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INDONESIA ECONOMIC QUARTERLY

Pressures mounting

March 2013

THE WORLD BANK

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Preface

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

The *IEQ* is a product of the World Bank's Jakarta office. The report is compiled by the Macro and Fiscal Policy Cluster, Poverty Reduction and Economic Management (PREM) Network, under the guidance of Sector Manager and Lead Economist, Jim Brumby, Economic Advisor and Lead Economist, Ndiame Diop, and Senior Economist, Ashley Taylor. The core project team, with responsibility for Part A (economic update), editing and production, comprises Arsianti, Magda Adriani, Fitria Fitrani, Brendan Coates, Faya Hayati, Ahya Ihsan, Shakira Jones, Alex Sienaert and Ashley Taylor, with invaluable administrative support provided by Titi Ananto and Sylvia Njotomihardjo. Dissemination is organized by Dini Sari Djalal, Farhana Asnap, Indra Irnawan, Jerry Kurniawan, Nugroho, Marcellinus Winata and Randy Salim.

This edition of the *IEQ* also includes contributions from Ahya Ihsan (Section B.1 on the 2012 Budget outturn), Fitria Fitrani and Brendan Coates (Section B.2 on trade), Taimur Samad, Renata Simatupang and Chandan Deuskar (Section C.1 on urbanization) and Bill Wallace and Ahya Ihsan (Section C.2. on infrastructure investment, with support from Jonathan Sariaatmadja and Yus Pakpahan). Key input was also received from Kiyoshi Taniguchi (box on beef prices), Djauhari Sitorus, Neni Lestari and The Fei Ming (banking sector, credit and corporate sector update), and Cindy Paladines and Matthew Wai-Poi (poverty update). Bert Hoffman, Yue Man Lee, Sjamsu Raharda, Theo Thomas and Soekarno Wirokartono provided in-depth comments.

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Executive summary: Pressures mounting

Indonesia's economic growth rate has remained steady but pressures are mounting

Indonesia's economy continued to grow at a steady pace in the final quarter of 2012, taking full-year GDP growth to 6.2 percent. This was only a modest reduction from the 6.5 percent growth recorded in 2011—a resilient performance considering the weak global environment and unsettled financial market conditions which prevailed for much of the year. Looking ahead, Indonesia should be able to maintain a solid pace of growth, but there is no room for complacency, as a number of pressures are mounting which could move the economy off this trajectory. Global economic uncertainties remain elevated, Indonesia's investment growth has moderated and, as highlighted in the December 2012 *IEQ*, the quality of domestic policies is increasingly in focus, particularly in the run-up to the 2014 elections. Even if growth of 6.0 to 6.5 percent is maintained, there is a risk that, without more progress on policy reform and implementation, the opportunity could be missed to boost growth at a time when the economy is benefiting from a growing labor force and the agglomeration effects of urbanization. Future appointments to key economic policy roles, following the nomination of the Minister of Finance as the next Governor of Bank Indonesia (BI), will also frame the macroeconomic policy environment going forward.

Global economic indicators have improved slightly, commodity prices have lifted off their recent lows and financial markets have been generally well-supported

The final quarter of 2012 remained challenging for many of Indonesia's major trading partners; growth in the US and Japan was flat and the Euro Area recession deepened, though growth in China firmed. Moving into 2013, global growth remains subdued but international economic conditions have turned somewhat more supportive for growth in Indonesia. Global industrial production is increasing at a modest pace, and global trade is expanding again, with broad-based increases for developing countries' exports. Commodity prices have also generally posted modest gains since December, including those of some of Indonesia's key export products like copper, rubber and palm oil. The improved global economic data, and diminishing fears over the risks of extreme adverse scenarios in the Euro Area, US and China, coupled with accommodative monetary policy in most high income economies, have been broadly supportive of financial markets. Global equity markets rallied in the final two months of 2012 and have generally held these gains, with some developed country equity indices at or near record highs in nominal terms. Emerging market sovereign credit spreads have widened so far in 2013 but still remain close to their tightest levels since the global financial crisis.

2013 should see global growth increase modestly, but uncertainty remains elevated

The World Bank expects global growth to increase only slightly in 2013, rising to 2.4 percent from 2.3 percent in 2012, before moving up to 3.1 percent in 2014. Even this modest growth is subject to risks, with significant policy uncertainty still clouding the outlook. While the US skirted the "fiscal cliff" at the start of the year, the extent of fiscal consolidation is not yet clear and will depend on how long-lived the sequester spending cuts prove to be. Economic conditions in the Euro Area remain extremely challenging. The pick-up recorded in China's growth rate has been a major bright spot amongst the world's biggest economies but has come with a rapid expansion in credit and property values.

GDP growth was solid in Q4 but investment cooled and net exports remained a drag on growth

Economic growth in Indonesia in the final quarter of 2012 continued the recent pattern of remaining steady despite challenging external conditions. GDP expanded by 6.1 percent year-on-year (yoy), down just slightly from 6.2 percent in Q3, and accelerating in

sequential terms to a seasonally adjusted 1.7 percent quarter-on-quarter (qoq) compared with 1.3 percent in Q3. Private consumption, accounting for 55 percent of GDP, made the biggest contribution to growth. Government consumption, however, contracted, reflecting in part spending restraints imposed in mid-2012. Central government capital spending continues to grow strongly, with the provisional 2012 Budget outturn showing a 19 percent annual increase in nominal terms (though the disbursement rate relative to the significantly increased revised Budget allocation was only 80 percent). However, public investment spending accounts for only a small share of total fixed investment, the growth of which has slowed markedly, to 7.3 percent yoy in Q4, down from the 12.5 percent yoy peak recorded in Q2 2012. The major recent drag on growth has been net exports, which reduced growth in 2012 by 1.5 percentage points, reflecting weak exports and strong import growth.

The current account saw a significant reversal in 2012, moving from a small surplus in 2011 into a 2.7 percent of GDP deficit, but financial inflows, notably of FDI, have also been strong

The current account deficit widened to 3.6 percent of GDP in Q4 2012, taking the deficit for 2012 as a whole to USD 24.2 billion, or 2.7 percent of GDP (compared with a 0.2 percent surplus in 2011). Through mid-2012 most of the decline came from a rapidly shrinking non-oil and gas trade surplus, followed in recent months by a widening of the oil deficit, which reached a record USD 23 billion for 2012. The overall balance of payments remained in surplus in Q4, on the back of strong net capital inflows, with inbound FDI as measured by BI rising 3 percent over 2011 to USD 20 billion. However, the basic balance (current account balance plus net direct investment) remains negative, implying a continued reliance on potentially volatile portfolio investment. In addition, external debt has risen quite significantly over the past year, and while debt sustainability metrics remain strong, gross external financing needs have grown as a result. There is therefore a need to continue increasing FDI, and supporting portfolio inflows, to meet financing needs.

The aggregate fiscal position remains sound but energy subsidy spending continues to impose a high opportunity cost

The provisional official 2012 budget deficit was IDR 146 trillion (1.8 percent of GDP). This was narrower than the revised Budget target of 2.2 percent of GDP, reflecting lower than expected capital and material expenditures, outweighing higher energy subsidy spending, which reached 3.7 percent of GDP (up from 3.4 percent in 2011), or almost one third of total central government spending. In 2013, the Government is set to maintain its prudent fiscal stance, targeting a budget deficit of 1.7 percent of GDP. The challenge remains to improve improve the allocation and efficiency of spending which, despite the electricity tariff adjustment, will continue to be weakened by energy subsidies. Fuel subsidies, in particular, have also contributed to the above-mentioned recent pressure on the external trade accounts, adding to their opportunity costs, poor targeting and distortionary impacts on energy usage. The Government has recently indicated that it plans soon to announce reforms to the fuel subsidy system.

Inflation pressures, although contained over 2012, picked up in February

Annual average CPI inflation in 2012, at 4.3 percent yoy, was the lowest in 12 years. Headline CPI has since risen sharply, climbing 1 percentage point since December 2012 to 5.3 percent yoy in February 2013, on the back of high food price inflation (impacted by new trade measures and severe floods in Greater Jakarta) and electricity tariff increases. Core inflation, however, remains stable at 4.3 percent. Going forward, inflation is likely to trend closer to the top of Bank Indonesia's 4.5-5.5 percent target band, as domestic demand and credit growth are expected to remain relatively high, and cost-push pressures are projected to increase due to administered price rises, higher minimum wages, and pass-through from the weaker Rupiah. Price pressures in the property market, pockets of which have seen strong price growth, and the pace of credit growth (which has cooled but remains high) will also require careful monitoring.

Table 1: Under the baseline scenario Indonesia's growth is projected at 6.2 percent in 2013

		2011	2012	2013	2014
Gross domestic product	(Annual percent change)	6.5	6.2	6.2	6.5
Consumer price index*	(Annual percent change)	5.4	4.3	5.5	5.2
Budget balance**	(Percent of GDP)	-1.2	-1.8	-1.7	-1.4
Major trading partner growth	(Annual percent change)	3.6	3.4	3.7	4.0

Note: *Annual average. **Government figures for Budget deficit: 2012 is preliminary outturn, 2013 is approved Budget and 2014 is from the 2013 Draft Budget Financial Note
Source: Ministry of Finance; BPS; Consensus Forecasts Inc.; World Bank staff calculations

The baseline outlook is for Indonesia's GDP to continue growing at close to its recent pace

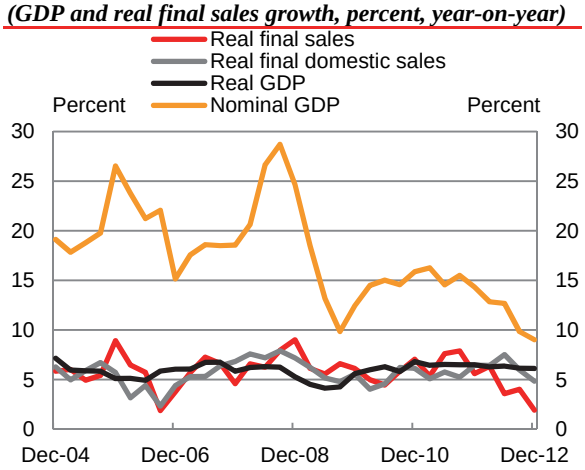
The World Bank projects near-term GDP growth to remain close to its recent pace, at 6.2 percent in 2013 and 6.5 percent in 2014 (Table 1). Private consumption is expected to continue to underpin growth, potentially boosted by election-related spending as the 2014 elections draw nearer. Although still solid in the baseline outlook, the future path of investment spending is the key uncertainty in the World Bank's growth projections, as discussed below, with the recent moderation in investment growth in year-on-year terms contributing to a slight 0.1 percent reduction in projected GDP growth for 2013 from that in the December 2012 *IEQ*. Net exports will likely still subtract from growth in 2013, as exports should stage a slow recovery but imports are also expected to continue to grow robustly. Moving into 2014, a further improvement in export performance, as Indonesia's major trading partners' growth climbs further, is expected to help lift growth to 6.5 percent.

However, some signs of strain in the recent data suggest there is no room for complacency as to the growth outlook…

While GDP growth is expected to remain steady, risks to the outlook remain skewed to the downside. Real output growth has been resilient but decreased momentum is discernible in nominal output growth, and in terms of measured real final sales, i.e. overall GDP excluding inventory accumulation and the statistical discrepancy (Figure 1). Nominal GDP declined in Q4 2012 to 9.3 percent yoy, the slowest pace since 2004. Real final sales growth has trended lower since mid-2011, due primarily to the drag from net exports, but domestic sales growth also fell short of overall GDP growth in Q4 2012. These relative dynamics should be interpreted cautiously due to measurement difficulties in the national accounts data, but they are at least suggestive of demand growth having softened somewhat, with some inventory accumulation so far shielding output growth.

Figure 1: Real GDP growth has stayed steady but nominal GDP and real final sales growth have slowed

(GDP and real final sales growth, percent, year-on-year)



Note: Real final (domestic) sales = consumption + fixed investment + government consumption + net exports (- net exports)
Source: BPS; World Bank staff calculations

…with the potential for further moderation in investment growth of particular focus

The key domestic risk to growth concerns the investment outlook. Private investment, which accounts for the bulk of fixed capital formation, is expected to continue growing strongly through 2014, but reduced capital goods imports suggest that the recent moderation in investment growth may extend, particularly if a number of risks to the outlook are realized. First, the weaker commodity market conditions which have been in place since mid-2011 may continue to impact aggregate investment spending with a lag, particularly in capital-intensive resource sectors where investment is lumpy. Second, investment has been fueled by the growth of Indonesia's domestic consumer base, and while this is expected to continue, there are risks that higher inflation could erode real purchasing power growth. Both consumer and investment borrowing costs would be affected should BI tighten monetary policy, which is currently accommodative. Finally, investment is likely to face some headwinds from ongoing, and possibly further, regulatory uncertainties and political noise as the 2014 elections approach, while Indonesia faces stiff regional competition for export-oriented investment. Should investment indeed slow, the growth impact would be material. As an indicative example, a halving of investment growth from its 2012 level, to 5 percent in 2013, would reduce real GDP growth by approximately 1 percentage point.

Poverty continues to decline but vulnerability remains high and a faster rate of poverty reduction is needed to meet the Government's targets

The official poverty rate has continued to decline, falling to 11.7 percent in September 2012, down from 12.5 percent in 2011. Vulnerability, however, remains high, with nearly 40 percent of the population at consumption levels below 1.5 times the national poverty line. More rapid progress will also be required for the Government to meet its target of reducing officially-defined poverty to 8-10 percent by 2014. The above-mentioned fall in nominal GDP growth, coupled with the weaker Rupiah, has also cut gains as measured in

current US dollars. According to BPS figures, GDP per capita in 2012 was USD 3,563, up only 1.8 percent on USD 3,498 in 2011 when the growth rate had reached 17.5 percent.

New data on Indonesia's trade in value-added terms shed light on trade dynamics, which have recently weighed on growth

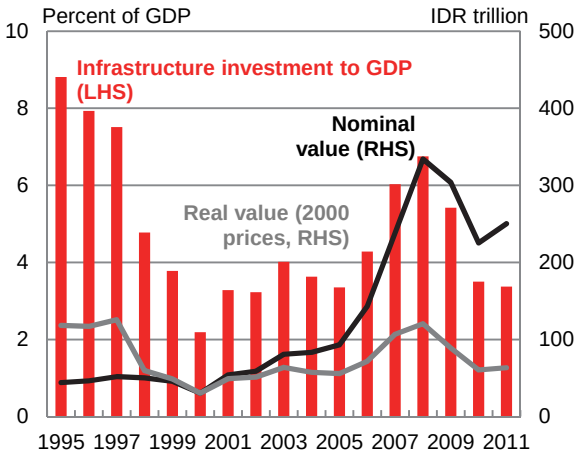
The relatively weak performance of exports, which declined by 6 percent in US Dollar terms in 2012 on the back of falling commodity prices, has put the spotlight on Indonesia's trade patterns. New data from the OECD and WTO on trade in value-added terms—i.e. the value of the economy's goods and services embodied in its exports, after accounting for the use of imported intermediate goods and services inputs—provide a valuable fresh perspective on this. Measuring Indonesia's trade in value-added terms shows that while the bulk of overall exports embody domestic value-added due to the high share of commodities, a significant share of manufactured exports consists of imported value-added. About a third of imported intermediate goods are in fact re-exported, highlighting the tight link between import availability and the performance of manufactured exports. In addition, services value-added in Indonesian exports is particularly low. This could reflect limited development of domestic ancillary services for supporting exports. Encouraging the development of these services would likely help overall export performance.

Infrastructure investment as a share of total output remains below its pre-Asian financial crisis levels and needs to increase to support growth and poverty reduction…

Better infrastructure is also vital if Indonesia is to improve its export performance and unlock its economic potential. Yet infrastructure investment has lagged economic development, and there are concerns that unless infrastructure catches up, bottlenecks and high transportation and logistics costs will reduce the sustainable growth rate. New data compiled by the World Bank provides estimates of the trend in infrastructure investment from 1994 to 2011 in the transport, electricity, irrigation, water and sanitation, and telecoms sectors. Excluding the sharp rise in spending in 2007 to 2009 associated with the 10,000 MW electricity investment program, infrastructure investment as a share of GDP has remained around 3 percent of GDP, compared with pre-Asian crisis levels of around 7 percent (Figure 2). Private infrastructure investment, in particular, has fallen, while decentralization has led to sub-national governments accounting for a rising share of the total, particularly focused on local roads. These initial estimates show the scale of the challenge to lift infrastructure investment. Equally important, however, is improving the quality of this investment and ensuring appropriate spending on operations and maintenance.

Figure 2: Infrastructure investment in real terms and as a share of GDP remains below pre-Asian crisis levels

(infrastructure investment as share of GDP, percent; nominal and real infrastructure investment, IDR trillion)



Note: Real value calculated using investment GDP deflator
Source: Infrastructure investment data as detailed in Box 5 and World Bank staff calculations

…and to help ensure that rapid urbanization remains a positive force

One reason why more infrastructure investment is imperative is that Indonesia continues to urbanize rapidly, having become a majority urban country in 2011, according to UN figures. The rise of Indonesia's cities is a formidable economic force, underpinning the increases in non-agricultural employment and new household formation which are driving domestic demand growth and lifting living standards. On the supply side, agglomeration economies offer the opportunity to boost productivity growth. However, not all of Indonesia's agglomeration areas are performing well, with large and mid-size agglomerations in particular lagging behind smaller urban centers and the "mega-cities". To unlock agglomeration benefits, more infrastructure investment is critical, since citizens' access to basic services lags that in regional peers. Additional policy challenges include housing provision and managing urban sprawl, which requires improved coordination amongst national and local governments, the community and private sector.

A. ECONOMIC AND FISCAL UPDATE

1. Global economic conditions have improved modestly

The final quarter of 2012 remained challenging for many of Indonesia's major trading partners

The final quarter of 2012 remained challenging for many of Indonesia's major trading partners. Moving into 2013, global growth remains subdued but international economic conditions have turned somewhat more supportive for growth in Indonesia. Economic growth in the US and Japan was flat in Q4 (at 0.1 percent and 0.0 percent respectively, at a seasonally-adjusted annualized pace). The Euro Area recession deepened, with GDP falling by 0.6 percent quarter-on-quarter. Amongst the world's biggest economies, China was the main bright spot in Q4, with GDP growth accelerating to 2 percent quarter-on-quarter.

Global economic conditions have improved modestly at the start of 2013…

While global economic conditions at the end of 2012 clearly remained weak, some improvement in key indicators became visible in the final months of the year, and this has extended into 2013. Global industrial production stopped contracting in October and edged higher at a 0.1 percent seasonally-adjusted annualized pace over the fourth quarter. Manufactured output growth has continued into Q1 2013, led by further increases in the US and some stabilization in Euro Area manufacturing after a long period of contraction. After falling for much of 2012, global trade volumes are also expanding again.

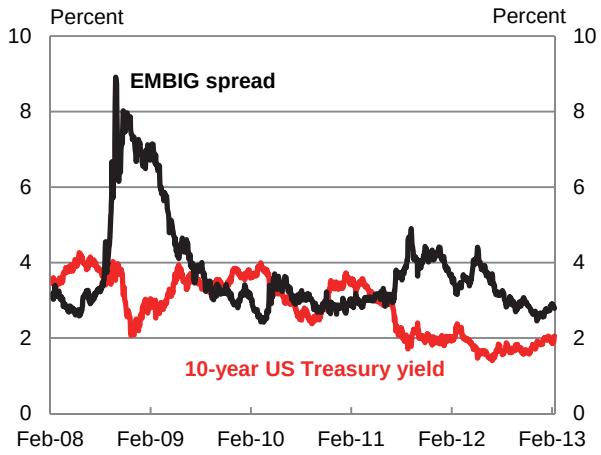
…but the pace of progress remains slow and uneven

Looking ahead, a mixed global picture is presented by modestly improving economic indicators, but ongoing significant headwinds to growth in many high income countries and policy uncertainties. The improvement in the global economy remains slow and uneven, and considerable uncertainty remains over its future trajectory. In the US, the economy has recently gained more traction, helped by a recovery in the housing market, but there is uncertainty as to how much of a drag will be imposed by fiscal consolidation. This will depend on how long-lasting the budget authorization cuts that came into effect in early-March prove to be. In the Euro Area, economic conditions remain challenging amidst ongoing political and policy uncertainties. In China, the acceleration in the economy has come with rapid credit growth.

