP; USD billion)

Appendix Figure 24: External debt
(percent of GDP; USD billion)
## Appendix Table 1: Budget outcomes and projections

### (IDR trillion)

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Actual</td>
<td>Actual</td>
<td>Actual</td>
<td>Actual</td>
<td>Actual</td>
<td>Preliminary actual</td>
<td>Revised budget</td>
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<tr>
<td><strong>A. State revenue and grants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Tax revenue</td>
<td>620</td>
<td>723</td>
<td>874</td>
<td>981</td>
<td>1,077</td>
<td>1,143</td>
<td>1,489</td>
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<tr>
<td>2. Non-tax revenue</td>
<td>227</td>
<td>269</td>
<td>331</td>
<td>352</td>
<td>355</td>
<td>391</td>
<td>269</td>
</tr>
<tr>
<td><strong>B. Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Central government</td>
<td>629</td>
<td>697</td>
<td>884</td>
<td>1,011</td>
<td>1,137</td>
<td>1,191</td>
<td>1,320</td>
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<tr>
<td>2. Transfers to the regions</td>
<td>309</td>
<td>345</td>
<td>411</td>
<td>481</td>
<td>513</td>
<td>574</td>
<td>665</td>
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<tr>
<td><strong>C. Primary balance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D. SURPLUS / DEFICIT</strong> (percent of GDP)</td>
<td></td>
<td></td>
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<td></td>
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</table>

Note: Budget balance as percentage of GDP is using revised and 2010 rebased GDP.
Source: Ministry of Finance

## Appendix Table 2: Balance of payments

### (USD billion)

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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</thead>
<tbody>
<tr>
<td><strong>Balance of payments</strong></td>
<td>0.2</td>
<td>-7.3</td>
<td>15.2</td>
</tr>
<tr>
<td>Percent of GDP</td>
<td>0.0</td>
<td>-0.8</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Current account</strong></td>
<td>-24.4</td>
<td>-29.1</td>
<td>-26.2</td>
</tr>
<tr>
<td>Percent of GDP</td>
<td>-2.7</td>
<td>-3.2</td>
<td>-3.0</td>
</tr>
<tr>
<td>Trade balance</td>
<td>-1.9</td>
<td>-6.2</td>
<td>-3.6</td>
</tr>
<tr>
<td>Net income &amp; current transfers</td>
<td>-22.5</td>
<td>-22.9</td>
<td>-22.6</td>
</tr>
<tr>
<td><strong>Capital &amp; Financial Account</strong></td>
<td>24.9</td>
<td>22.0</td>
<td>43.6</td>
</tr>
<tr>
<td>Percent of GDP</td>
<td>2.7</td>
<td>2.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Direct investment</td>
<td>13.7</td>
<td>12.3</td>
<td>15.3</td>
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<tr>
<td>Portfolio investment</td>
<td>9.2</td>
<td>10.9</td>
<td>25.8</td>
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<tr>
<td>Other investment</td>
<td>1.9</td>
<td>-1.2</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Errors &amp; omissions</strong></td>
<td>-0.3</td>
<td>-0.2</td>
<td>-2.1</td>
</tr>
<tr>
<td><strong>Foreign reserves</strong></td>
<td>112.8</td>
<td>99.4</td>
<td>112.0</td>
</tr>
</tbody>
</table>

Note: * Reserves at end-period
Source: BI; BPS
### Appendix Table 3: Indonesia’s historical macroeconomic indicators at a glance