International financial asset and commodity prices have gained

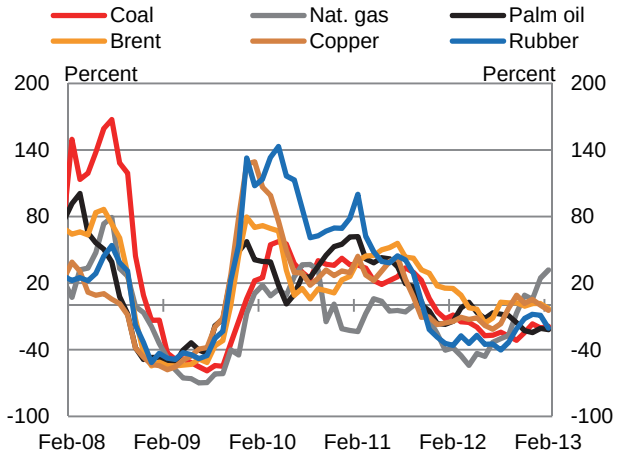
Improving economic data, diminishing fears over the risks of extreme adverse scenarios in the Euro Area, US and China, coupled with accommodative monetary policy in most high income economies, have been broadly supportive of financial markets. Developed and emerging market equities both rallied in the final 2 months of 2012 and have generally held these gains in local currency terms, taking some indices to near-record highs in nominal terms. Emerging market sovereign credit spreads have widened from their lows at the start of the year, but remain well below their 2011-2012 average (Figure 3). The prices of some of Indonesia's key commodity exports have posted modest gains since their recent lows in the second half of 2012, though most remain significantly below their year-ago levels (Figure 4).

Figure 3: US Treasury yields remain close to historic lows and emerging market sovereign credit spreads are tight…
(US 10 year Treasury note yield and EMBIG spread, percent)



Source: JP Morgan

Figure 4: …while the prices of some of Indonesia's key commodity exports show signs of stabilization and recovery
(year-on-year change in US dollar price, percent)



Source: World Bank

2. Indonesia's economy continued to grow steadily through the end of 2012

The economy has grown steadily but shows some signs of moderation, leading to a slight downward revision in the World Bank projection for 2013 GDP growth, to 6.2 percent

Indonesia's economy maintained a steady pace of growth through the end of 2012, supported by private consumption and investment spending. A rise in the statistical discrepancy between GDP as measured on the production and expenditure sides, and inventories, complicates analysis, but may indicate some softening in real demand growth. Nominal GDP growth has also decelerated and investment growth has moderated. Despite the fact that the drag from net exports is expected to diminish through 2013, these factors contribute to the World Bank lowering its projection for GDP growth in 2013 to 6.2 percent, a notch down from the 6.3 projection in the December 2012 *IEQ*.

Real GDP growth in the fourth quarter of 2012 moderated only slightly from the third quarter…

The Indonesian economy has continued to grow steadily, despite the drag imposed by weak external demand. GDP rose by 6.1 percent year-on-year in the fourth quarter of 2012, marking the ninth consecutive quarter of above 6 percent growth. The Q4 result was slightly lower than the 6.2 percent year-on-year growth seen in the third quarter, while on a seasonally-adjusted (sa) quarter-on-quarter (qoq) basis the economy grew by 1.7 percent, up from 1.3 percent in the third quarter (Figure 5). For 2012 as a whole, real GDP grew by 6.2 percent, down modestly from 6.5 percent in 2011.

…but nominal GDP growth continued to slow significantly

While real GDP remained resilient in the fourth quarter of 2012, nominal GDP growth slowed significantly, to 9.0 percent year-on-year. This was the slowest rate in over 8 years, and extended the decline of nominal GDP growth from its recent peak of 16.3 percent year-on-year in Q1 2011. The relative weakness in nominal growth is due to a sharp reduction in the growth of the GDP deflator, the broadest measure of prices across the economy. While the extent of this disinflation is surprising, given the strong pace of output growth, the downward trend has been driven in part by the sharp decline in export prices which occurred over 2012, on the back of falls in the prices of Indonesia's key commodities. The mining and quarrying sector in fact experienced outright deflation in Q4 2012, with the price of its output dropping 2.2 percent year-on-year, consistent with falls in global commodity prices.

On the production side growth was broadly flat in year-on-year terms, except in the agricultural sector and the oil and gas extraction sub-sector

On the production side, agriculture, livestock, forestry and fisheries was the only sector to register a contraction in activity in sequential (qoq sa) terms, driven by a fall for non-food crops (Figure 6). This sector tends to exhibit volatile growth and accounts for a small share of GDP (12.3 percent in Q4). Mining and quarrying exhibited a sluggish performance, due largely to the continued weakness of oil and gas extraction, which declined for the sixth consecutive quarter, down 4.6 per cent year-on-year, while non-oil and gas mining increased by 4.4 percent year-on-year. The manufacturing sector grew by a solid 6.2 percent year-on-year, compared to 5.9 percent in Q3, though manufacturing of oil and gas continued to fall (down by 3.5 percent year-on-year). Construction was also a

solid performer, up 7.8 percent year-on-year, while the services sectors also continued to perform robustly, growing by 7.6 percent year-on-year in Q4.

Robust private consumption continues to underpin demand, while government consumption was weak

On the expenditure side, real domestic demand grew steadily in Q4, supported by buoyant private consumption which accounts for over half of GDP. Private consumption increased by 5.4 percent year-on-year in Q4, and by 1.1 percent on the quarter (sa), reflecting strength in both food and non-food consumption. For 2012 as a whole, private consumption grew by 5.3 per cent, the fastest pace in 4 years. In contrast, government consumption continued to decline in Q4, down 3.3 percent year-on-year. This weakness was largely driven by a fall in government material consumption, which fell by 5.3 percent year-on-year. This result is partly due to the impact of spending restrictions which were imposed in mid-2012. Reflecting this weakness, government consumption grew by only 1.2 percent in 2012, down from 3.2 percent in 2011.

Investment growth, though still rapid, cooled somewhat…

Real investment increased by 7.3 percent year-on-year, a rapid pace but well down from 9.8 percent in the third quarter. A driver of this moderation has been a significant slowing in foreign machinery and equipment investment, which increased by 4.3 percent year-on-year in Q4, sharply down from the 23.8 percent growth recorded in Q2 2012. However, building investment, which accounts for 85 percent of total nominal fixed investment, continued to perform strongly, increasing by 7.8 percent year-on-year. Despite the recent moderation, investment grew by 9.8 percent for 2012 as a whole, up from 8.8 percent in 2011.

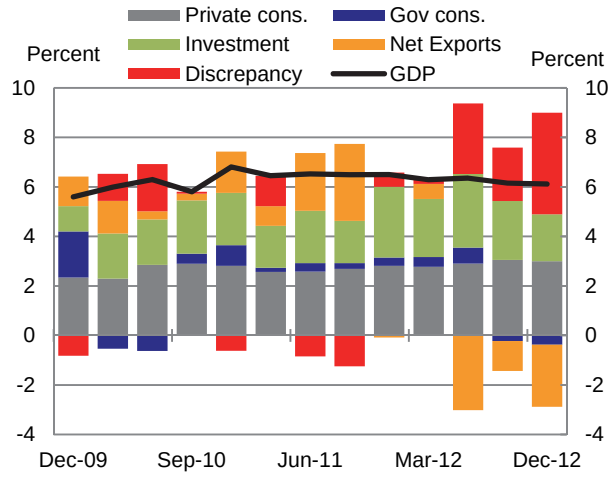
Net exports were a major drag on growth…

Net exports were a drag on growth in Q4, subtracting around 2.2 percentage points from seasonally-adjusted quarter-on-quarter growth (Figure 5). While there was some improvement in export volumes in the quarter, up 2.6 percent in seasonally-adjusted quarter-on-quarter terms, this was more than offset by a large increase in imports of 9.5 percent. The strength in imports partly reflects a rebound from a very weak Q3 result (down 8.5 percent seasonally-adjusted quarter-on-quarter). For 2012 as a whole, net exports subtracted 1.5 percentage points from growth, the largest subtraction from annual growth since 2004.

...while increasing inventories and a large statistical discrepancy may lead to some pay-back for growth in 2013

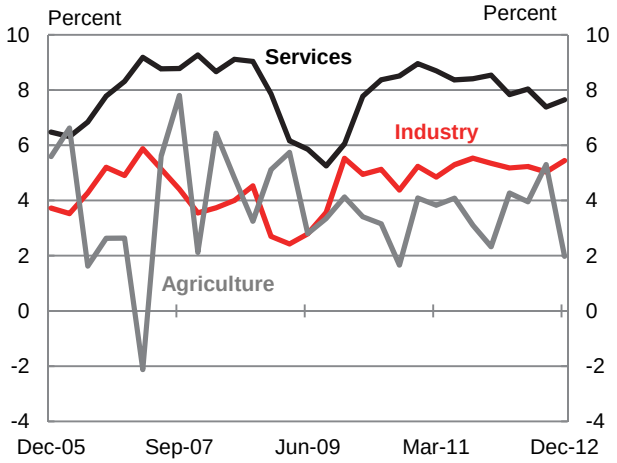
The statistical discrepancy and inventories together added around 2.8 percentage points to seasonally-adjusted quarter-on-quarter growth in the fourth quarter and around 2.3 percentage points to growth in 2012. While inventories fell in Q4, they did so by far less than is usual for the year-end, consequently adding to sequential growth when adjusted for seasonality. This extends the pattern of inventory accumulation over 2012 highlighted in the December 2012 *IEQ*. Coupled with the large, positive statistical discrepancy between GDP as measured on the production and expenditure sides, a sizable gap has opened between GDP and measured real final sales growth (i.e. the sum of measured private consumption, government consumption, fixed investment and net exports, see Figure 1 in the Executive Summary). Should some of this reflect demand growth falling short of production growth, de-stocking could be a drag on growth in coming quarters.

Figure 5: Private consumption and investment continue to be the key drivers of growth, offsetting net export weakness
(year-on-year real GDP growth, percent)



Source: BPS; World Bank staff calculations

Figure 6: Services and Industry performed robustly
(year-on-year Services, Industry and Agriculture GDP growth, percent)



Source: BPS; World Bank staff calculations

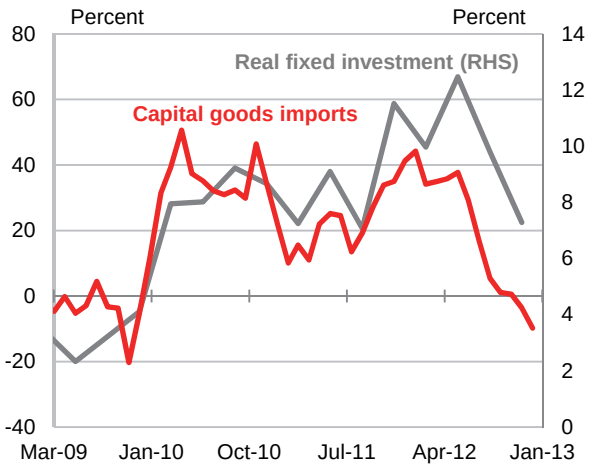
Most high frequency indicators remain firm, with some moderation on the retail side…

High frequency indicators are generally firm. On the production side, cement sales and industrial production have continued to improve in recent months, with cement sales up 20.6 percent year-on-year in February, consistent with the strong performance of building investment in Q4. On the consumption side, motorcycle sales, which fell during much of 2012, have stabilized, increasing in year-on-year terms for the first time in 10 months in December 2012. Vehicle sales in February were also up a strong 19.4 percent yoy. Other demand-side indicators show some evidence of moderation, with consumer sentiment still at high levels but slightly off the Q3 2012 highs as measured by Bank Indonesia, while retail sales growth fell to 7.1 percent yoy in January, down from 15.1 percent in December.

…and with the notable exception of softening capital goods spending

The key uncertainty for the near-term domestic demand growth outlook is the future path of investment. With a large proportion of machinery and equipment for investment purposes imported, capital imports are a good high frequency indicator of investment. This indicator suggests that there is likely to be a further moderation in machinery and equipment investment in coming months (Figure 7). Growth in capital imports has been declining since early 2012, with capital imports falling by 12.1 percent year-on-year in January 2013. This is consistent with the historical link between capital spending and commodity prices, as highlighted in the December 2012 *IEQ*, with the weakness in commodity prices and exports over 2012 now filtering with a lag into somewhat weaker investment growth.

Figure 7: Weak capital goods imports suggest further possible moderation in investment growth
(real fixed investment and 3-month moving average of capital goods imports in USD, percent year-on-year)



Source: BPS; World Bank staff calculations

GDP growth is forecast at 6.2 percent for 2013 and 6.5 percent for 2014…

The World Bank's projection for GDP growth in 2013 is 6.2 percent (Table 2), down slightly from 6.3 percent in the December 2012 *IEQ*. Private consumption is expected to remain the main driver of growth, potentially boosted by pre-election spending in the second half of the year. Investment will also continue to be a key source of growth but is expected to moderate somewhat from its rate of increase in 2012, as indicated by the slower pace of imported capital goods spending described above. Net exports will likely continue to subtract from growth in 2013, though to a lesser extent than in 2012. This is because while exports are expected to stage a slow recovery, imports are also expected to continue to grow robustly in line with solid growth in domestic demand. For 2014, growth is expected to pick up to 6.5 percent, supported by a further lift in exports.

Table 2: Under the baseline scenario GDP growth of 6.2 percent is projected for 2013, rising to 6.5 percent in 2014
(percentage change, unless otherwise indicated)

	Annual			Year to December quarter			Revision to Annual	
	2012	2013	2014	2012	2013	2014	2013	2014
1. Main economic indicators								
Total Consumption expenditure	4.8	5.0	5.8	3.9	5.9	5.1	-0.2	n/a
Private consumption expenditure	5.3	5.5	5.8	5.4	5.8	5.1	0.4	n/a
Government consumption	1.2	1.7	5.7	-3.3	6.6	5.3	-4.4	n/a
Gross fixed capital formation	9.8	8.0	9.6	7.3	8.8	10.0	-3.3	n/a
Exports of goods and services	2.0	5.8	11.3	0.5	8.7	12.9	2.0	n/a
Imports of goods and services	6.6	8.6	9.5	6.8	8.1	10.0	5.5	n/a
Gross Domestic Product	**6.2**	**6.2**	**6.5**	**6.1**	**6.2**	**6.7**	**-0.1**	n/a
Agriculture	4.0	2.8	3.2	2.0	4.5	3.2	-0.7	n/a
Industry	5.2	5.1	5.4	5.4	4.7	5.8	0.0	n/a
Services	7.7	8.0	8.1	7.6	7.9	8.2	-0.1	n/a
2. External indicators								
Balance of payments (USD bn)	0.2	2.0	4.3	n/a	n/a	n/a	-3.5	n/a
Current account balance (USD bn)	-24.2	-23.7	-22.4	n/a	n/a	n/a	-9.5	n/a
Trade balance (USD bn)	-2.4	0.3	4.6	n/a	n/a	n/a	-7.4	n/a
Financial account balance (USD bn)	24.9	25.7	26.7	n/a	n/a	n/a	6.0	n/a
3. Other economic measures								
Consumer price index	4.3	5.5	5.2	4.4	5.8	5.4	0.5	n/a
Poverty basket Index	6.5	6.1	6.8	5.4	6.9	7.0	0.4	n/a
GDP Deflator	4.6	4.9	5.9	2.7	6.9	5.5	-1.1	n/a
Nominal GDP	11.0	11.4	12.7	9.0	13.6	12.6	-1.3	n/a
4. Economic assumptions								
Exchange rate (IDR/USD)	9419	9600	9500	9630	9600	9500	100.0	n/a
Indonesian crude price (USD/bl)	113	110	105	108	110	105	5.0	n/a
Major trading partner growth	3.4	3.7	4.0	3.1	4.4	3.4	0.1	n/a

Note: Projected trade flows relate to the national accounts, which may overstate the true movement in trade volumes and understate the movement in prices due to differences in price series. Revisions are relative to projections in December 2012 *IEQ*
Source: MoF; BPS; BI; CEIC; World Bank projections

3. Current account deficit places focus on external financing needs and sources

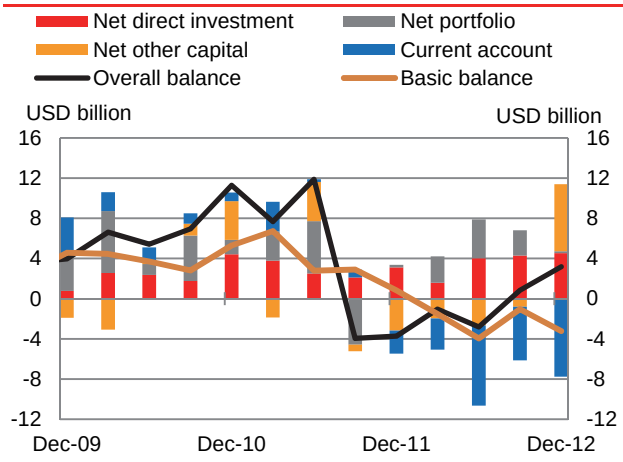
Indonesia recorded its first annual current account deficit in 15 years in 2012…

Indonesia's current account deficit widened in Q4 2012 to USD 7.8 billion, or 3.6 percent of GDP (Figure 8). This reflected the combination of ongoing subdued demand for exports and relatively weak commodity prices, and strong import demand, fueled by sustained domestic demand growth. For 2012 as a whole, the current account deficit stood at USD 24.2 billion (2.7 percent of GDP). This was the first full-year deficit in 15 years, reflecting the narrowing goods trade surplus which fell from USD 34.8 billion in 2011 to USD 8.4 billion in 2012. Through to mid-2012 the bulk of the decline came from a rapidly deteriorating surplus in the non-energy trade balance, followed in recent months by a widening of the oil and gas trade deficit.

…but the overall balance of payments returned to surplus in the second half of 2012

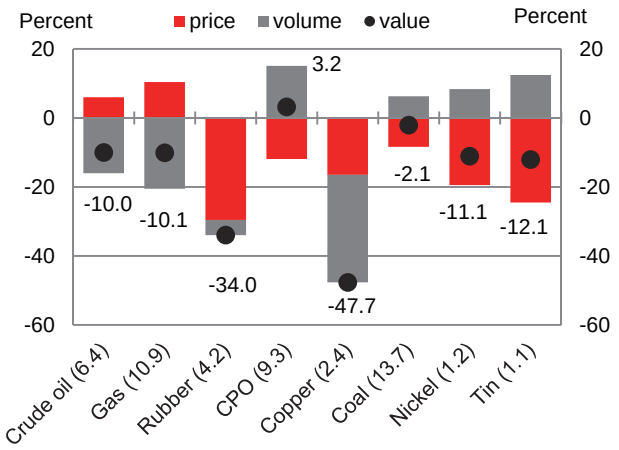
Despite the deficit on the current account, the overall balance of payments remained in surplus in Q4 2012, as in Q3, at USD 3.2 billion on the back of strong capital inflows. However, the basic balance (current account balance plus net direct investment) remains in deficit, with direct investment flows financing less than 60 per cent of the current account deficit in Q4, down from 80 per cent in Q3. As a result, Indonesia's ability to sustain strong FDI inflows and keep policies supportive of potentially volatile portfolio investment will be monitored closely by markets.

Figure 8: A wider current account deficit has kept the basic balance of payments in deficit…
(balance of payments flows, USD billion)



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

Figure 9: … as a combination of weak prices and export volumes weighed on most commodity exports
(contribution of price and volume changes to year-on-year growth in export values, percent)



Note: growth rates from January to November; x-axis label brackets denote export share, Jan-Nov 2012
Source: CEIC; World Bank staff calculations

The goods trade surplus narrowed further in Q4 on strong import demand coupled with weak exports

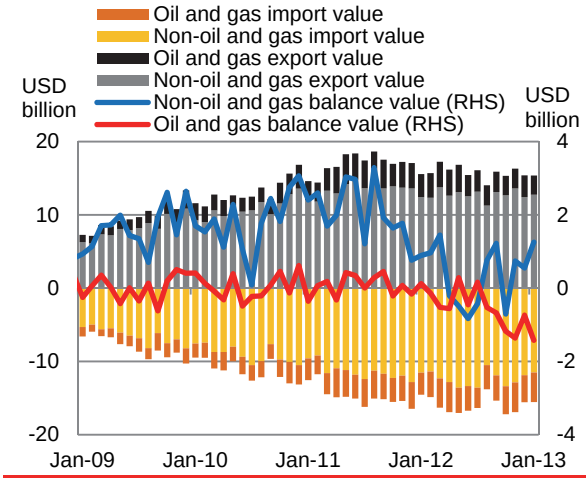
Turning to a more detailed view of recent trade dynamics, in the final quarter of 2012 the goods trade balance fell to USD 0.6 billion, its lowest level since at least 1993. Exports saw a very modest recovery to USD 46.7 billion (up from USD 45.6 billion in Q3), but this was more than offset by stronger imports of USD 46.1 billion (up from USD 42.4 billion in Q3). Strengthening goods trade volumes also led to a widening of the services trade deficit to USD 3.3 billion in Q4, reflecting demand for associated transport services. Overall exports of goods and services for 2012 were down 6.3 percent on 2011, while imports rose 8.3 percent, in nominal USD terms.