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<tr>
<td>Real GDP</td>
<td>8.4</td>
<td>4.9</td>
<td>5.7</td>
<td>6.4</td>
<td>6.2</td>
<td>6.0</td>
<td>5.6</td>
<td>5.0</td>
</tr>
<tr>
<td>Real investment</td>
<td>22.6</td>
<td>11.4</td>
<td>10.9</td>
<td>6.7</td>
<td>8.9</td>
<td>9.1</td>
<td>5.3</td>
<td>4.1</td>
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<tr>
<td>Real consumption</td>
<td>21.7</td>
<td>4.6</td>
<td>64.4</td>
<td>4.1</td>
<td>5.1</td>
<td>5.4</td>
<td>5.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Private</td>
<td>22.7</td>
<td>3.7</td>
<td>0.9</td>
<td>4.1</td>
<td>5.1</td>
<td>5.5</td>
<td>5.4</td>
<td>5.3</td>
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<tr>
<td>Government</td>
<td>14.7</td>
<td>14.2</td>
<td>6.6</td>
<td>4.0</td>
<td>5.5</td>
<td>4.5</td>
<td>6.9</td>
<td>2.0</td>
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<tr>
<td>Real exports, GNFS</td>
<td>18.0</td>
<td>30.6</td>
<td>16.6</td>
<td>15.3</td>
<td>14.8</td>
<td>1.6</td>
<td>4.2</td>
<td>1.0</td>
</tr>
<tr>
<td>Real imports, GNFS</td>
<td>29.6</td>
<td>26.6</td>
<td>17.8</td>
<td>16.6</td>
<td>15.0</td>
<td>8.0</td>
<td>1.9</td>
<td>2.2</td>
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<tr>
<td>Investment (% GDP)</td>
<td>28</td>
<td>20</td>
<td>24</td>
<td>31</td>
<td>31</td>
<td>33</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>Nominal GDP (USD billion)</td>
<td>202</td>
<td>165</td>
<td>286</td>
<td>755</td>
<td>893</td>
<td>918</td>
<td>910</td>
<td>889</td>
</tr>
<tr>
<td>GDP per capita (USD)</td>
<td>1229</td>
<td>948</td>
<td>1,560</td>
<td>3,233</td>
<td>3,663</td>
<td>3,718</td>
<td>3,644</td>
<td>3,524</td>
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</tr>
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<tr>
<td>Revenues and grants</td>
<td>15.2</td>
<td>20.8</td>
<td>17.9</td>
<td>14.5</td>
<td>15.5</td>
<td>15.5</td>
<td>15.1</td>
<td>14.6</td>
</tr>
<tr>
<td>Non-tax revenue</td>
<td>4.8</td>
<td>9.0</td>
<td>5.3</td>
<td>3.9</td>
<td>4.2</td>
<td>4.1</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>Tax revenue</td>
<td>10.3</td>
<td>11.7</td>
<td>12.5</td>
<td>10.5</td>
<td>11.2</td>
<td>11.4</td>
<td>11.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Expenditure</td>
<td>13.9</td>
<td>22.4</td>
<td>18.4</td>
<td>15.2</td>
<td>16.5</td>
<td>17.3</td>
<td>17.3</td>
<td>16.7</td>
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<tr>
<td>Consumption</td>
<td>3.9</td>
<td>4.0</td>
<td>3.0</td>
<td>3.6</td>
<td>3.8</td>
<td>3.9</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>Capital</td>
<td>4.6</td>
<td>2.6</td>
<td>1.2</td>
<td>1.2</td>
<td>1.5</td>
<td>1.7</td>
<td>1.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Interest</td>
<td>1.4</td>
<td>5.1</td>
<td>2.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Subsidies</td>
<td>..</td>
<td>6.3</td>
<td>4.4</td>
<td>2.8</td>
<td>3.8</td>
<td>4.0</td>
<td>3.7</td>
<td>3.7</td>
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<tr>
<td>Budget balance</td>
<td>1.3</td>
<td>-1.6</td>
<td>-0.6</td>
<td>-0.7</td>
<td>-1.1</td>
<td>-1.8</td>
<td>-2.2</td>
<td>-2.2</td>
</tr>
<tr>
<td>Government debt</td>
<td>32.3</td>
<td>97.9</td>
<td>47.2</td>
<td>24.3</td>
<td>22.8</td>
<td>22.6</td>
<td>24.1</td>
<td>23.9</td>
</tr>
<tr>
<td>o/w external government debt</td>
<td>32.3</td>
<td>51.4</td>
<td>23.4</td>
<td>11.1</td>
<td>10.2</td>
<td>9.9</td>
<td>11.2</td>
<td>10.2</td>
</tr>
<tr>
<td>Total external debt (including private sector)</td>
<td>61.5</td>
<td>87.1</td>
<td>47.1</td>
<td>26.8</td>
<td>25.2</td>
<td>27.5</td>
<td>29.2</td>
<td>32.9</td>
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<tbody>
<tr>
<td>Overall balance of payments</td>
<td>..</td>
<td>..</td>
<td>0.2</td>
<td>4.0</td>
<td>1.3</td>
<td>0.0</td>
<td>-0.8</td>
<td>1.7</td>
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<tr>
<td>Current account balance</td>
<td>3.2</td>
<td>4.8</td>
<td>0.1</td>
<td>0.7</td>
<td>0.2</td>
<td>-2.7</td>
<td>-3.2</td>
<td>-3.0</td>
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<tr>
<td>Exports GNFS</td>
<td>26.2</td>
<td>42.8</td>
<td>35.0</td>
<td>22.0</td>
<td>23.8</td>
<td>23.0</td>
<td>22.5</td>
<td>22.3</td>
</tr>
<tr>
<td>Imports GNFS</td>
<td>26.9</td>
<td>33.9</td>
<td>32.0</td>
<td>19.2</td>
<td>21.2</td>
<td>23.2</td>
<td>23.1</td>
<td>22.7</td>
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<tr>
<td>Trade balance</td>
<td>-0.8</td>
<td>8.9</td>
<td>2.9</td>
<td>2.8</td>
<td>2.7</td>
<td>-0.2</td>
<td>-0.7</td>
<td>-0.4</td>
</tr>
<tr>
<td>Financial account balance</td>
<td>..</td>
<td>..</td>
<td>0.0</td>
<td>3.5</td>
<td>1.5</td>
<td>2.7</td>
<td>2.4</td>
<td>4.9</td>
</tr>
<tr>
<td>Net direct investment</td>
<td>2.2</td>
<td>-2.8</td>
<td>1.8</td>
<td>1.5</td>
<td>1.3</td>
<td>1.5</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Gross official reserves (USD billion)</td>
<td>14.9</td>
<td>29.4</td>
<td>34.7</td>
<td>96.2</td>
<td>110.1</td>
<td>112.8</td>
<td>99.4</td>
<td>112.0</td>
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<tbody>
<tr>
<td>GDP deflator¹</td>
<td>9.9</td>
<td>20.4</td>
<td>14.3</td>
<td>7.3</td>
<td>7.5</td>
<td>3.8</td>
<td>4.7</td>
<td>5.4</td>
</tr>
<tr>
<td>Bank Indonesia interest key rate (%)</td>
<td>..</td>
<td>..</td>
<td>3.9</td>
<td>6.5</td>
<td>6.6</td>
<td>5.8</td>
<td>6.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Domestic credit</td>
<td>..</td>
<td>..</td>
<td>28.7</td>
<td>17.5</td>
<td>24.4</td>
<td>24.2</td>
<td>22.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Nominal exchange rate (average, IDR/USD)⁴</td>
<td>2,249</td>
<td>8,422</td>
<td>9,705</td>
<td>9,090</td>
<td>8,770</td>
<td>9,387</td>
<td>10,461</td>
<td>11,865</td>
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</thead>
<tbody>
<tr>
<td>Consumer price Index (eop)</td>
<td>9.0</td>
<td>9.4</td>
<td>17.1</td>
<td>7.0</td>
<td>3.8</td>
<td>3.7</td>
<td>8.1</td>
<td>8.4</td>
</tr>
<tr>
<td>Consumer price Index (average)</td>
<td>9.4</td>
<td>3.7</td>
<td>10.5</td>
<td>5.1</td>
<td>5.3</td>
<td>4.0</td>
<td>6.4</td>
<td>6.4</td>
</tr>
<tr>
<td>Indonesia crude oil price (USD per barrel, eop)⁵</td>
<td>17</td>
<td>28</td>
<td>53</td>
<td>79</td>
<td>112</td>
<td>113</td>
<td>107</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: ¹ BPS and World Bank staff calculations, using revised and 2010 rebased figures. ² MoF and World Bank staff calculations (for 1995 is FY 1995/1996, for 2000 covers 9 months), ³ Bank Indonesia, ⁴ IMF, ⁵ CEIC.
## Appendix Table 4: Indonesia’s development indicators at a glance

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</tr>
</thead>
<tbody>
<tr>
<td>Population (million)</td>
<td>199</td>
<td>213</td>
<td>227</td>
<td>241</td>
<td>244</td>
<td>247</td>
<td>250</td>
<td>..</td>
</tr>
<tr>
<td>Population growth rate (%)</td>
<td>1.5</td>
<td>1.3</td>
<td>1.2</td>
<td>1.3</td>
<td>1.3</td>
<td>1.2</td>
<td>1.2</td>
<td>..</td>
</tr>
<tr>
<td>Urban population (%)</td>
<td>36</td>
<td>42</td>
<td>46</td>
<td>50</td>
<td>51</td>
<td>51</td>
<td>52</td>
<td>..</td>
</tr>
<tr>
<td>Dependency ratio (% of working-age population)</td>
<td>61</td>
<td>55</td>
<td>54</td>
<td>53</td>
<td>53</td>
<td>52</td>
<td>52</td>
<td>..</td>
</tr>
</tbody>
</table>

## Labor Force2

<table>
<thead>
<tr>
<th>Labor force, total (million)</th>
<th>84</th>
<th>98</th>
<th>106</th>
<th>117</th>
<th>117</th>
<th>120</th>
<th>120</th>
<th>126</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>54</td>
<td>60</td>
<td>68</td>
<td>72</td>
<td>73</td>
<td>75</td>
<td>75</td>
<td>77</td>
</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>38</td>
<td>45</td>
<td>44</td>
<td>44</td>
<td>45</td>
<td>45</td>
<td>49</td>
</tr>
</tbody>
</table>