The oil and gas trade deficit has grown significantly

A negative development for the trade balance has been the emergence of a growing oil and gas trade deficit since mid-2012, which widened to USD 5.1 billion in 2012, from USD 0.7 billion in 2011 (Figure 10). This is the result of weakening domestic oil production and strong domestic oil demand amidst higher global oil prices. The result was a record USD 20.3 billion oil deficit for 2012, driven by an increase in the refined oil trade deficit from USD 1.1 billion in Q1 2012 to close to USD 7 billion in Q4 2012. The monthly oil and gas trade deficit for January widened to USD 1.4 billion. The oil and gas trade deficit will likely continue to pose a challenge in 2013 amidst strong domestic energy demand, especially if there is not further progress on fuel subsidy reform

Figure 10: A sizable oil and gas trade deficit has recently weighed on the external accounts

(exports, imports and trade balances, nominal USD billion)



Source: BPS; World Bank staff calculations

Capital inflows remain robust but FDI has room to grow further

Indonesia's financial account surplus rose in Q4 2012 to USD 11.4 billion, from USD 6 billion in Q3. The surplus was driven by continued strong net direct investment of USD 4.5 billion (from USD 4.3 billion in Q3). Inward direct investment rose by 3.2 percent in 2012 over 2011, as measured by Bank Indonesia, and by a larger 26 percent as measured by the Indonesian Investment Coordinating Board (BKPM), with the discrepancy due to methodological and reporting differences. Yet Indonesia's performance in attracting foreign investment remains limited compared to its peers. Indonesia received direct investment inflows equivalent to around just 2 percent of GDP over the period 2010-11, compared to around 4 percent in Malaysia and China (Figure 11), rising to 2.2 percent of GDP in 2012. These figures suggest scope for Indonesia to attract higher levels of FDI.

…and investor perceptions differ greatly across sectors

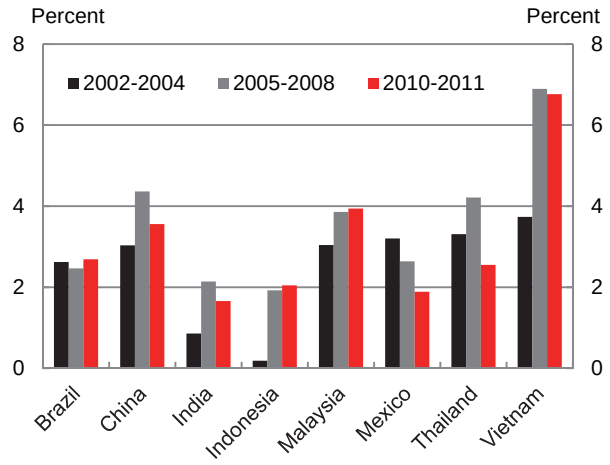
Indonesia rose to third place in 2012, behind China and India (from fifth in 2011) as a potential investment destination for Japanese manufacturing firms' overseas operations in a large recent survey conducted by the Japanese Bank for International Cooperation (JBIC).[1] The results point to the attractiveness of Indonesia's growing domestic market in encouraging FDI flows, with 84 percent of firms listing this as an important driver of their assessment, although survey respondents also highlighted rising wages (even before the large increases for 2013 were agreed) and infrastructure as challenges. In contrast, Indonesia's mining policy environment was ranked as the least attractive among 96 countries in a survey of mining executives by the Fraser Institute, down from 86th last year.

Portfolio inflows have returned in early 2013 but remain modest

Portfolio investment inflows have had a strong start to 2013. February saw the largest net inflows since July 2011 (Figure 12), directed into both Indonesian equities and government bonds. Cumulative portfolio inflows over 2012 totaled USD 6.1 billion, with net buying concentrated in local currency government bonds (SUN) (USD 5 billion) and equities (USD 1.9 billion). Cumulative net inflows in 2012 were higher than the USD 0.7 billion in net inflows recorded in 2011, but well down on USD 13.3 billion in 2010.

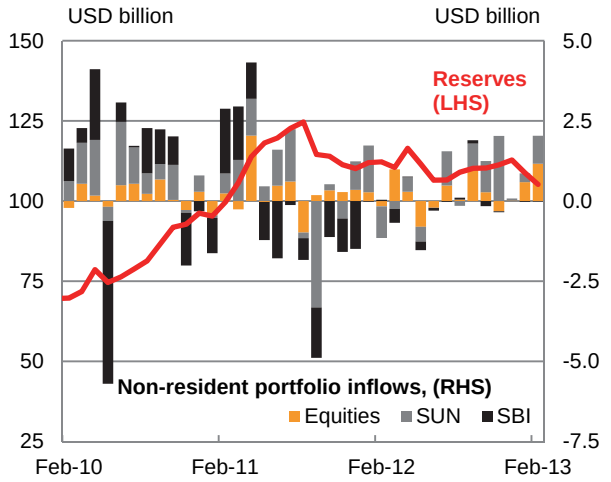
[1] Japanese firms with overseas business operations were surveyed from July to September 2012. Firms were asked to list the countries with the best medium term prospects (i.e. next three years) for firms' overseas operations.

Figure 11: Despite strong growth, FDI inflows into Indonesia remain modest compared to its peers
((inbound FDI as share of GDP, percent)



Source: CEIC; World Bank staff calculations

Figure 12: Reserves declined in January and February despite the return of portfolio investment inflows
((USD billion)



Source: CEIC; World Bank staff calculations

Indonesia's current account deficit to narrow modestly as a share of GDP in 2013, but external financing risks remain…

Looking ahead, the World Bank projects the current account deficit to stabilize in 2013 in USD terms at USD 23.7 billion, thus falling modestly as a share of GDP to 2.5 percent, before narrowing further in 2014. The improving global economic outlook is expected to drive stronger demand for Indonesia's exports, but this will likely be offset by stronger import demand, notably including energy imports. The overall balance of payments should remain in modest surplus over 2013 and 2014, on the back of sustained capital inflows, though these are subject to risks, as outlined below.

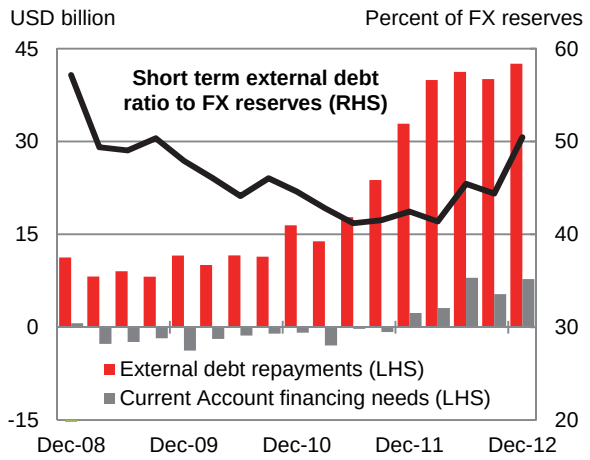
…and private external debt has increased…

Reported gross private external debt exposures continue to rise, having accelerated after the global financial crisis to be up by 70 percent in the past three years, with gross private external debt now exceeding public external debt for the first time. Official reserves remain more than sufficient to cover Indonesia's short term external financing needs, although the ratio of gross short term external debt to official reserves has risen from 40 percent to over 50 percent over the past year as growth in offshore borrowing has outpaced reserve accumulation (Figure 13). While manageable from a medium-term external debt sustainability perspective, the rise in external debt has resulted in Indonesia's gross external financial needs trending sharply higher since early 2011, with gross repayments totaling USD 43 billion in Q4 2012, up from USD 15 billion in Q1 2011.

…arguing for careful monitoring of private sector foreign currency exposure

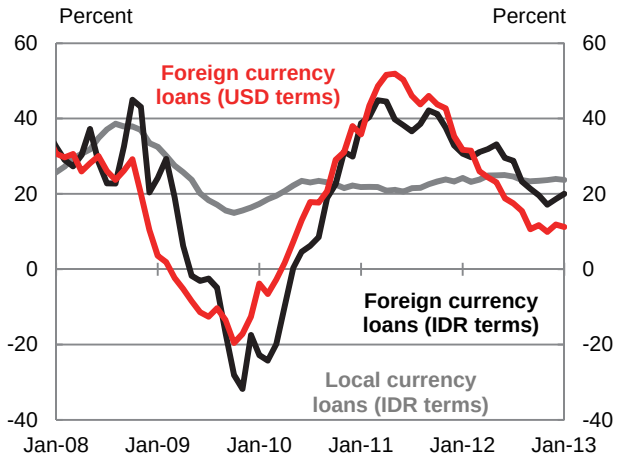
Given the rise in reported private external debt, policy-makers will need to remain wary of the exposure of some corporate balance sheets to any further weakening of the Rupiah. Some 87 percent of private external debt is denominated in US dollars and companies in the manufacturing, infrastructure and financial services sectors account for just under half of total private external debt, not all of which may enjoy natural foreign currency hedges (such as export earnings). Encouragingly with respect to managing overall private sector exchange rate exposure, the pace of foreign currency bank lending growth (which accounts for 16 percent of total bank lending and is another source of exchange rate exposure along with external debt), while still rapid, has decelerated to 20 percent in the year to January, from a near-term peak of 33.1 percent in May 2012 (Figure 14).

Figure 13: Gross external financing needs have trended higher
(USD billion per quarter, percent)



Source: CEIC; World Bank staff calculations

Figure 14: …although foreign currency lending has been decelerating, to below the pace of domestic lending
(percent)



Source: CEIC; World Bank staff calculations

4. Credit extension and asset price growth remain strong in early 2013

Indonesian equity prices have risen and bond prices have been well-supported, while the Rupiah has weakened…

After rising 12 percent over 2012, Indonesian equities have continued to follow global equities markets higher into 2013. The JCI equity index is up 13 per cent in 2013 to March 8, driven by strong performances by the finance and especially the property sector. Government bond yields have crept up from their historic lows but interest rates remain low by historical standards and relative to current and projected CPI inflation. The Rupiah fell to a new three-year low against the US dollar in January, though the depreciation has been more modest on a trade-weighted basis and in real terms, reflecting Indonesia's higher inflation rate and recent currency depreciation among major trading partners, particularly Japan. After recovering through the second half of 2012, official reserves also fell by USD 4 billion in January to USD 108.8 billion, amidst tightening onshore US dollar liquidity, and by a further USD 3.6 billion in February to USD 105.2 billion, likely on valuation effects and as Bank Indonesia (BI) intervened to limit Rupiah volatility. In early February, Bank Indonesia reiterated its prohibition on local banks from participating in the offshore non-deliverable forwards (NDF) market, and has begun supplying foreign exchange directly to state-owned energy companies.

The recent slowdown in credit growth has stabilized for now…

The recent slowdown in domestic lending growth since May 2012 appears to have stabilized for now, with nominal credit growth edging higher to 23 percent year-on-year in January, up from 22 percent in November. Real credit growth (adjusted for contemporaneous inflation) also picked up to 18 percent yoy (Figure 16). Growth of investment loans continue to ease to 25 percent in the year to January, from 30 percent in October. Growth in working capital loans slowed to 24 percent year-on-year in January, while consumer loan growth rebounded in year-on year terms to 20 percent in January, from 12 percent in November, reflecting both strong recent monthly credit growth and favorable base effects.

…and credit growth remains high, reflecting catch-up from still low levels of bank intermediation…

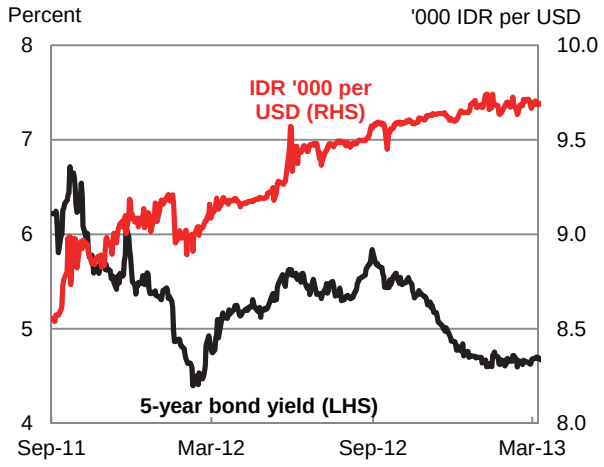
Strong lending growth continues to generate some concerns over possible risks to credit quality. While reflecting strong domestic demand, especially for investment, the rapid expansion of bank balance sheets in recent years (which account for 80 percent of financial system assets) likely also reflects catch-up by Indonesia's financial system from a relatively low base (Figure 17). Despite strong recent lending growth, total banking system assets remained equivalent to just 41 percent of GDP in 2012, compared to 52 percent in the Philippines, 74 percent in India, and 121 percent in Vietnam (2011 figures) (Figure 18).

…and necessitating a strong ongoing focus on prudential regulation and credit quality monitoring

As highlighted in the December 2012 *IEQ*, Bank Indonesia has also implemented prudential limits to dampen lending, including increasing loan-to-value (LTV) requirements for residential mortgages, leading to a slowing in the growth rate of property-related credit

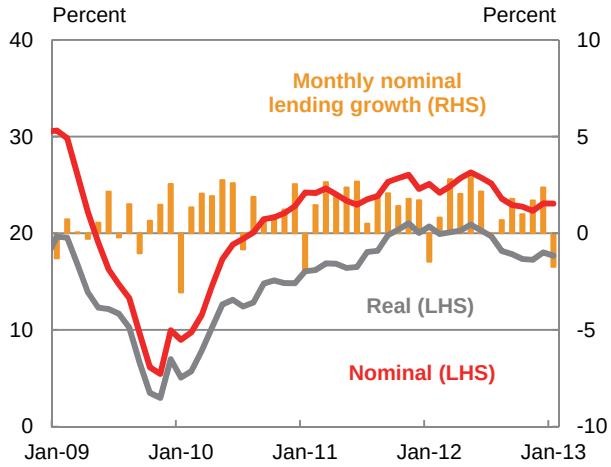
since mid-2012. Mortgage lending rates are also up slightly (see Box 1). Banking sector indicators remained stable to end-2012 and credit quality remains sound despite strong recent lending growth. Bank solvency, as measured by the Capital Adequacy Ratio (CAR) remained high at 19.3 percent, while the level of non-performing loans continued to decline, to below 2 percent in December for the first time.

Figure 15: Bond yields remain low and the Rupiah has depreciated
(IDR per USD; yield, percent)



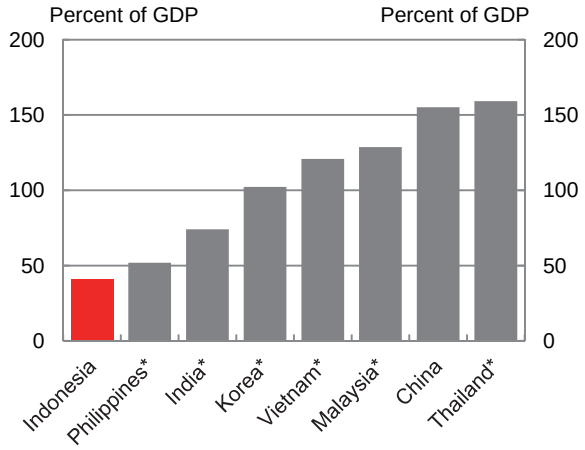
Note: 2013 figures to March 8
Source: CEIC; World Bank staff calculations

Figure 16: The recent dip in credit growth appears to have bottomed out for now
(year-on-year growth, percent)



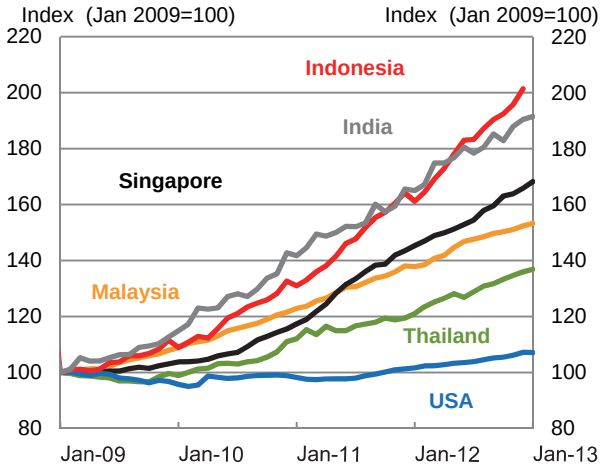
Source: CEIC; World Bank staff calculations

Figure 17: Indonesia's banking system assets as a share of GDP remains small compared with its peers…
(share of nominal GDP, percent)



Note: 2011 figures, except for China and Indonesia (2012)
Source: CEIC; World Bank staff calculations

Figure 18: …despite comparatively rapid nominal credit growth in recent years
(year-on-year growth, percent)



Note: all figures to Jan 2013 except Indonesia (Dec 2012)
Source: CEIC; World Bank staff calculations

Box 1: Property prices, lending growth and risks to financial stability

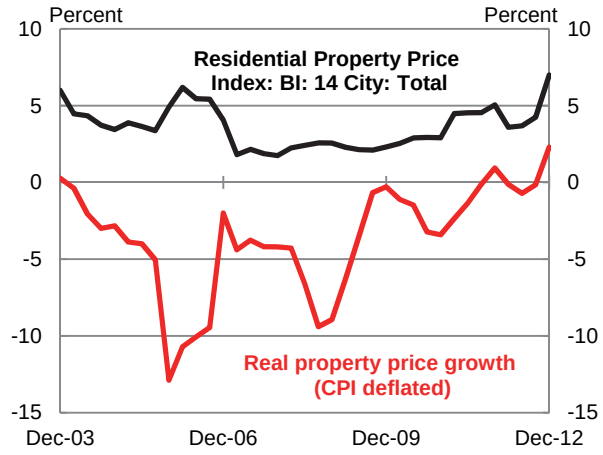
Reported property sales growth among major property companies was strong in 2012 and into 2013, reflecting strong demand for property, particularly among apartments, retail and office space and industrial land around major industrial centers. Selling prices of residential apartments in Jakarta grew 45 percent year-on-year to December 2012, coinciding with a pickup in the growth rate for mortgages for residential apartments, which accelerated to 84 percent year-on-year. Commercial office and industrial space also grew strongly, with selling prices of Jakarta commercial office space up 43 percent to December, and rents on industrial land up 22 percent. Such strong lending and property price growth has led to concerns over potential overheating pressures in certain parts of the Indonesian property market. The key concern centers on the risks of a property "bubble", with expanding property-related lending driving property prices higher, generating large bank exposures to property-related credit in the event of a market downturn.

While pockets of the property market have experienced very rapid price growth, residential house prices on a national basis as measured by Bank Indonesia's 14 cities index shows only moderate growth, averaging 4 percent yearly since early 2010. In real terms, residential housing price growth (adjusted for contemporaneous inflation) has in fact been flat over the past three years. Recent months do point to a pickup in residential price growth amidst signs that recent curbs on the pace of residential mortgage credit are yet to affect underlying residential housing demand; residential housing price growth accelerated to 7 percent year-on-year in December 2012, its fastest pace in at least ten years (Figure 19).

In Indonesia, as in many economies, property price growth maps closely with growth in property-related credit, especially for residential mortgages. Growth in property-related lending accelerated in the first half of 2012 to peak at 37 percent year-on-year in July 2012, driven by growth in residential mortgages which peaked at 44 percent in the same month (Figure 20). BI's move to increase loan-to-value (LTV) requirements for residential mortgages from July 2012 has since seen a slowing in the growth rate of property-related credit, while mortgage interest rates are also up slightly. However, the slowing in the pace of residential mortgage growth since mid-2012 has coincided with a jump in the level of other household lending, pointing to the possibility for other forms of credit to substitute for residential credit.