## Poverty and Income Distribution3

| Median household consumption (IDR 000 per month) | .. | 104 | 211 | 374 | 421 | 446 | 487 | 548 |
| National poverty line (IDR 000 per month) | .. | .. | 73 | 129 | 212 | 234 | 249 | 272 |
| Population below national poverty line (million) | .. | .. | 38 | 35 | 31 | 30 | 29 | 28 |
| Poverty (% of population below national poverty line) | .. | 19.1 | 16.0 | 13.3 | 12.5 | 12.0 | 11.4 | 11.3 |
| Urban (% of population below urban poverty line) | .. | 14.6 | 11.7 | 9.9 | 9.2 | 8.8 | 8.4 | 8.3 |
| Rural (% of population below rural poverty line) | .. | 22.4 | 20.0 | 16.6 | 15.7 | 15.1 | 14.3 | 14.2 |
| Male-headed households | .. | 15.5 | 13.3 | 11.0 | 10.2 | 9.5 | 9.2 | 11.2 |
| Female-headed households | .. | 12.6 | 12.8 | 9.5 | 9.7 | 8.8 | 8.6 | 11.9 |
| Gini index | .. | .. | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| Percentage share of consumption: lowest 20% | .. | .. | 9.6 | 8.7 | 7.9 | 7.4 | 7.5 | 7.5 |
| Percentage share of consumption: highest 20% | .. | .. | 38.6 | 41.4 | 40.6 | 46.5 | 46.7 | 47.3 |
| Public expenditure on social security & welfare (% of GDP)4 | .. | .. | .. | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |

## Health and Nutrition1

| Physicians (per 1,000 people) | 0.16 | 0.16 | 0.13 | 0.29 | .. | .. | 0.20 | .. |
| Under five mortality rate (per 1000 children under 5 years) | 67 | 52 | 42 | 33 | 32 | 31 | 29 | .. |
| Neonatal mortality rate (per 1000 live births) | 26 | 22 | 19 | 16 | 15 | 15 | 14 | .. |
| Infant mortality (per 1000 live births) | 51 | 41 | 34 | 27 | 26 | 25 | 25 | .. |
| Maternal mortality ratio (estimate, per 100,000 live births) | 420 | 340 | 270 | 210 | .. | .. | 190 | .. |
| Total health expenditure (% of GDP) | 1.8 | 2.0 | 2.8 | 2.9 | 2.9 | 3.0 | .. | .. |
| Public health expenditure (% of GDP) | 0.7 | 0.7 | 0.9 | 1.1 | 1.1 | 1.2 | .. | .. |

## Education3

| Primary net enrollment rate (%) | .. | .. | 92 | 92 | 92 | 92 | 93 | 93 |
| Secondary net enrollment rate (%) | .. | .. | 48 | 48 | 49 | 49 | 50 | 48 |
| Tertiary net enrollment rate (%) | .. | .. | 9 | 16 | 14 | 15 | 16 | 18 |
| Adult literacy rate (%) | .. | .. | .. | .. | .. | .. | .. | .. |

## Water and Sanitation1

| Access to an improved water source (% of population) | 74 | 78 | 81 | 84 | 84 | 85 | .. | .. |
| Urban (% of urban population) | 91 | 91 | 92 | 93 | 93 | 93 | .. | .. |
| Rural (% of rural population) | 65 | 68 | 71 | 75 | 76 | 76 | .. | .. |
| Access to improved sanitation facilities (% of population) | 38 | 44 | 53 | 57 | 59 | 59 | .. | .. |
| Urban (% of urban population) | 60 | 64 | 70 | 70 | 73 | 71 | .. | .. |
| Rural (% of rural population) | 26 | 30 | 38 | 44 | 44 | 46 | .. | .. |

## Others1

| Disaster risk reduction progress score (1-5 scale; 5=best) | .. | .. | .. | .. | .. | .. | 3.3 | .. |
| Proportion of seats held by women in national parliament (%) | .. | .. | .. | .. | .. | .. | 8 | 11 |

getSource: 1 World Development Indicators; 2 BPS (Sakernas); 3 BPS (Susenas) and World Bank; 4 MoF, Bappenas and World Bank staff calculation, only includes spending on Raskin, Jamkesmas, BLT, BSM, PKH and actuals; 5 MoF; 6 Inter-Parliamentary Union
High expectations