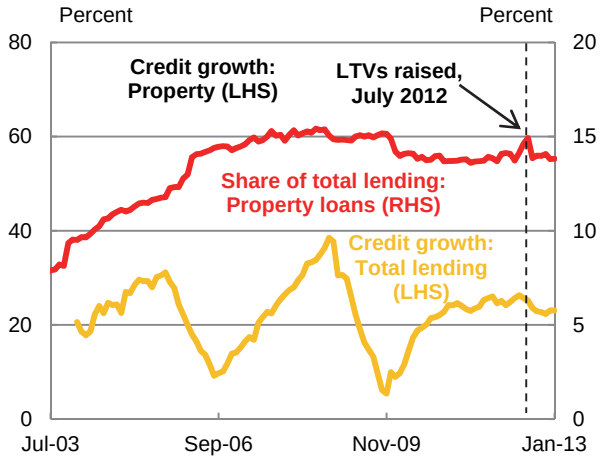
Strong property price and lending growth in certain property market segments merit careful monitoring, but overall property-related exposures in the banking system remain comparatively small at only 14 percent of total bank assets. Non-performing loans (NPLs) for property credit remain stable, with the NPL ratio for residential mortgages at 2.2 percent in January, and just 1 per cent for residential apartments. According to surveys by BI, developers continue to rely on internal funds for project finance, with bank loans accounting for only one-third of total developer funds. Most households use loans to finance residential property purchases, but the majority of mortgages are used to finance lower-value housing. Moreover, according to the most recent survey conducted by BI in 2006, fewer large house purchases are financed by credit, with only 51 percent of houses larger than 70 sqm funded by mortgages.

Figure 19: Residential house price growth has been modest, especially in real terms, but is now accelerating…
(year-on-year growth, percent)



Source: CEIC; World Bank staff calculations

Figure 20: …while property sector lending accelerated to mid-2012 but has since slowed as LTVs have taken effect
(year-on-year growth, percent)



Source: CEIC; World Bank staff calculations

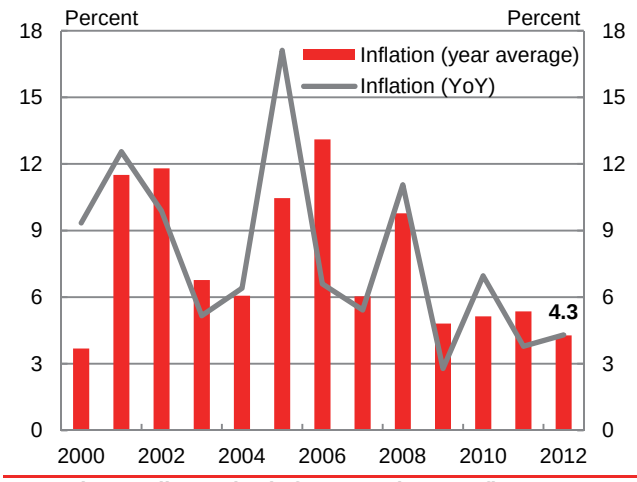
Note: for further information on recent developments in Indonesia's property sector, see Bank Indonesia's *Residential Property Survey* and *Commercial Property Survey* for the September quarter 2012

5. Low economy-wide inflation in 2012 but the CPI has recently accelerated

Year-average CPI inflation was at a 12 year low in 2012 but accelerated by more than a percentage point in the first two months of 2013

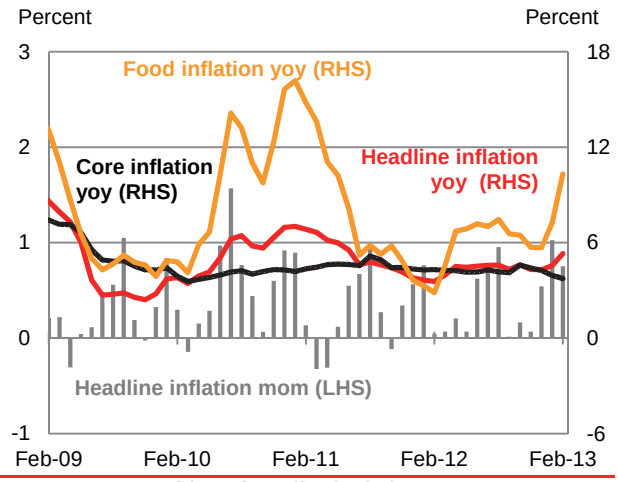
Annual average CPI inflation in 2012 was the lowest in 12 years, despite solid economic growth, benefiting from the absence of large administered price or commodity price shocks (Figure 21). However, in the first two months of 2013 headline inflation accelerated by over one percentage point, to 5.3 percent yoy in February, on the back of higher administered and food prices (Figure 22). Core inflation, a better measure of underlying consumer price pressures, remains relatively low and stable, at 4.3 percent yoy in February (Figure 22). Meanwhile, economy-wide prices, as measured by the GDP deflator, grew at a record low of 4.6 percent in 2012, as inflation across all production sectors dropped, particularly in the mining sector.

Figure 21: Inflation in 2012 was the lowest in 12 years…
(headline consumer price inflation, percent)



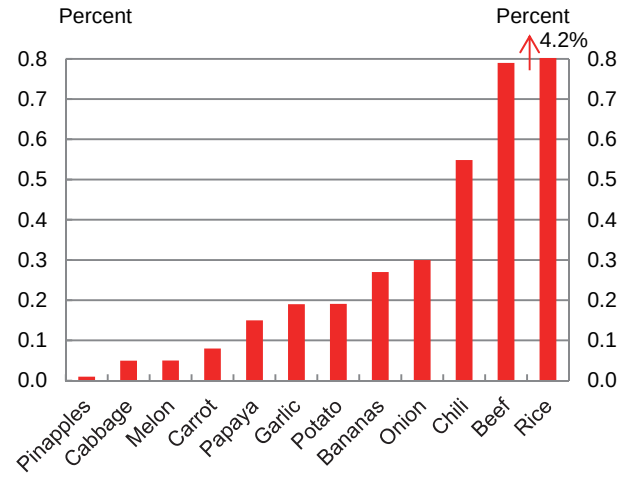
Note: The YoY line series is for December YoY figures
Source: BPS; World Bank staff calculations

Figure 22: …helped by food price disinflation over the second half of 2012 before this accelerated in early 2013
(price inflation, percent)



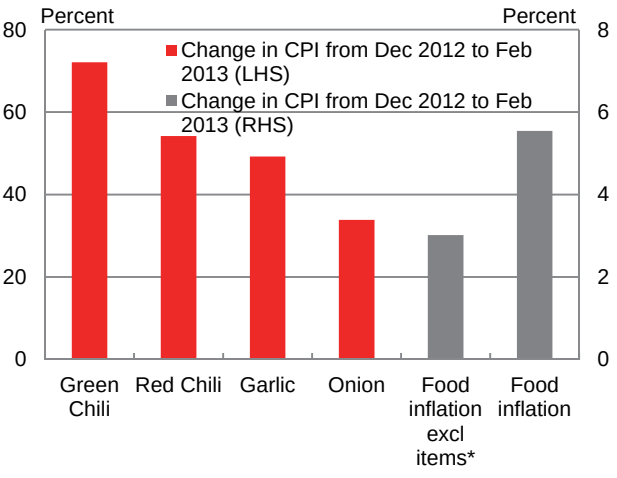
Source: BPS; World Bank staff calculations

Figure 23: CPI weights of the food items affected by recent restrictive trade policies influence their CPI impact…
(headline consumer price inflation, percent)



Note:Weights of other items affected by recent restrictions not available
Source: BPS; World Bank staff calculations

Figure 24: …with some prices recently soaring
(price inflation of the first 2 months of 2013, percent)



Note: *Food inflation excl items refers to the growth in overall food inflation after excluding green and red chili, garlic and onion. Prices of other items affected by recent restrictions were not available
Source: BPS; World Bank staff calculations

There has been a sharp rise in food inflation

Food inflation in 2012 saw the lowest growth in 9 years at 5.9 percent as rice prices growth was also at an 8 year-low. However, food price inflation rose sharply to 10.3 percent in February from 5.7 percent in December 2012, driving much of the recent pick-up in year-on-year headline inflation. Food prices typically increase in the months leading to the main harvest (which usually occurs in March or April). This year, the seasonal impact was exacerbated by severe flooding in January (see Box 3).

Box 2: A look at the drivers of increasing beef prices in Indonesia

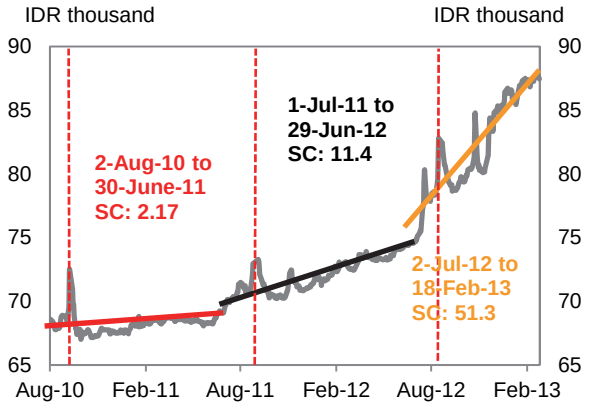
In recent months retail beef prices have increased considerably (Figure 25). This box provides some theoretical perspectives on possible demand and supply-side factors contributing to this rise.

Five possible drivers of such a price increase include: (i) a decline in the volume allocated to beef importers; (ii) a decrease in domestic beef supply; (iii) an increase in domestic beef demand; (iv) an increase in international beef prices, and (v) a depreciation of the nominal exchange rate.

Amid animal health and food safety concerns, a restriction on beef imports was introduced in 2011 under the terms of which importers are required to have special license and allowed only to import beef from certain countries deemed disease-free. In 2012 the Government decided to cut the beef import volume available for importers by 57 percent, which is likely to have triggered an excess demand at the initial price, causing prices to be bid up in order to clear the market.

Turning to domestic beef production (ii), one impediment to domestic beef supply may be high logistics costs, with high costs reducing the quantity supplied at given market prices. Reducing logistics costs would thus increase beef supply. The opposite is true for increases in beef consumption (iii), which puts pressure on prices. The price hikes during Idul Fitri are an example of the impact of seasonal positive demand shocks on the beef price (Figure 25).

Figure 25: The domestic beef price has risen sharply
(daily beef prices, kilograms, thousand Rupiah)



Note: SC stands for slope coefficients. Vertical dotted lines are the last market opening day before the Idul Fitri religious period. The gray line is the daily retail beef price, and red, black, and yellow lines are fitted values for the period specified
Source: CEIC; World Bank staff calculations

External factors can also have a pass through effect on domestic beef prices, especially since Indonesia is a net beef importer. An increase in international beef prices (iv) and a depreciation of the exchange rate (v) could also raise the domestic beef price. Changes in those factors will increase the domestic price of imported beef and encourage substitution to other sources of protein, including to domestically produced beef, which will bid up the domestic beef price. However, since domestic and imported beef are different in their quality and market segments, they are imperfect substitutes, and the pass through effect will not be one-to-one.

While it is difficult to empirically quantify their relative importance, each of the above factors has likely contributed to the significant domestic beef price increase experienced in recent months. However, from a policy point of view, the implications of the textbook theory is clear: allowing an increase in the import volume of beef and reducing costs associated with domestic beef supply would reduce domestic beef prices.

New trade policy measures which limit certain food imports have contributed to food inflation

Recent changes in trade policy have also contributed to food inflation. The import of 13 commodities, 10 of which are food, were restricted from January to June 2013 (Figure 23). This comes after import restrictions were imposed in mid-2012 on several food items, including beef (see Box 2), and starting in January 2013, on shallots, garlic, onions, oranges, apples, and frozen potatoes. Beef prices began to increase sharply at the time the import restriction was introduced. The prices of red and green chilies, garlic and onions, have each increased by more than 30 percent in the two months since imports were curtailed (Figure 24). This is significantly higher than the growth seen in the same period in previous years, and that of other food items not affected by the recent policy moves. The share in the food basket of these four items is only 5 percent but they contributed almost 50 percent of the recent increase in food inflation (Figure 24). Local media reports that significant shortages have been faced by retailers who can no longer import to meet domestic production shortfalls. The higher prices may lead to more producers shifting production to these products in the future, and potentially to consumers substituting away, but it is unlikely any new supply will become available in the short-term. The increase in food price pressures led the poverty basket inflation rate up from its near 3 year low of 5.3 percent in November to 6.1 percent in February.

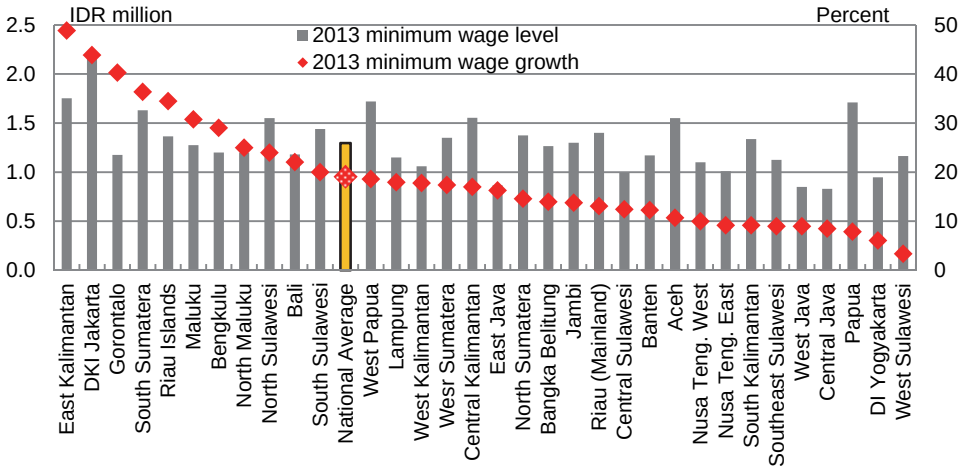
Large increases in minimum wages across Indonesia's provinces in 2013 will have a small direct impact on CPI, but the indirect effect remains to be seen

Provinces across Indonesia have increased their minimum wages for 2013, for example by up to 49 percent on 2012 in East Kalimantan and by 44 percent in Jakarta, the biggest increase in a decade (Figure 26). These increases across Indonesia are likely to have a larger impact on broader cost-push pressures than their immediate, direct effect on the CPI (see December 2012 *IEQ*). Implementation issues and the exemptions provided to labor-intensive firms and to firms which have experienced two consecutive years of financial loss may also dampen the impact on general wage levels and prices. According to the Ministry of Manpower and Transmigration, as of 6 February 2013, 52 percent of the 949 firms who had applied for exemptions were successful in their application and only 13 percent disapproved, with decisions pending for the remainder.

Near-term price expectations have fallen

Some evidence of the muted impact of minimum wage increases, thus far, on broader price expectations was the fall in the consumer price expectations index measured in January 2013 since the recent high in December 2012 (though expectations may have fallen more in the absence of the wage increases). According to BI's survey, fewer respondents compared to last month believe prices in three and six months will increase, largely due to an expectation of a rich harvest season starting in April 2013. Furthermore, the Government's decision to increase electricity prices in 2013 led to increased price pressure for housing costs but this was more than offset by the decline in food prices, resulting in a reduction in the consumer price expectations index. Similarly, retailers reported milder inflationary pressures, with their index of expectations for prices 3-months ahead in December falling.

Figure 26: Large variation in regulated minimum wage increases across provinces
(level in million Rupiah, and annual nominal growth, percent)



Note: National average is the simple average across 33 provinces
Source: CEIC; World Bank calculations

The first round of electricity tariff increases led to a small direct impact of 0.08 percentage points to CPI inflation

February's CPI survey also reported a small direct impact of the first round of quarterly increases for electricity tariffs in 2013, of 0.08 percentage points to monthly inflation. With 3 more rounds of increases scheduled, the cumulative impact is expected to be roughly similar to the impact seen in 2010 when CPI inflation increased by 0.35 percentage points as a result of reforms.

CPI inflation is projected to pick up to 5.8 percent year-on-year in the final quarter of 2013, above the upper end of BI's target range of 4.5 ± 1 percent…

The outlook for CPI inflation is dominated by the risk of upside pressures from policy decisions relating to minimum wages, trade restrictions on foods, as well as the temporary effects of electricity tariff subsidy reform. The impact of these factors will become clearer over the first half of 2013 as the response of producers and consumers to these concurrent shocks begins to filter into wage and price demands. In the near-term, additional pressure is expected from the continued depreciation in the Rupiah, partially offset by the seasonal impact of the upcoming harvest season. The World Bank projects that CPI inflation will rise from 4.4 percent in Q4 2012 to 5.8 percent in Q4 2013, placing it just above Bank Indonesia's target range of 4.5 ± 1 percent. CPI inflation for the full-year 2013 is projected to be 5.5 percent.

…and to move slightly lower in 2014

In 2014, inflation is projected to ease to 5.2 percent for the year as a whole, on the back of a stronger Rupiah, the unwinding of food inflation and the end of incremental electricity price increases scheduled throughout 2013. Poverty basket inflation forecasts are slightly higher than in the December 2012 *IEQ*, at 6.9 percent year-on-year in Q4 2013 and 7.0 percent year-on-year in Q4 2014.

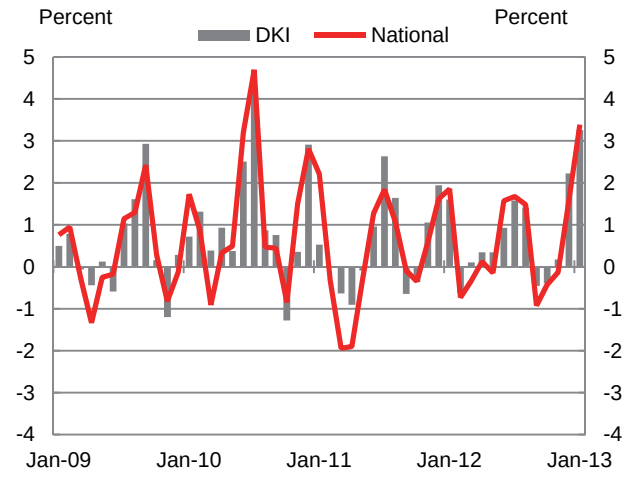
GDP deflator growth has fallen to lows last seen in 1999 as price growth eased across most sectors

As discussed in Section 1, the broader level of prices growth in the economy, as measured by the GDP deflator, ended 2012 at 2.7 percent year-on-year, the lowest growth in 13 years. Over 2012 as a whole, GDP deflator growth was 4.6 percent, the lowest annual rate on record. The rapid deceleration of GDP deflator growth from 9.2 percent year-on-year in early 2011 to its current low of 2.7 percent was seen across all 9 sectors of the economy, with the largest decline in deflator growth occurring in the mining sector which fell by 22 percentage points to record a fall of 2.2 percent year-on-year in December 2012, the lowest growth rate in a decade. Accordingly, the projection for GDP deflator inflation growth for 2013 is revised lower to 4.9 percent. In 2014, GDP deflator growth is expected to rise to 5.9 percent on the back of strengthening economic growth and credit conditions, but remaining less than half the 14 percent average seen prior to the impact of the global financial crisis.

Box 3: Serious floods in Jakarta caused tragic loss of life, and also serious economic disruption and price increases

Serious flooding inundated several areas in the greater Jakarta area on January 16-17, following heavy monsoon rains and the collapse of a 30-meter-long section of the West flood canal dike. The flood, the worst since 2007, directly affected 25 percent of the city, requiring 40,000 people to be evacuated and tragically causing the loss of 21 lives. In terms of the economic impact, several main businesses areas including the Mangga Dua and Tanah Abang markets were affected, and the industrial zones of Pulogadung and Kawasan Berikat Nusantara were inundated, halting their activities for up to 7 days, as well as hampering trade by limiting transportation access to ports. The Jakarta Chamber of Commerce and Industry estimated the economic cost of the flood at IDR 20 trillion (USD 2.06 billion), much higher than Government's estimate of the cost of the previous severe floods in 2007, of IDR 3.3 trillion. The regional governments of flood-impacted regions are now conducting post-disaster needs assessments (PDNA) and implementing recovery plans. Aside from costing the impact of the recent floods, the analytical results of these exercises will provide valuable insights into the economic vulnerabilities to, and impacts of, future flooding.

Figure 27: Food prices increased due to floods
(month on month change in food CPI, percent)



Source: BPS; World Bank staff calculations

The inundations and resultant disruption to supply networks in and around Jakarta led to a pick-up in consumer prices in January, especially for raw food prices such as spices, chilies, fish, fruits, and vegetables. Jakarta and Greater Jakarta (Bogor, Depok, Tangerang and Bekasi) accounts for 38 percent of national inflation. In January 2013, food inflation for Jakarta was 3.3 percent month-on-month, the highest increase in four years, while Bekasi (5.0 percent) and Depok (3.8 percent) also saw strong increases. Tangerang and Bogor, which were less affected, recorded monthly food price rises of 2.0 percent and 1.4 percent. These increases contributed significantly to a surge in monthly national food inflation to 3.4 percent.

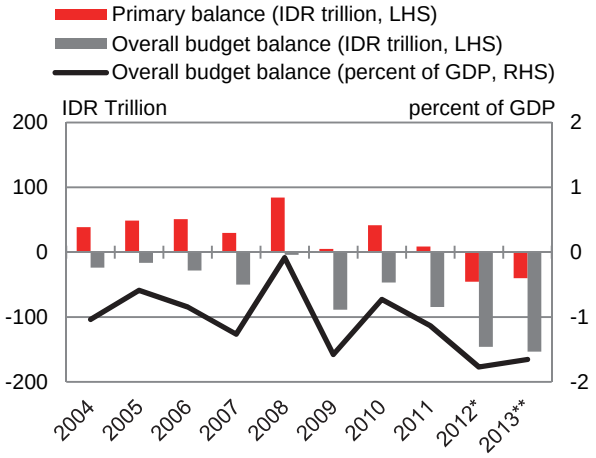
Note: For more information on Jakarta's vulnerability to floods and mitigation measures, see Part B of the December 2012 *IEQ*

6. The fiscal deficit is likely to expand in 2013 on higher fuel subsidy spending

Indonesia's aggregate fiscal position continues to be solid entering 2013…

Indonesia's prudent fiscal policy stance is set to continue in the near-term, as the Government targets a balanced budget by 2016. The budget deficit in 2012 came in at 1.8 percent of GDP or IDR 146 trillion (Figure 28), narrower than the target in the revised Budget of 2.2 percent of GDP, and the World Bank's projection in the December 2012 *IEQ* of 2.5 percent of GDP. This was driven by lower than expected capital and material expenditures, which outweighed the impact of significantly higher energy subsidy spending. The monthly Budget deficit was highly concentrated in November and December, accounting for nearly half of the budget deficit, reflecting problems in budget execution. For a full analysis of the 2012 Budget outturn, see Part B. This section focuses on some recent trends and policy developments relating to the 2013 Budget, which targets a budget deficit of 1.7 percent of GDP.

Figure 28: Prudent fiscal policy set to continue in 2013 *(budget balance and primary balance, IDR trillion and percent of GDP)*



Note: *2012 is preliminary outcome and **2013 is Budget
Source: MoF; World Bank staff calculations

…but improving the quality of spending remains challenging, with regressive fuel subsidy spending continuing to consume a significant share of the Budget…

The allocated spending on energy subsidies, primarily for fuel, continues to be significant in 2013, at nearly a quarter of the central government budget, or 3 percent of GDP. This extends the high level of spending seen in 2012 of 3.7 percent of GDP (of which the fuel subsidy alone represents 2.6 percent of GDP). In terms of reform, the 2013 Budget includes an average 15 percent gradual electricity tariff increase for subscribers with connections above 900 Volt Ampere (VA), effective in January 2013 and does not include any fuel subsidy reform scenario. The 2013 Budget Law does authorize the Government to adjust subsidized fuel prices without the need to obtain Parliamentary approval, subject to macroeconomic developments and fuel subsidy parameters deviating significantly from Budget assumptions. Whether this flexibility will be exercised is highly uncertain as the 2014 election cycle intensifies. In the absence of a fuel price increase, with projected strong growth of vehicle sales and oil prices projected by the World Bank to average USD 110/barrel for the full year 2013, subsidized fuel consumption will continue rising, and is projected to approach 50 million KL in 2013. This would be significantly higher than the Budget assumption of 45 million KL (Figure 29), but would accord with the pattern of previous years, when assumptions on the Indonesian crude oil price (ICP) and subsidized fuel volume were frequently underestimated.

… and ongoing challenges in capital project preparation and implementation

Overall expenditure disbursement in 2012 was 96 percent of the revised Budget, largely driven by significantly higher energy subsidy spending. Budget allocations for capital and material expenditures have increased significantly and hence are a moving target, but Budget execution remains challenging. In 2013, budget execution is expected to slightly improve, supported by the integration of the budget preparation process at the Directorate General of Budget – Ministry of Finance and the revised procurement regulation. However, implementation of capital projects is likely to remain challenging as the new Law and regulations (including associated ministerial regulations) have only recently been put in place and may still need time for dissemination.[2]

[2] The three associated ministerial regulations are the National Land Agency's regulation on technical implementation guidance (Peraturan Kepala BPN 5/2012), the Ministry of Finance's regulation on operational and supporting costs related to land acquisition financed by central government budget (PMK 13/PMK.02/2013), and the Ministry of Home Affair's regulation on operational and supporting costs financed by provincial and local government budget (Permendagri No.72/2012).

Figure 29: Spending on fuel subsidies is likely to overshoot the Budget in 2013…
(subsidized fuel volume, million kiloliters, LHS, and Indonesia crude oil price (ICP), USD per barrel)

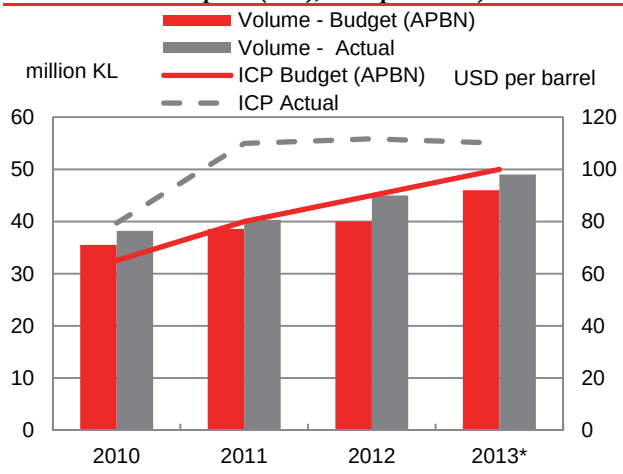
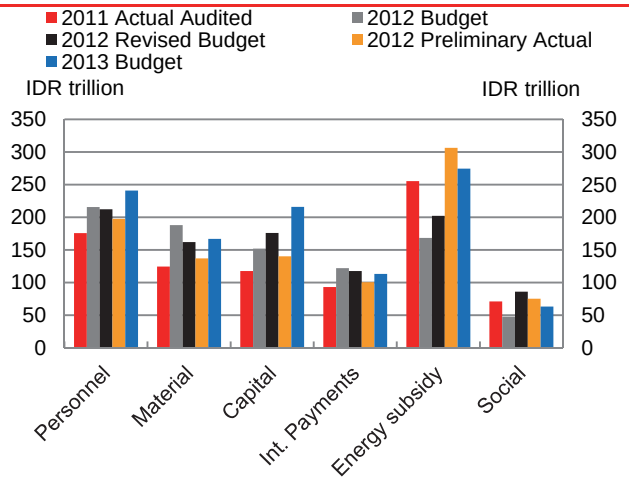


Figure 30: …and, along with budget execution challenges, continue to constrain the quality of spending
(IDR trillion)

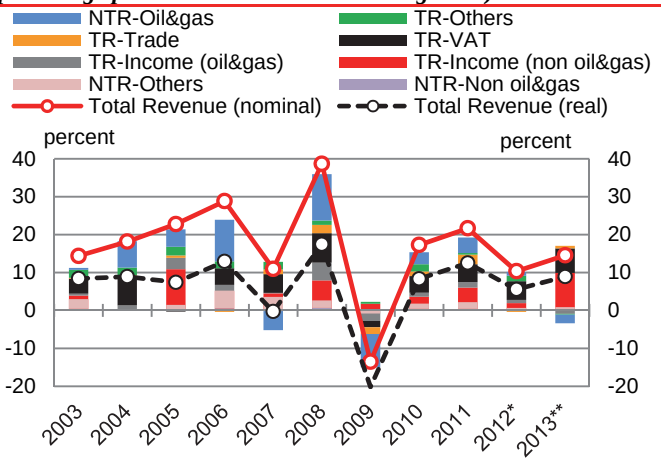


Note: ICP actual for 2013 is World Bank projection (USD 110) Source: MoF; World Bank staff calculations
Source: MoF; World Bank staff calculations

Recent developments point to downside risks to the Government's 2013 revenue target

Though overall revenue collection in 2012 came in at 98 percent of the target in the revised Budget (or IDR 1,336 trillion), full year nominal revenue grew by only 10 percent, compared to 22 percent in 2011. Weaker external demand and lower receipts related to exports and commodities continued through end-2012. Moving into 2013, the Government targets 15 percent nominal revenue growth relative to the 2012 outcome.

Figure 31: Revenue collection is expected to improve in 2013
(percentage point contributions to revenue growth)



Note: *2012 data are preliminary outcome. **2013 data are Budget. TR: tax revenue; NTR: non-tax revenue
Source: MoF; World Bank staff calculations

Some recent developments point to downside risks to the government's revenue collection target in 2013. First, the targeted 1 percent increase in the tax to GDP ratio in 2013 relative to the 2012 outcome (from 11.9 percent of GDP in 2012 to 12.9 percent of GDP in 2013) looks ambitious considering that revenues in 2012 grew by only 0.1 percent of GDP relative to 2011, particularly with the new income tax threshold which is effective in 2013. Second, oil production, an important source of public revenue, is projected to drop to 830 thousand barrels per day (bpd) by SKK Migas (the Government's Oil and Gas Task Force) relative to the target set in the Budget of 900 thousand bpd.[3] However, a stronger oil price than the relatively conservative USD 100 per barrel assumed by the Budget may partly offset the revenue impact of the decline in production. Gas production in 2013 is also expected to be higher than the Government's budget assumption.[4]

[3] http://www.thejakartapost.com/news/2013/01/31/declining-output-likely-see-drop-oil-revenue-18-percent.html
[4] http://www.skspmigas-esdm.go.id/en/skk-migas-tambah-produksi-minyak-121-ribu-barel-per-hari-tahun-2013

New fiscal incentives to boost oil and gas revenues have been announced

In an effort to extract more revenue from the oil and gas sector, the Government has recently introduced a series of fiscal incentives to encourage greater investment in oil and gas exploration. The incentives include exemptions for oil and gas companies from value-added taxes on imported goods as well as on property taxes. However, recent surveys, such as that of mining company executives by the Fraser Institute, described above, point to continued investor concerns over policy uncertainty in the sector.

Looking forward to 2013, the World Bank projects the fiscal deficit to be 1.9 percent of GDP, slightly higher than the Budget

As discussed above, in light of higher projected energy subsidy spending against potentially weaker revenue collection, the fiscal deficit in 2013 is projected by the World Bank to be 1.9 percent of GDP, slightly higher than the Budget figure of 1.7 percent. Unlike in the 2012 Budget, the Government has not allocated a specific contingency budget for higher energy subsidy spending in 2013. However, as discussed above, Indonesia's overall fiscal position remains solid and the Government has the cash to finance some overshooting of the fiscal deficit, with an accumulated surplus (SAL) of IDR 37 trillion.

The government has completed 67 percent of its Q1 2013 gross government bond issuance target

The Government's financing plans for 2013 are broadly on track. By early March, the Government had accumulated IDR 38.3 trillion in tradable and non-tradable bonds, or 67 percent of the bond issuance target for Q1 2013.[5] Indonesia's solid macroeconomic fundamentals and prudent monetary and fiscal management, coupled with relatively favorable yields, have supported bond demand. Domestic and foreign investors showed strong interest in the offerings announced in January and February. Nonetheless, gross securities issuance in 2013 is set to remain substantial at a projected IDR 282 trillion.

[5] See Directorate-General for Debt Management website

Table 3: The World Bank projects a fiscal deficit of 1.9 percent of GDP in 2013, slightly higher than that in the Budget
(IDR trillion, unless otherwise indicated)

	2010 Actual	2011 Actual	2012 Revised Budget	2012 Prelim. Actual	2013 Budget	2013 World Bank
A. State revenues	**995**	**1,211**	**1,358**	**1,336**	**1,530**	**1,458**
1. Tax Revenue	**723**	**874**	**1,016**	**980**	**1,193**	**1,126**
2. Non Tax Revenue	**269**	**331**	**217**	**352**	**332**	**327**
B. Expenditures	**1,042**	**1,295**	**1,548**	**1,482**	**1,683**	**1,637**
1. Central Government, o/w	**697**	**884**	**1,070**	**1,001**	**1,154**	**1,109**
Personnel	148	176	212	198	241	237
Material	98	125	162	137	167	158
Capital	80	118	176	140	216	168
Subsidies, o/w	193	295	245	346	317	355
Fuel subsidy	82	165	137	212	194	232
Social	69	71	86	75	63	63
2. Transfers to the regions	**345**	**411**	**479**	**480**	**529**	**529**
C. Primary balance	41.5	8.9	-72.3	-45.5	-40.1	-66.4
D. SURPLUS / DEFICIT	-46.8	-84.4	-190.1	-146.0	-153.3	179.6
Deficit (as percent of GDP)	-0.7	-1.1	-2.2	-1.8	-1.7	-1.9
E. Net Financing	92	131	190.1	180	153	n.a
1. Domestic Financing	96	149	194.5	199	173	n.a
2. Foreign Financing	-4.6	-17.8	-19.3	-19.2	-19.5	n.a
Key economic assumptions/outcomes						
Economic growth (percent)	6.1	6.5	6.5	6.2	6.8	6.2
CPI (percent)	7.0	3.8	6.8	4.3	4.9	5.5
Exchange rate (IDR/USD)	9,078	8,779	9,000	9,384	9,300	9,600
Crude oil price (USD/barrel)	79.4	111.5	105	112.7	100.0	110
Oil production ('000 barrels/day)	954	899	930	861	900	830

Source: MoF; World Bank staff calculations

7. The official poverty rate continues to decline slowly

The official poverty rate declined to 11.7 percent in September 2012…

Official poverty figures released by BPS show that while the rate of rate of poverty continues to decline, it is doing so at a slower rate. Since 2011, BPS has collected Susenas data on a quarterly basis which has allowed for the establishment of two poverty rates throughout the year. BPS estimates that 11.7 percent of the population lived below the poverty line in September 2012, a 0.3 percent decline from March 2012. This was a slightly faster fall than the 0.1 percent decline experienced from March to September 2011. As data have only been collected for two September periods, the effect of seasonal patterns on movements in the poverty rate between March and September are not well understood.

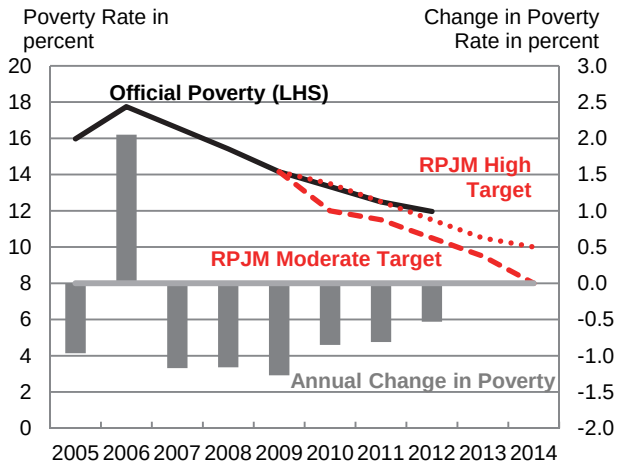
...implying it may be difficult to meet the Government's 2014 poverty target of 8-10 percent

Current trends suggest that it may be difficult to meet the National Medium-Term Development Plan (RPJM) national poverty target of 8-10 percent by 2014 (see Figure 32). The average March year-on-year decline since 2007 has been 0.9 percentage points. The March 2012 poverty rate of 12.0 percent is already above the RPJM targets, and a decline of 1 percentage point each year would be needed in 2013 and 2014 to meet the high end of the RPJM target. However, the rate of decline has been slowing recently, with last year's 0.5 percentage point decline from March 2011 to March 2012 being the lowest in a decade (with the exception of the food price crisis driven increase in 2006). One of the reasons for a slowing rate of poverty reduction in recent years is that the poverty basket inflation has been considerably higher than both headline and core inflation. This looks set to continue with inflation from March 2012 to February 2013 at 6.4 percent for the poverty basket compared to 5.3 for CPI and 4.1 for core, representing a challenge for significant declines in poverty this year.

The variation in poverty alleviation and levels across Indonesia persists

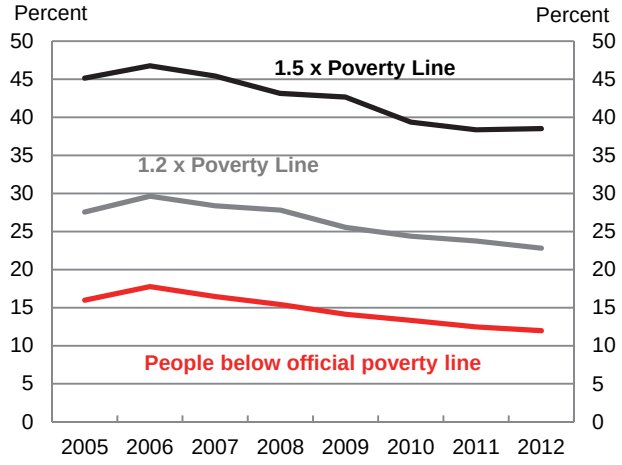
The decline in poverty was marginally higher in rural areas (from 15.1 percent in March 2012 to 14.7 in September) than in urban areas (from 8.8 percent in March 2012 to 8.6 percent in September 2012). Eastern Indonesia, specifically the islands of Maluku and Papua, continue to have the highest rates of poverty in the country, at 24.1 percent, while the lowest concentration of poverty is in Kalimantan, with 6.5 percent. In absolute terms, most poor people still live in highly-populated Java.

Figure 32: Poverty continues to decline, but is lagging the pace required to meet the Government's RPJM targets
(official poverty rate, percent of total population)



Source: BPS; TNP2K; RPJM

Figure 33: Much of the population remains close to the official poverty line, indicating high vulnerability to poverty
(percent of population below given ratio to poverty line)



Source: BPS; World Bank staff calculations

A large share of the population remains highly vulnerable to poverty

Vulnerability remains high, with many people who have left poverty still living close to the poverty line, which was IDR 248,707 per person per month in March 2012. Furthermore, the number of people living within 1.5 times the poverty line has slightly increased, from 38.0 percent in 2011 to 38.5 percent in 2012 (see Figure 33). This suggests that while official poverty continues to decline, vulnerability is not, and that nearly 94 million Indonesians remain highly vulnerable shocks which can send them into poverty.

Much room remains to expand social assistance

The Government has taken some measures to improve the social assistance environment and expand protections for vulnerable households. One such measure is the anticipated expansion of the conditional cash transfer program *(Program Keluarga Harapan,* PKH) to 3 million households by 2014. Launched in 2007, the program provided a cash transfer to 500,000 pilot low-income households across seven provinces, conditional on school attendance and health visits by women and their children. By early 2013 the program will cover around 1.2 million households across 25 provinces. Beneficiaries on average receive a transfer equivalent to 10 percent of a poor household's average annual expenditure; international experience suggests that transfers of between 15 to 25 percent can have more beneficial impacts on poverty reduction and human capital accumulation.

8. Risks to the outlook are being heightened by domestic factors

The growth outlook faces risks…

The World Bank base case is for the Indonesian economy to continue to grow steadily through 2013. Uncertainty over the global economic outlook still remains elevated, but firmer global economic activity and better financial market conditions since late 2012 suggest somewhat reduced risks to Indonesia's economy from negative external shocks. However, a number of domestic developments have come to the fore which may weaken growth.

…from lower fixed investment growth…

The key threat to growth surrounds the investment outlook, the risks to which are broadly three-fold.

First, weaker commodity prices since mid-2011 appear to have begun weighing on investment through the end of 2012. This is in line with the historical link between commodity prices and investment growth, and stems from the importance of commodities for exports, company profits, and for household incomes in parts of the country where the resources sector is important for labor income, such as oil palm growing regions. The latter labor income channel is at the intersection between investment and consumption, and this is a second area where investment growth faces risks. Investment has been increasingly geared towards meeting the demands of Indonesia's rapidly growing consumer market. While consumption is expected to continue to rise strongly, underpinned by favorable structural forces, growth could be blunted should higher inflation due to rising cost-push pressures erode purchasing power, and if high consumer confidence is dampened by associated higher borrowing costs.

Third, investment is likely to face some headwinds from the ongoing failure to address regulatory issues, some policy missteps, and general uncertainty surrounding the electoral process and outcome as the 2014 elections draw nearer. Indonesia also continues to face stiff competition from other economies in the region for export-oriented investment at a time when labor costs, at least for minimum wage workers, have risen significantly.

These risks make sustaining the pace of private investment spending and FDI paramount to the GDP growth outlook. As an indicative example, a halving in investment growth, to 5 percent in 2013 (against close to 10 percent in 2012 and the World Bank base case of 8.0 percent in 2013), would reduce real GDP growth by approximately 1 percentage point.

…rising cost-push inflation pressures…

Inflation risks are skewed upwards. Pass-through from the weaker nominal Rupiah exchange rate was limited in 2012 but will likely continue to feed through into consumer prices with a lag, and sustained currency weakness would compound this. The upward adjustment of subsidized electricity prices by an average of 15 percent, while welcome on efficiency and fiscal grounds, will have a temporary inflationary effect, as would any additional administered price increases through 2014. More pressures come from potential second round price effects from the minimum wage increases granted for 2013, although it remains to be seen how the generally large increases will affect the overall wage distribution and employment. Finally, existing measures restricting trade in products such as foods and electronic equipment will tend to raise prices. Bank Indonesia will need to gauge the risk of these supply-side factors feeding through into higher generalized inflation, which may necessitate tightening monetary policy. This challenge will coincide with the term of the new central bank Governor, which will begin in May 2013 following the announcement that incumbent Governor Darmin Nasution is to retire.

…and management of the external balance

Measures restricting trade and an increase in protectionist rhetoric have coincided with policymakers' concerns over the move into quarterly current account deficits and the depreciation of the Rupiah, which has been a focus for investors. Going forward, it will be important to ensure that policy responses to Indonesia's external account dynamics avoid counter-productive and unintended consequences, such as raising investor risk perceptions at a time when gross external debt financing needs are significant, or reducing competitiveness by increasing domestic prices or hampering exports which rely on imported inputs. In addition, there have been episodes when foreign exchange market liquidity has been tight, and it will be important for policy to help avoid such episodes going forward.

While sustaining growth will require minimizing policy-related uncertainties

In addition to navigating the short-term challenges posed by domestic and international economic conditions, continuing to address Indonesia's medium-term development challenges will require making more progress on economic policy reform and implementation. Notable challenges include ensuring that the communication and implementation of regulatory policies encourage continued private investment growth, while also continuing to raise the level and efficiency of public investment, particularly on infrastructure. An intensification of the political cycle in the build-up to elections in 2014 is likely to make this more difficult. Consequently, over this period it will be important to minimize uncertainties over the policy stance and to emphasize clear communication over potential policy reforms. Future appointments to key economic policy roles, following the nomination of the Minister of Finance as the next Governor of Bank Indonesia, will also frame the macroeconomic policy environment going forward.

B. SOME RECENT DEVELOPMENTS IN INDONESIA'S ECONOMY

1. A closer look at the preliminary 2012 Budget outturn

The preliminary 2012 Budget outturn revealed a smaller than expected Budget deficit of 1.8 percent of GDP

Although 2012 is now behind us, a look at the preliminary 2012 Budget outturn provides a valuable perspective on how public revenues, spending and borrowing are evolving. This section therefore provides a brief overview of these latest Budget figures. The headline number, the budget deficit, came in at IDR 146 trillion (1.8 percent of GDP), significantly lower than the level in the revised Budget of 2.2 percent of GDP. The pictures within both expenditures and revenues were mixed. Total realized revenue reached IDR 1,336 trillion or 98 percent of the revised Budget target, with weaker revenue collection from non-oil and gas income tax and export taxes set against strong growth in VAT and excises. Total expenditure came in at IDR 1,482 trillion (96 percent of the revised Budget allocation), with a substantial underspend on material and capital expenditures offset by a significant overshoot in energy subsidy costs.

The macroeconomic outcomes in 2012 were mixed relative to the Budget assumptions

Macroeconomic outcomes in 2012 were mixed relative to Budget assumptions (Table 4). On the positive side, the average inflation and interest rate (of the 3-month bill, or SPN) came in well below the targets set in the revised Budget at 4.3 percent (yoy) and 3.2 percent respectively. Prudent macroeconomic management and an improved sovereign rating contributed to relatively low yields. The absence of a subsidized fuel price increase in 2012, which under the revised Budget could only be adopted if the six-month average oil price moved above USD 121 per barrel, also helped maintain a moderate inflation rate. On the other hand, the Rupiah depreciated against the dollar by 6.9 percent, from IDR 8,779/USD in 2011 to IDR 9,384/USD in 2012, mainly reflecting pressure on the current account (see discussion in Part A). The realized Indonesia Crude Oil Price (ICP) of USD 113 per barrel was also higher than assumed, while oil production continued to fall, reflecting the lack of new investment and the aging of existing fields. Oil lifting was only 861 thousand bpd, well below the revised Budget target of 930 thousand bpd. Full year GDP growth in 2012, at 6.2 percent (yoy), was below the revised Budget assumption of 6.5 percent.

Table 4: Actual macro outcomes were mixed relative to the 2012 Budget assumptions

	2011	2012		
	Actual	APBN*	APBN-P*	Prelim Actual
Real GDP Growth (percent, yoy)	6.5	6.7	6.5	6.2
Inflation (percent, yoy)	3.8	5.3	6.8	4.3
Exchange Rate (IDR/USD)	8,779	8,800	9,000	9,384
Interest rate of 3 month SPN (percent)	4.8	6.0	5.0	3.2
Crude-Oil Price (USD/Barrel)	111.5	90.0	105	113
Oil Production (000 bpd)	899	950	930	861

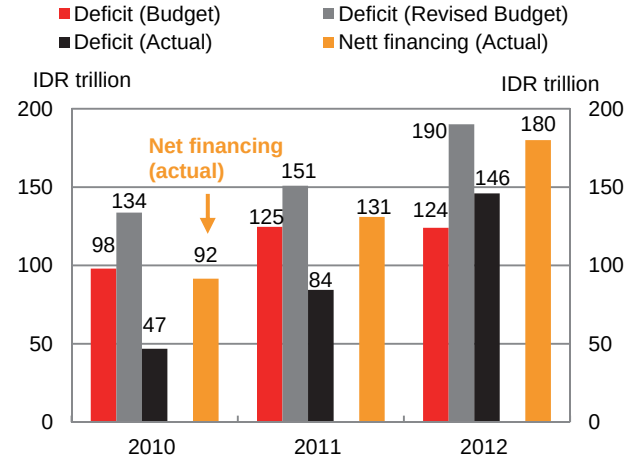
Note: *APBN – Budget; APBN-P – Revised Budget
Source: MoF

a. The preliminary figure for the overall deficit was 1.8 percent of GDP…

The 2012 full year budget deficit came in at 1.8 percent of GDP (IDR 146 trillion), below the revised Budget's target of 2.2 percent of GDP (IDR 190 trillion) and World Bank December 2012 *IEQ* projection of 2.5 percent of GDP

This smaller budget deficit reflected weaker expenditure disbursement across the board, especially for material, capital, and other expenditures, with the exception of the energy subsidy which significantly overshot its allocation in the revised Budget. Revenues, however, were on the whole near the revised Budget's target.

Figure 34: The 2012 deficit came in lower than in the revised Budget
(IDR trillion)



Source: MoF; World Bank staff calculations

Financing plans were broadly on track, with net financing of IDR 180 trillion reaching 95 percent of the revised Budget target (Figure 34). On the one hand, domestic financing, which was largely met by government bonds, came in slightly higher than projected in the revised budget (IDR 199 trillion compared to IDR 195 trillion), and was largely issued in the first half of the year. On the other hand, foreign official financing came in well below target (64 percent of the target in the revised Budget), due to low realization of project financing.

The reported financing balance surplus of IDR 34 trillion was on the back of the smaller deficit outturn (IDR 146 trillion) relative to reported net financing (IDR 180 trillion)

Partly to anticipate a higher deficit due to a significant projected rise in energy subsidy spending, the Government pre-financed its deficit in the first half of the year, largely through the issuance of government bonds. However, in the event, line ministries significantly underspent their budget allocations, contributing to the smaller deficit and a recorded net financing surplus of IDR 34 trillion. However, this figure incorporates a drawdown in the stock of the Government's cash reserves built up in previous years (*SAL*), which declined from IDR 92 trillion at the end of 2011, to IDR 70 trillion by 31 December 2012. Of the end-2012 SAL balance, IDR 33 trillion is expected to be drawn down to finance a portion of the 2013 deficit, amounting to IDR 10 trillion, and to pay for energy subsidy spending accumulated from previous years, estimated at IDR 23 trillion, which is awaiting confirmation for payment following the audit by the Supreme Audit Agency (BPK). The remaining IDR 37 trillion is the projected SAL balance in 2013, which will be used to temporarily pre-finance expenditure in the beginning of the 2013 fiscal year, such as salary payments and regional transfers.

b. …as falling revenue growth was offset by underspends on core expenditures

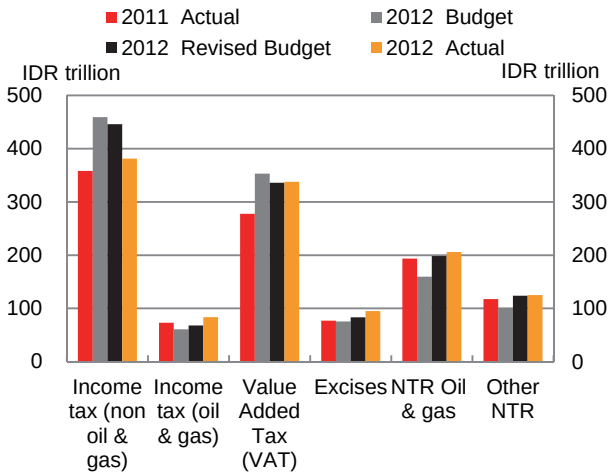
Total realized revenues reached 98 percent of the revised Budget target, or IDR 1,336 trillion, with a mixed picture across revenue categories

Nominal revenue growth in 2012 moderated to 10.3 percent (yoy) relative to the 2010 and 2011 growth rates of 17.3 percent and 21.6 percent, respectively. The tax-to-GDP ratio came in near target at 11.9 percent of GDP, due to a combination of the lower outturn on tax revenues than in the revised Budget and the lower-than-projected real and nominal GDP growth. Revenue collection from non-oil and gas income tax and export taxes continued to moderate throughout the year reflecting weak external demand, falls in commodity prices and weaker nominal GDP growth. However, this moderation was offset by strong revenue growth from value added tax (VAT), excises, and non-tax revenues from oil and gas (Figure 35). The strong VAT outcome reflected robust domestic consumption as well as ongoing measures to improve tax administration. The higher realization of tax and non-tax revenues from oil was largely driven by the higher oil price relative to the budget assumption, more than offsetting the fact that oil production came in below the Government's target, at 861 thousand bpd in 2012.

The disbursement rate for total spending was 96 percent of the revised Budget allocation, also reflecting a mixed performance among expenditure categories

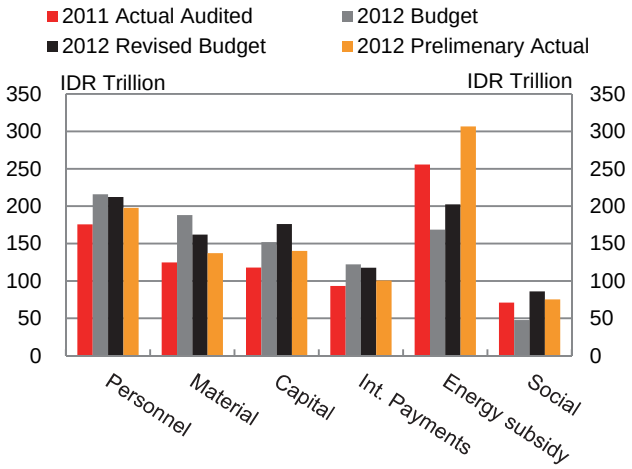
One of the stand out features on the expenditure side was that energy subsidy costs reached IDR 307 trillion, 51 percent higher than the allocation in the revised Budget and equivalent to 3.7 percent of GDP (Figure 36). Fuel subsidy costs reached 2.6 percent of GDP and electricity subsidies 1.1 percent. On top of this, there is an additional IDR 23 trillion of energy subsidy costs that the Government is due to pay next year, awaiting audit verification by BPK. The substantial over-spending on fuel subsidies was driven by a higher average oil price (ICP) and volume of subsidized fuel consumption, the weaker Rupiah, and the absence of subsidized fuel price adjustment as the trigger (USD 121 per barrel or 15 percent above the Budget assumption) set in the revised Budget to allow for an adjustment was not breached. The widening gaps between subsidized and market fuel prices, along with increasing demand contributed to subsidized fuel consumption of 45.2 million KL, relative to the revised Budget target of 40 million KL.

Figure 35: Revenue collection came in near target but performance varied across categories
(IDR trillion)



Note: NTR is non-tax revenues
Source: MoF; World Bank staff calculations

Figure 36: Budget execution challenges remain for core spending, energy subsidy spending rose markedly
(IDR trillion)

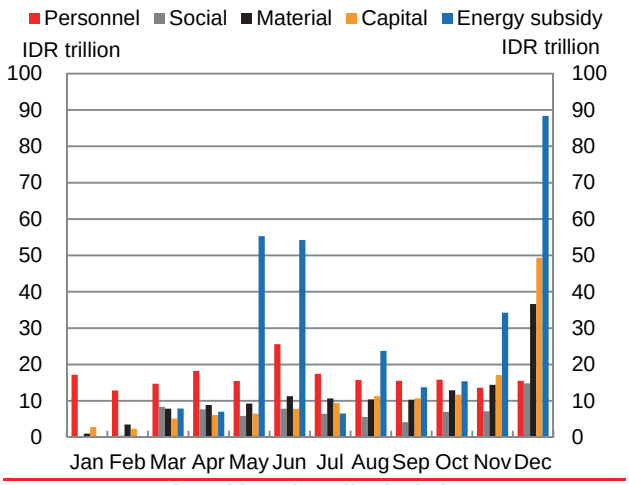


Source: MoF; World Bank staff calculations

On the other hand, budget execution continued to be challenging

Total line ministries' spending (excluding transfers, subsidy, and interest payments) came in at only 87.5 percent of the revised Budget allocation, below the 2011 performance of 90.5 percent (Figure 37). Although material and capital expenditures came in significantly below their targets, at 85 percent and 80 percent respectively, they grew by 10 and 19 percent in nominal terms respectively relative to 2011. In fact nominal growth of capital expenditures was second only to that of fuel subsidies, which grew by 28 percent. Budget execution for materials and capitals has not kept pace with higher budget allocations, though it is important to recognize that the latter have also been increasing rapidly.

Figure 37: As in previous years, a significant share of annual spending was disbursed in December
(IDR trillion)



Source: MoF and World Bank staff calculations

Within capital expenditure, the realization of land acquisition spending relative to target was among the lowest (72 percent), followed by building (78 percent). In addition to long-standing challenges, such as complex budget revision and procurement processes, budget execution in 2012 was also affected by several issues such as the restructuring that took place in several line ministries (Ministry of Education, Ministry of Tourism and Creative Industry, and Ministry of Trade), new policies introduced within the fiscal year which temporarily hampered budget execution (such as the budget efficiency policy), the additional allocation for infrastructure in the Budget revision, and the introduction of measures meaning that new buildings required clearance from the Ministry of Government Apparatus, the Ministry of Public Work, and the Internal Audit Agency (BPKP). On a positive note, interest payments also came in at only 85 percent of their revised Budget projection, largely due to lower yields.

In addition to low absorption capacity, spending patterns remained heavily skewed toward the fiscal year-end

The year-end rush of spending, particularly in December, remained especially significant for material, capital, and energy subsidies. This pattern, particularly for the former two categories reflects long-standing challenges in budget execution, poses risks to the quality of the spending and of potential misuse of public funds. Total expenditure disbursement in December was IDR 272 trillion, 2.5 times the monthly average of January to November 2012 of IDR 110 trillion. By expenditure categories, a significant share of the year's capital (35 percent), material (27 percent), and energy subsidy (29 percent) spending was disbursed in December. In quarterly terms, 56 percent of capital, 47 percent of material, and 45 percent of energy subsidy spending were disbursed in the final quarter of 2012.

In summary, the 2012 Budget outturn confirms that while the overall level of spending and borrowing remains conservative, improving the quality of spending remains a challenge

Perhaps the most striking feature of last year's Budget outturn was the overshoot in energy subsidy spending. The small headline deficit number belies this, due in part to below-target capital spending—another sub-optimal outcome—though stronger than anticipated VAT revenue growth and lower financing costs also helped. These latest budget numbers thus reinforce the desirability of redirecting spending away from energy subsidies. Progress in other areas continues to be made, though challenges clearly remain, notably to improve spending across time (addressing the back-loaded spending profile throughout the fiscal year) and space (see, for example, the December 2012 *IEQ* discussion on the geographic distribution of the quality of infrastructure services from Village Infrastructure Survey results).

2. Understanding the value-added in Indonesia's trade

New value-added data offer a fresh perspective on Indonesia's trade in goods and services

Following the deterioration in the current account balance since mid-2011, Indonesia's trade patterns have been under particular scrutiny. New data from the OECD and the WTO provide a valuable new perspective on Indonesia's trade, by measuring trade in value-added rather than in conventional gross terms. This section provides an overview of this new value-added perspective of trade, highlighting the scope to boost the contribution of exports to the economy, the importance of Indonesia's integration into global supply chains, and the strong link between export and import performance.

a. What can be learnt from looking at trade in value added?

The new OECD-WTO data in trade provide valuable new insights on Indonesia's trade patterns…

New OECD-WTO statistics on trade in value-added (TiVA) provide important new insights into foreign trade.[6] The TiVA dataset traces the contribution to a country's gross exports from inputs from abroad, generating estimates of exports in value-added terms; that is, the value of the economy's goods and services that are embodied in its exports, after accounting for the use of imported intermediate goods and services inputs.

…by revealing the hidden importance of exports and imports

Measuring trade flows in value-added terms using the TiVA dataset helps to capture an economy's role in global supply chains, since it eliminates the over-counting of trade values found in gross trade statistics when the same good is reported several times in national trade statistics as it crosses borders. For example, one estimate suggests that only USD 6.50 (about 3.6 percent) of the total manufacturing cost of an Apple iPhone in 2009 could be attributed to production activities inside China, with the bulk of the value in fact accounted for by the cost of components imported from elsewhere, such as Japan (34 percent), Germany (16 percent), and South Korea (13 percent).[7] Yet it is the full (gross) shipping price of goods which is reported in gross exports—in this example, the full USD 178.96 value of the Apple iPhone in China's exports. Measuring trade in value added, instead of such gross terms, thus clarifies the links between exports and imports, and the availability of high quality intermediate inputs as a factor in export performance.

b. Commodities have driven the patterns of Indonesia's value added in exports

The contribution of exports in value-added terms to Indonesia's GDP growth remains modest

Growth in domestic value-added of exports is estimated to account for only 8 percent of Indonesia's real GDP growth in the decade to 2011, reflecting the modest growth in Indonesia's exports despite the structural uplift in many commodity prices over the past decade (Figure 38). Estimates using the TiVA data also suggest that domestic value-added of exports as a share of GDP declined to 21.9 percent in 2011, from 28 percent in 2005, a similar fall to that seen in gross exports as a share of GDP (Figure 38).

In aggregate, Indonesia's exports contain only a small share of foreign value-added content

The TiVA data show that of Indonesia's total gross merchandise exports in 2009,[8] only 14.3 percent comprised foreign inputs, resulting from the inclusion of foreign parts in the production of merchandise exports (Figure 39). This means that 85.7 percent of the total of gross merchandise exports consisted of domestic value-added content, higher than China (71 percent), but lower than Brazil (97 percent) (Figure 39).

This is due to the large share of natural resources exports, while in manufacturing exports Indonesia appears relatively well-integrated in global value chains

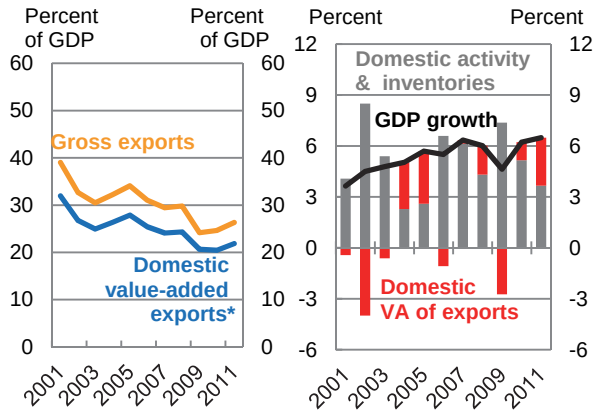
The relatively high share of domestic value-added in exports is the result of the dominance of natural resource-based products in Indonesia's exports (accounting for about two-thirds of total gross exports). Considered separately, however, the manufacturing sector can actually be seen to be relatively well connected to global value chains (Figure 40). For example, almost 40 percent of the value of Indonesia's gross machinery exports consists of foreign value-added, reflecting Indonesia's participation in global production networks, especially with Japan and Korea. Foreign content also comprises a large share of electronics, and textile, clothing, and footwear (TCF) exports (25 percent). In fact, for certain industries, the foreign components of Indonesia's gross exports are even larger than for China, notably in machinery (29.7 percent) and in TCF (14.8 percent) (Figure 41).

[6] http://www.oecd.org/industry/industryandglobalisation/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm

[7] Xing, Y, and Detert, N 2010, "How the iPhone widens the United States trade deficit with the People's Republic of China", ADBI Working Paper No. 257, December

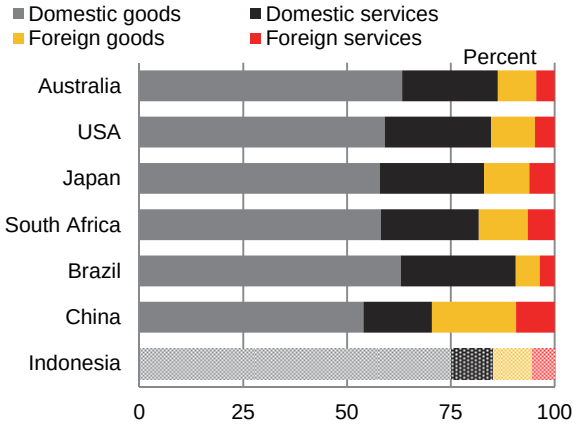
[8] The publicly accessible TiVA dataset provides estimates of value added trade flows for 2005, 2008, and 2009 only, with the lag in the data reflecting the challenges in deriving the estimates

Figure 38: Value-added exports accounted for only 8 percent of Indonesia's growth in the decade to 2011
(share of GDP, percent; growth contribution, percent)



Note: *refers to value-added exports of goods and services
Source: OECD-WTO TiVA statistics; CEIC Database; World Bank staff calculations

Figure 39: Indonesia's gross merchandise exports show a high domestic value-added, and low services, content
(share of total gross exports, 2009, percent)

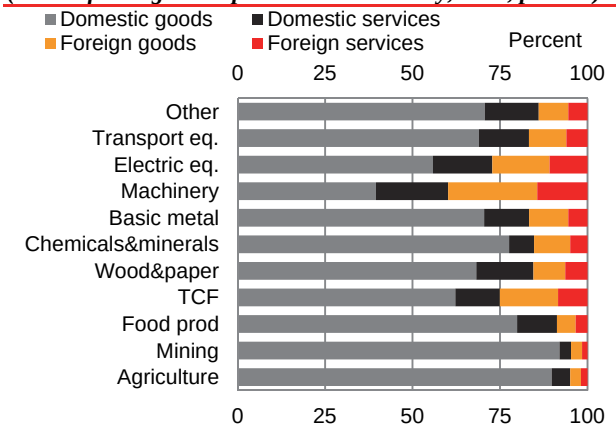


Source: OECD-WTO TiVA statistics; World Bank staff calculations

Service inputs account for a relatively small share of Indonesia's merchandise exports

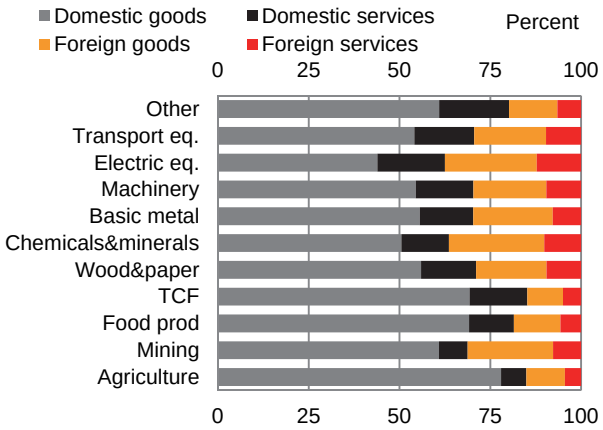
More technologically advanced products and production processes are usually associated with a large share of trade services in total export value-added. This is because for advanced products to be competitive, exports must be supported by service providers, such as in finance-insurance, transportation-logistics, research and development (R&D), and other business services. A striking feature of the TiVA statistics is the relatively low share of services in value-added in Indonesia's trade (Figure 39). This likely reflects the limited amount of advanced manufactured goods exported by Indonesia, and may also stem from exporters' lack of access to affordable, high quality service inputs. This may help to explain the weaker performance of Indonesia's manufacturing exports compared with regional peers.

Figure 40: The share of foreign value-added in some of Indonesia's manufactured product exports is sizable…
(share of total gross exports in each industry, 2009, percent)



Source: OECD-WTO TiVA statistics; World Bank staff calculations

Figure 41: ...while China's exports embody more imported inputs than Indonesia's, except for machinery and TCF
(share of total gross exports in each industry,2009, percent)



Source: OECD-WTO TiVA statistics; World Bank staff calculations

c. Imported intermediates are increasingly going towards domestic production

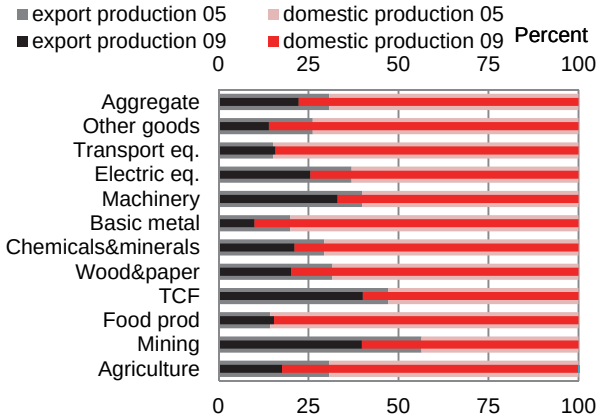
A sizable share of imported intermediate inputs is directed into manufacturing output that is exported

A further key insight from the data is the economic importance of imported intermediates, which account for around a third of total imports (Box 4). About two-thirds of imported intermediate goods go into domestic production (Figure 42). The rest, about one third of total imported intermediate goods, are re-exported—that is, embodied in final products that are exported. Intermediate product imports thus support manufacturing both for the domestic market and for export production.

The share of imported intermediate inputs that went into manufactured exports was lower in 2009 than in 2005

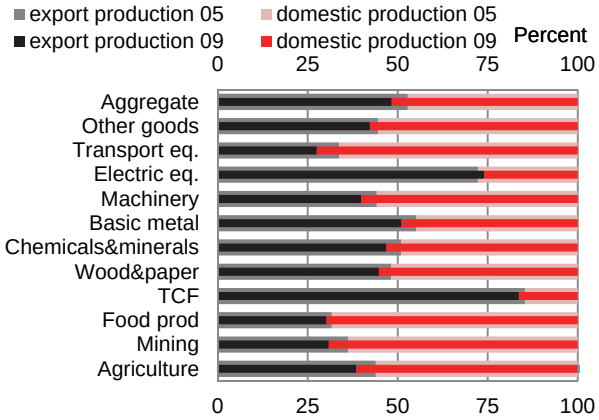
Comparing the TiVA statistics for 2005 and 2009 reveals an interesting change. In Indonesia, the proportion of intermediate goods imports directed towards exports, while significant as reported above, was lower in 2009 than in 2005 (Figure 42, compare solid gray bars for re-exported imports in 2005 with black bars for 2009). For comparison, the share of imported intermediate goods going into production for domestic and export use declined only slightly between 2005 and 2009 in China (Figure 43). This may reflect the temporary impact of the global financial crisis. However, it may also indicate a trend of imports of intermediate goods as inputs to manufacturing for the domestic market growing more quickly than the growth of intermediate goods imports as inputs for export-oriented manufacturing. More recent data are required to better understand the trends in where imported intermediate goods are being directed.

Figure 42: Indonesia's intermediate merchandise imports support both domestic and export-oriented production…
(allocation of intermediate imports, percent, 2005 and 2009)



Source: OECD-WTO TiVA statistics; World Bank staff calculations

Figure 43: …while in China, a larger share of imported intermediate products are re-exported
(allocation of intermediate imports, percent, 2005 and 2009)



Source: OECD-WTO TiVA statistics; World Bank staff calculations

d. Integration into international supply chains could help export diversification

Imports contribute significantly to the value-added of Indonesia's exports, and there is significant scope to expand the contribution of services

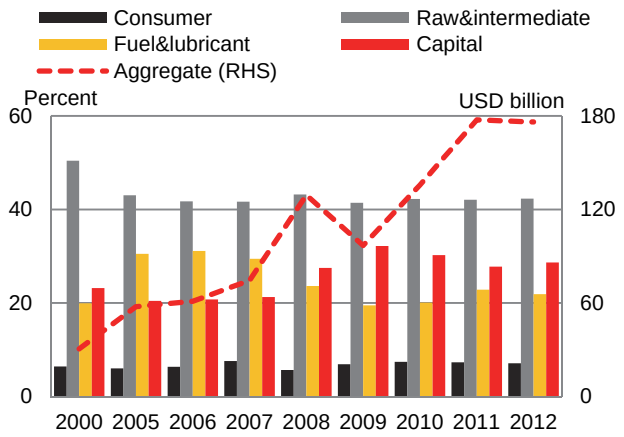
Trade in value-added data offer a useful fresh perspective on Indonesia's trade patterns. The data show that, overall, the share of domestic value-added in Indonesia's total exports is high, reflecting a high share of locally-extracted commodities in exports. On inspection, foreign value-added is revealed to account for a significant share of certain export segments, notably in TCF, machinery and electrical equipment. The importance of imported inputs for export production is such that about a third of imported intermediates go into export value-added. These features of Indonesia's trade demonstrate the importance of Indonesia's integration into global supply chains, and the strong link between export and import performance. This means that limiting imports can have the unintended consequence of also hampering exports. The data also show that there is scope for Indonesia to deepen its linkages to international supply chains by drawing more on foreign value-added in the goods and services that Indonesia exports. This is exemplified by China's value-added trade patterns, which show a higher reliance on imported inputs than Indonesia's. Services value-added in Indonesian exports is particularly low, both for domestic and foreign services. This could reflect limited development of domestic ancillary services for supporting exports, and also low usage by Indonesian exporters of foreign-supplied export services. Encouraging the development of these services would likely help overall export performance and help to diversify exports away from commodities.

Box 4: Indonesia's changing import mix: the growth of capital goods imports and the growing role of Asia

The composition of Indonesia's imports by broad functional category has changed little since 2000, with the exceptions of fuel and lubricants (largely driven by price fluctuations), and capital goods. From 2007 to 2009 there was a significant expansion in capital goods as a share of total imports (Figure 44). As a result, capital goods accounted for 29.3 percent of total imports per year from 2008-12, up from an average of 21.4 percent over 2001-07. "Machinery" and "electric machinery" imports drove most of the increase in capital goods' share of total imports from 2005 to 2011, particularly general electronic devices and parts, ICT-related products and parts, heavy machinery, and generators (Table 5a).

The rising importance of capital goods has shifted Indonesia's import trade more towards China and the Newly Industrialized Economies (NIEs), at the expense of Japan and the EU (Table 5b). Capital goods imports from China accounted for 7.2 percent of total imports in 2011, up 4.6 percentage points from 2005 (over the same period capital goods imports from NIEs rose by 2.3 percentage points to 5 percent of total imports).

Figure 44: Capital goods have risen as a share of Indonesia's total imports
(share of total imports, percent)



Source: BPS; World Bank staff calculations

The strong demand for capital goods imports has coincided with increasing FDI since 2008, with annual FDI inflows during 2008-11 increasing to USD 15.3 billion from an average of USD 6 billion in 2001-07. Increased FDI has occurred in sectors that have pulled in more imports, such as telecommunications, machinery manufacturing, and the electronics and mining sectors. While more analysis is needed to develop a precise view of the linkages, increasing inward FDI in Indonesia is likely to have been one driver of demand for capital imports, especially of machinery and equipment, along with capital-intensive investment for domestic purposes such as passengerpassanger aircraft and machinery for new power plants.

Table 5: Capital goods and the rising role of China and the NIEs in Indonesia's imports

a. The pattern of Indonesia's imports by origin in 2011
(share of total imports in category by country / region, percent)

		Import from:							
Import product:	**Sub category:**	**China**	**ASEAN3**	**NIEs**	**Japan**	**EU25**	**USA**	**RoW**	**World**
Consumer goods	Non-food	1.0	1.1	0.6	0.5	0.4	0.1	0.3	4.0
	Food	0.6	0.7	0.1	0.0	0.1	0.2	1.5	3.3
Raw & intermediate goods	Non-food	5.7	3.7	6.1	3.6	2.3	2.0	10.9	34.3
	Food	0.1	0.6	0.0	0.0	0.2	1.0	2.3	4.2
Fuel and lubricants		0.4	2.7	11.8	0.1	0.1	0.1	7.9	23.1
Capital goods	Machinery and electric machinery	6.4	2.1	4.2	4.1	3.0	1.2	2.1	23.1
	Transport	0.8	1.4	0.8	1.8	1.0	1.6	0.8	8.1
Total imports		**15.0**	**12.3**	**23.6**	**10.1**	**7.1**	**6.2**	**25.8**	**100**

b.Indonesia's imports by origin in 2005 and in 2011 (change from 2005, percentage points)

		Import from:							
Import product:	**Sub category:**	**China**	**ASEAN3**	**NIEs**	**Japan**	**EU25**	**USA**	**RoW**	**World**
Consumer goods	Non-food	0.3	-0.2	0.2	0.1	-0.1	0.0	0.1	0.5
	Food	0.2	-0.1	-0.1	0.0	-0.2	0.0	0.8	0.6
Raw & intermediate goods	Non-food	1.4	0.5	0.9	-0.6	-1.6	-0.6	0.5	0.7
	Food	0.0	0.3	0.0	0.0	0.0	0.3	-0.1	0.4
Fuel and lubricants		-1.8	0.7	-1.6	0.0	0.0	-0.2	-4.7	-7.6
Capital goods	Machinery and electric machinery	4.2	0.7	2.2	0.0	-1.5	-0.6	0.4	5.4
	Transport	0.4	0.1	0.1	-1.4	0.3	0.4	0.1	0.0
Total imports		**4.8**	**2.0**	**1.6**	**-1.9**	**-3.1**	**-0.6**	**-2.8**	

Note: Compares the share of import goods in 2011 to 2005. Figures in b. represent share 2011 – share 2005
Source: COMTRADE via WITS; World Bank staff calculations

C. INDONESIA 2014 AND BEYOND: A SELECTIVE LOOK

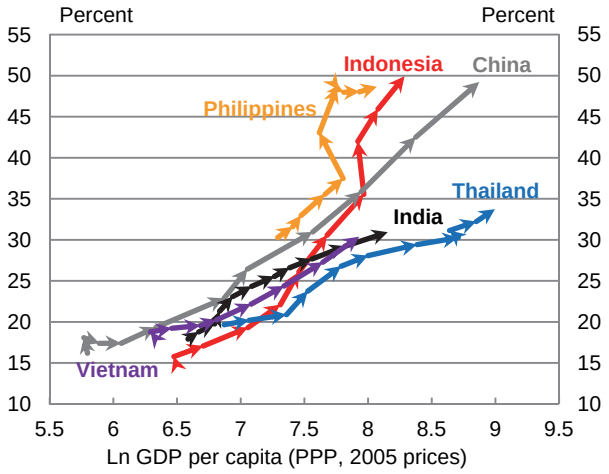
1. Preparing for Indonesia's urban future: harnessing agglomeration economies

a. Cities as the future of Indonesia

Indonesia is one of the fastest urbanizing countries in Asia and its future development path will be shaped by the future of its cities

Indonesia, like other rapidly developing economies, is urbanizing. According to UN data, in 2011, Indonesia became a majority urban country, with 51 percent of its residents living in cities. The rapid urbanization rate is set to continue; by 2025 Indonesia is projected to be 68 percent urban. With the average annual urbanization rate estimated at 4.2 percent between 1993 and 2007, Indonesia is one of the fastest urbanizing countries in Asia (Figure 45).

Figure 45: Indonesia has one of the fastest urbanization rates in Asia
(urbanization rates at given historical per capita GDP levels)



Note: Vietnam data from 1970 to 2010
Source: UN Population Division (2012), World Urbanization Prospects: The 2011 Revision; Penn World Tables

These statistics tell a powerful story of structural transition, as Indonesia moves from a mainly rural and agricultural economy, towards a more urban, manufacturing and service-based economy. In line with the location of most of its people, most of Indonesia's economic value-added also occurs in urban areas. In 2010, approximately 74 percent of GDP was produced in cities, a proportion that will increase as urbanization continues. These facts point us to the future of Indonesia's development: Indonesia is now, and will increasingly be, a country defined by its cities. How national and local policymakers confront the challenges and opportunities of urbanization will be a key determining factor as Indonesia navigates a path to sustained growth and poverty reduction. This section discusses the opportunity and the challenge created by urbanization in Indonesia, with a focus on harnessing the potential of agglomeration economies.[9]

[9]This section focuses on the potential benefits and challenges created by Indonesia's agglomeration areas and draws on The World Bank, 2012, "Indonesia: The Rise of Metropolitan Regions". For more information on Indonesia's economic geography and emerging growth poles, see the September 2010 *IEQ*.

b. Urban agglomeration brings both benefits and challenges

Formation of agglomeration economies increases productivity

How does urbanization translate into economic growth? Urbanization is associated with increases in output and productivity which are normally the result of the formation of urban agglomeration economies. This refers to increases in productivity associated with larger bases of economic activity in general, or "urbanization economies", and increases in economic activity within specific industrial sectors, or "localization economies".

Agglomeration economies benefit from proximity to similar industry and inputs

Agglomeration economies work in a number of ways. Increasing the concentration of population in a given area has challenges, but it also makes it easier to provide crucial services, such as health and education, more efficiently. Jobs are more easily accessible in cities. The clustering of industries allows infrastructure to be shared, which drives down costs, and the proximity of various contributors to the value chain also helps streamline production processes. New firms locating in an established cluster gain access to the pool of skilled labor that has already formed around that cluster.

Silicon Valley is an agglomeration that creates the center of America's software industry

A prime example of the appeal of agglomerations is Silicon Valley in the United States. One might imagine that firms in the software industry, which do not require access to specific natural resources and are highly globally connected via the internet, would have no need to co-locate in a specific geographic place. Yet, due to shared infrastructure, access to a common pool of talent, proximity to top universities, quality of life, and its exciting atmosphere of competitive innovation, this specific area of Northern California has become the undisputed center of the American software industry.

Indonesia will benefit from agglomeration effects such as knowledge spillover as it moves towards a service and knowledge based economy

As Indonesia moves towards more service and knowledge-based industries, some of the more intangible agglomeration effects start to become important, such as the knowledge "spillover" between firms. Clustering also leads to competition, which in turn drives innovation. In order to be globally competitive, firms need to locate in places that provide the quality of life and connectivity that highly skilled workers seek, which is most easily found in established urban hubs. The economic benefits of the proximity and density that agglomerations enable should lead to greater productivity.

An agglomeration is an metropolitan area of an urban core and adjacent districts which are economically connected

Agglomeration areas are functionally defined urban metropolitan areas, which consist of an urban core as the center of economic and social activities, and adjacent districts that satisfy minimum population densities and connectivity to the urban core. In 2008, The Government of Indonesia designated nine metropolitan regions as national priorities (Medan, Jakarta, Bandung, Semarang, Surabaya, Denpasar, Makassar, Manado, and Balikpapan-Samarinda metropolitans), with the enactment of Government Regulation 26 year 2008 about Spatial Planning.

Indonesia's economic growth centers are not limited to the nine metropolitan areas which have been identified as national priorities…

While these metropolitan areas have long established themselves as centers of economic and social activities in their respective regions, we may expect that more growth centers exist outside of these metropolitan areas. A glance at provincial economic growth figures show that rapid growth has also occurred in other provinces in Indonesia, including in provinces where no designated metro areas are located. It is therefore pertinent to explore where economic centers are located, outside of the officially-identified nine priority metropolitan areas.

…and there are other agglomerations that have been identified throughout the country

The Agglomeration Index (AI) method defines an agglomeration based on the size of an urban center, population density, and distance of a district to the urban center.[10] By adapating this method to better suit Indonesia, recent analysis by the World Bank finds that agglomeration actually extends beyond these nine metro areas. These agglomerations may be smaller in size than the official metropolitans, but they also serve as economic centers in their respective regions, attract a labor force to commute to the core cities for economic purposes, and have sizable population densities. Figure 46 identifies the location of agglomeration areas and their size by population density, showing that there are agglomeration areas in all major islands in Indonesia, including Papua. This figure also shows that, contrary to popular belief, Java is not one big urban island, as there are still some parts of Java that are not part of any agglomeration areas.

[10] Uchida, H. and Nelson, A., 2008, "Agglomeration index: towards a new measure of urban concentration"

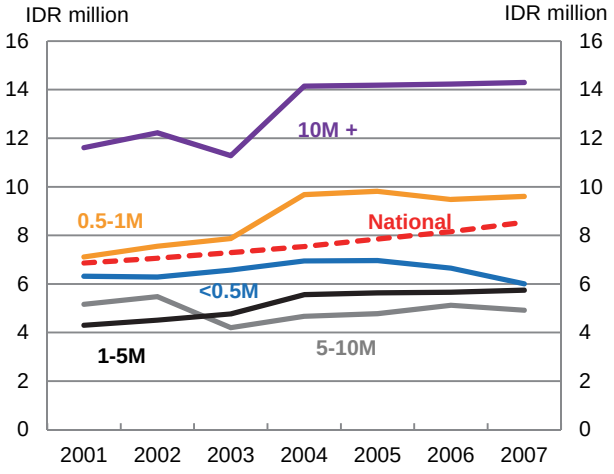
Figure 46: Important agglomeration and densely populated areas exist across Indonesia
(agglomeration areas and population densities, 2007)

Note: Darker shade identifies the location of agglomeration areas and spikes represent population size
Source: "Indonesia: The Rise of Metropolitan Regions", The World Bank (2012)

Some agglomeration areas are performing well, while others are lagging behin

The benefits of agglomeration economies are felt by some agglomeration areas in Indonesia, and less so for others. As agglomeration populations increase in size, one would expect that their per capita gross regional domestic product (GRDP) also increases — an indicator of increasing productivity due to agglomeration economies. This especially holds true for the largest agglomerations. The megacities with populations over 10 million are those with the highest GRDP per capita in Indonesia (Figure 47). However, the next group sizes, the agglomerations sized between 1 to 10 million, are performing less well, as their GRDP per capita was constantly below the national level. Smaller agglomerations (with 0.5 to 1 million people) are doing performing better, with their income levels second only to the megacities.

Figure 47: Megacities and smaller agglomeration centers perform well, but mid-sized agglomerations less so
(per capita real GDP by size of agglomeration, 2001-2007, in 2000 constant price Rupiah)



Note: M denotes population size in millions
Source: "Indonesia: The Rise of Metropolitan Regions", The World Bank (2012); BPS

Size does not matter the most in determining the productivity of an agglomeration

For agglomeration economies, size does not seem to matter the most, as there is a lack of correlation between population size and economic productivity. Therefore, population agglomeration alone is not enough to boost productivity, and other factors are at work – such as inadequate infrastructure, poor market access, inefficient spatial structure, a predominance of low-value added economic activities and a poor business climate. All of these impede business growth and innovation.

Limited access to infrastructure can negatively affect productivity

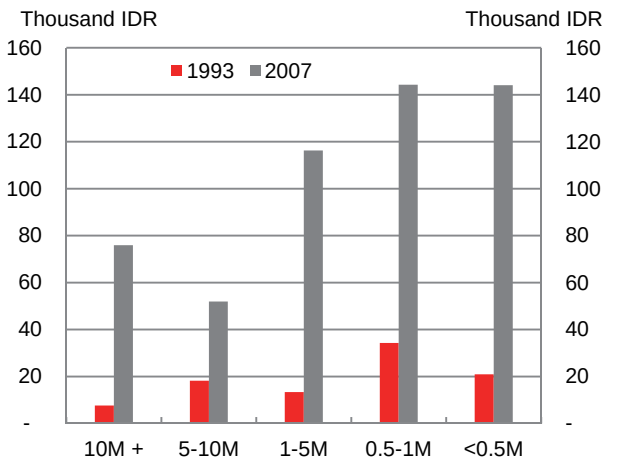
As highlighted elsewhere in this edition of the *IEQ*, access to basic infrastructure remains a key challenge in Indonesia. For the period of 2001 - 2008, capital investment on infrastructure at the local government level averaged 2 percent of GRDP, which appear in sufficient to support high population and economic activity growth in urban areas. Without

adequate infrastructure, businesses are frequently forced to make investments themselves, often at higher costs than would be the case with publicly provided infrastructure. The lack of infrastructure can negatively affect household productivity as they are forced to procure services, such as water, or are required to endure long commute times to work due to limited housing near their workplace and public transportation network.

Capital investment in infrastructure is crucial, as well as improving the efficiency of investmen

The level of spending on infrastructure differs markedly across different sizes of agglomeration (Figure 48). The agglomeration group with the lowest GRDP per capita – agglomerations with populations of 5 to 10 million – are investing relatively less on their infrastructure compared to other size groups. However, the 1 to 5 million agglomerations need to improve their capital spending efficiency, as their relatively high expenditure per capita does not translate into higher economic productivity.

Figure 48: Per capita spending on infrastructure varies widely across agglomeration sizes
(1993-2007, current Rupiah)



Note: M denotes population size in millions
Source: "Indonesia: The Rise of Metropolitan Regions", The World Bank (2012)

Access to basic infrastructure in Indonesia is lower than its regional peers

As highlighted in previous *IEQs*, Indonesia's access to basic infrastructure is considerably lower than its regional peers. In 2009, only 50 percent of urban population has access to safe water. Sewerage coverage exists only in 11 cities, with only 2 percent of the urban population in Indonesia having access to a centralized sanitation system. On average, Indonesia's road density of 1.5 km per 1,000 people is about average in the region; however, road infrastructure quality is lower compared with neighboring Malaysia and Thailand. As for electricity, the National Electricity Company (PLN) noted that in 2010 only 66.5 percent of households nationwide had authorized access to electricity provided by PLN.

Aside from urban basic infrastructure, housing development is also necessary to keep up with urbanization

Aside from investment in urban basic infrastructure such as roads, water, sanitation and drainage, there is another area which needs attention if Indonesia is to increase its economic returns from urbanization. Indonesia is rapidly urbanizing, with a still relatively young population that will demand housing. So far, the majority of housing needs in Indonesia (around 80 percent) have been met with incremental and self-built housing. This is likely to continue to be the case. However, the affordability of housing appears to be declining, especially for low-income groups. The constraints often relate to access to land and finance. While estimates of Indonesia's housing deficit vary, all indicate a significant backlog in supply. One method of analysis for the 2001-2007 period estimates the deficit to be 1.7 million units, and suggests that in order to meet future needs, between 600,000 and 900,000 housing units should be built per year. The number increases as urbanization continues, as for the period of 2014 to 2021 it is estimated that 700,000 to 1 million units of housing per year will be needed.

Answering the housing challenge needs coordination between national, local government and community

A multi-faceted approach is required to address this housing challenge. The key elements of a national strategy should include reforming land policies and permitting regulations; expanding access to, and targeting of, housing finance and subsidies; increasing local government and community involvement in housing; coordinating institutional arrangements; and enabling the private sector to support housing construction.

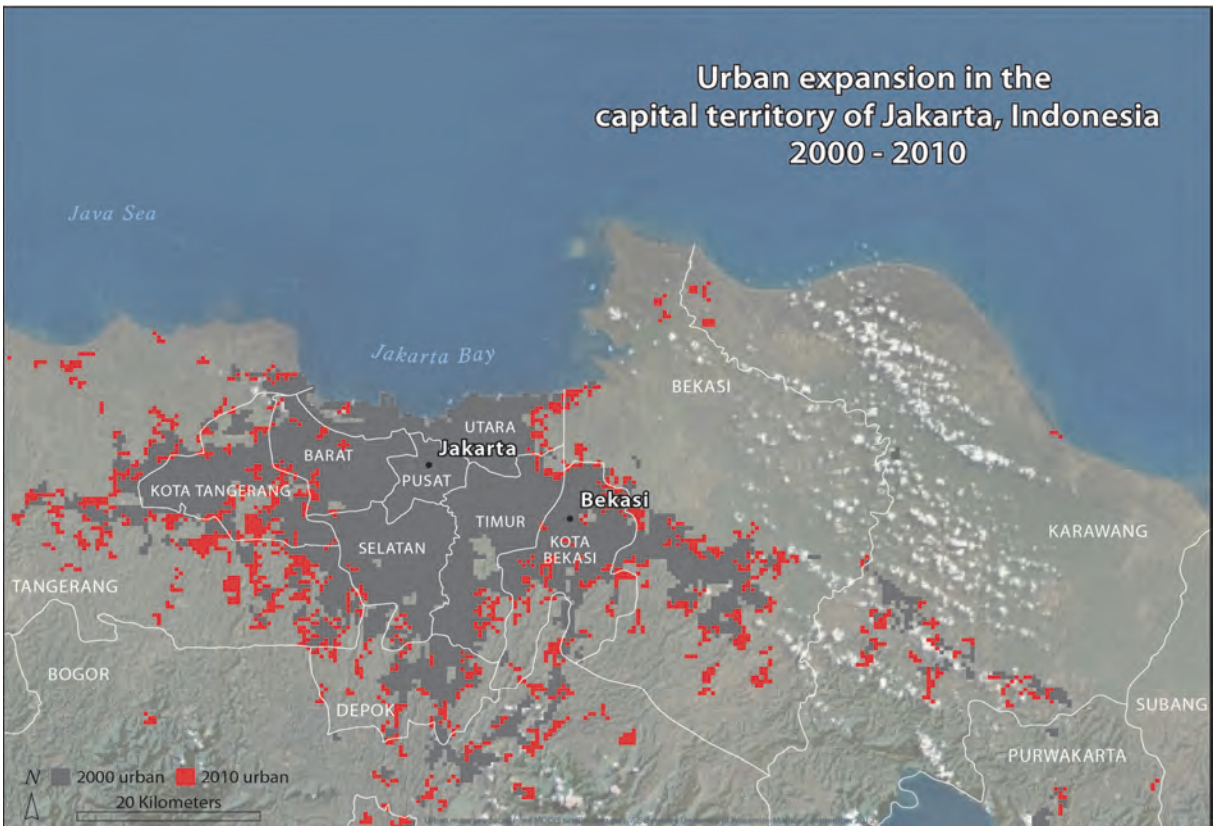
The recent urban spatial growth trend takes the form of urban sprawl

Lack of affordable housing, expensive land in the core cities and inefficient land regulation have contributed to increasingly sub-optimal patterns of urban spatial growth. Between 1996 and 2007, 84 percent of population growth in the 21 largest multi-district metropolitan areas took place in suburban belts. Trends in urban land management, population change, and population density indicate that most land conversion took place in the suburban ring. With few exceptions, metropolitan regions are sprawling, as real estate developers and businesses find it easier, cheaper and faster to develop projects in outlying areas. As a consequence, they are driving urban population densities downward. The data on urban land use and population, when combined with data for regional GDP, clearly indicate the strong and positive correlation between economic density (regional GDP/urban land area) and productivity (regional GDP per capita). Thus, not only are cities then becoming less serviceable as the sprawl, they are also are less productive.

For example, development in the Jakarta metropolitan happens twice as much outside the city core compared to the core

The Jakarta metropolitan region is an example of this kind of urban sprawl, as seen through analysis of satellite imagery. Figure 49 below shows the approximate built-up area of Jakarta in the year 2000, in grey. Urban areas that have developed between 2000 and 2010 are shown in red. Around twice as much built-up area in the Jakarta metropolitan region in fact falls outside the administrative boundaries of DKI Jakarta (1,100 sq. Km in 2010) as inside (560 sq. Km in 2010). More importantly, while the built-up area within DKI Jakarta grew by only around 1 percent per year on average, the surrounding metropolitan area grew by 4 percent, with some areas like Bogor and Tangerang growing at 5 or 6 percent each year.

Figure 49: Urban areas of Jakarta have expanded rapidly between 2000 and 2010



Source: A. Schneider, University of Wisconsin, in World Bank, East Asia Urban Flagship Report (2013, forthcoming)

Sprawl in Indonesian cities has the potential to worsen existing urban problems

It is often believed that a high concentration of urban activity leads to traffic congestion, so it is tempting to think that spreading out urban activity may reduce traffic congestion, which would reduce pollution and improve quality of life. This is a mistaken assumption which many cities around the world have made, often making the problem worse. In fact, de-concentration of urban activity requires residents to use vehicles for even basic needs,

such as buying groceries or going to school, and the further apart the destinations are the longer the trips need to be. A sprawling urban form therefore leads to more vehicles on the road for longer durations per trip, which adds to traffic congestion and carbon emissions. In contrast, a compact urban form, coupled with walkable urban design, allows more trips to be made on foot, and vehicular trips to be shorter, which reduces congestion. Thus, urban density can in fact reduce traffic congestion.

c. The way forward: making the most of urbanization and agglomeration in Indonesia

Indonesia needs a multi-faceted strategy to manage urbanization and leverage growth

Indonesia needs to leverage urbanization to foster socio-economic development to a much greater extent than it has done so far. A multi-faceted and differentiated strategy is required, in order to manage urbanization to better leverage growth. The possible portfolio of actions and interventions might include a set of coordinated policy actions at the national and subnational levels. In thinking of coordinated urban policy, it is critically important to acknowledge how cities and their surrounding agglomeration areas perform as centers of economic activities, and to differentiate these agglomerations by different population sizes.

Metropolitan coordination that extends beyond administrative boundaries is the key to empower large metropolitan regions

In large metropolitan regions, coordination on strategic infrastructure investment and regional economic development is critical. Current administrative boundaries of metropolitan areas have not adequately reflected the spatial limits of economic activities or the dynamics of regional markets. Issues that affect these activities and markets need to be coordinated across administrative boundaries. Most of Indonesia's large cities are experiencing a shift in spatial structure, moving from a spatial structure of single city center (mono-centric) to polycentric structures. In most cases, the development of new centers of economic activity is poorly planned and poorly integrated with investments in transit, residential development and urban services. This shifting in city spatial structure should be responded to with better city planning, to facilitate the creation of more efficient structures and promote better connectivity between the city and other cities and local governments within the metropolitan area. Large cities need to consider revitalization and repurposing of older central city and suburban areas, requiring advanced planning skills and, more importantly, new mechanisms to foster land consolidation.

The future of Indonesia's urban development lies in small to medium cities

In the next decade most of Indonesia's urban population growth is projected to take place in small to medium size cities with populations of less than 5 million. These cities will need considerable technical and financial support to accommodate their expected growth. However, many small cities are not growing and need assistance to increase prosperity for their residents. Smaller cities would greatly benefit from improving the business environment, investing in basic services and improved connectivity to regional centers.

Indonesia has a chance to realize the potential benefits of urbanization with the right policies and investments

The transformation of Indonesia from a rural to a mostly urban country, already well underway, is one of its most critical challenges today, with far-reaching impacts on the economy, society and environment. At this stage, Indonesia has a valuable chance to get urbanization right before it is locked into spatial structures that will be costly to undo. Considering the potential benefits that can be realized with the right policies and investments, Indonesia has reason to be cautiously optimistic about its urban future.

2. Piecing together the picture of Indonesia's infrastructure investment trends

Infrastructure weaknesses are holding back Indonesia's growth potential…

After falling off sharply following the 1997/1998 Asian financial crisis, Indonesia's infrastructure investment has struggled to return to the levels seen prior to the crisis of above 7 percent of GDP. This is in sharp contrast to the strong increase in total investment rates, which are now well above pre-1997/98 levels. Despite numerous attempts to overcome infrastructure bottlenecks, the level and quality of infrastructure lag rising needs, driven by increases in income, modern production processes and rapid urbanization (discussed in the previous section). As long-suffering residents of Jakarta can attest, traffic in the capital is regularly gridlocked, and serious traffic congestion is now a problem in many cities. Meanwhile trade movements through Tanjung Priok, Indonesia's main port of entry and exit, are seriously delayed, the country's airports are overcrowded, electricity supplies are often problematic, and water and sanitation services are, in many areas, failing to keep up with demand.

…which has triggered an increasing policy focus on infrastructure investment

Indonesia's infrastructure challenges are well-recognized and the Government has committed to address them through, for example, the Medium-Term Development Plan and the 2011-2025 *Master Plan* for the Acceleration and Expansion of Economic Development.[11] A range of policies and institutional frameworks have been introduced to accelerate infrastructure development and there has been a marked increase in Budget allocations to capital expenditure in recent years.

However, consistent and reliable information on infrastructure investment in Indonesia is scarce and difficult to obtain

However, despite the importance of infrastructure and the need for good data to make good policy, consistent data and information on the level of infrastructure investment in Indonesia, and on the stock of infrastructure capital, are scarce and difficult to obtain. To fill this gap, the World Bank has compiled a dataset of infrastructure investment, by sector and by source—central and regional government, state-owned enterprises (SOEs) and private—from the mid-1990s.[12] In compiling this data many difficulties were encountered, particularly in trying to ensure consistency over time (see Box 5). The data should therefore be viewed as preliminary and subject to further refinement and are also silent on the quality or efficiency of the investment. With these caveats, this section presents the initial findings on the recent trends of the level of infrastructure investment in Indonesia and highlights areas for potential future work, such as understanding the links between Indonesia's infrastructure investment, and infrastructure capital stock and growth performance.[13]

[11] For related analysis see the June 2012 *IEQ* for an overview of Indonesia's infrastructure challenges and of the *Master Plan*. See also the December 2012 *IEQ* for a review of the 2013 Budget and disaggregated analysis of access to infrastructure services from the Village Infrastructure Census.

[12] The data collection builds upon previous analysis in World Bank (2005), "Averting Infrastructure Crisis: A Framework for Policy and Action" and in World Bank (2007), "Spending for Development: Making the Most of Indonesia's New Opportunities"

[13] This section draws on forthcoming World Bank analysis on "The State of Indonesia's Infrastructure: How it is and how it might have been" by Ahya Ihsan, Paul Lemaistre, Jon Saariatmadja and William Wallace

Box 5: Methodological note on infrastructure investment data in Indonesia

It is important to define clearly what is meant by infrastructure and infrastructure investment. For this data collection exercise, infrastructure investment is defined as investment made by general government, state owned enterprises, and private sector entities in the transport, irrigation, water and sanitation, electricity and telecommunications sectors. This definition is used to ensure data consistency across periods, entities, and sectors. As most information is sourced from financial or budget reports, investment is measured by the level of investment spending per period rather than by physical measures, such as the length of roads, irrigation and water systems, electricity generation capacity or number of telephone connections. The focus below is on infrastructure investment, which is a subset of total infrastructure spending which includes maintenance or other related spending.

For the general government, data are disaggregated by central and sub-national government. First, central government infrastructure investment data are obtained from budget information published by the Ministry of Finance and refer to line ministries' capital spending on infrastructure-related functions and sub-functions. This differs from the Government's definition of infrastructure spending which includes contingency budgets and financing such as spending on the land acquisition fund and capital injections to the Infrastructure Support Facility, community or social infrastructure, housing development, special area development, and estimates of transfers to sub-national governments which are spent on infrastructure development such as part of the specific block grant (DAK) and general allocation fund (DAU).[14] Second, sub-national government data are collected from the Ministry of Finance Regional Financial Information System (*Sistem Informasi Keuangan Daerah* or SIKD) and then processed by the World Bank. Since sub-national budget format and reporting have changed over time, some assumptions and adjustments were made for consistency. The reported figures on the Government's capital expenditures differs from infrastructure investment as the former covers investment in all sectors including, for example, government buildings and military equipment. Some issues encountered in collecting this government data are changes in budget categories and reporting systems, such as the change in the budget classification from a split between routine and development spending to economic and functional classifications following classification of functions of government (COFOG) of the IMF Government Finance Statistics Manual 2001.

For the private sector, the data are obtained from the World Bank-Public-Private Infrastructure Advisory Facility's Private Participation in Infrastructure (PPI) database. This includes projects that reached financial closure that are owned or managed by private companies and that directly or indirectly serve the public; captive facilities (e.g. cogeneration power plants and private telecommunications networks) are excluded unless a significant share of the output (20 percent or more) is sold to serve the public under a contract with a utility (see http://ppi.worldbank.org/resources/ppi_methodology.aspx for further details).

Data collection for State-Owned Enterprises' (SOEs) infrastructure investment has been the most challenging. The separate financial reports of individual SOEs (both hard and soft copies) have been used since a centralized SOE financial report is not available. Infrastructure investment by SOEs is estimated using the reported capital expenditure in the financial report where available or cash flow statement from investing activities for those that do not explicitly report capital expenditure. Due to the lack of a centralized reporting system and the significant efforts required to collect data from local owned water companies (PDAMs) across local governments, the investment of PDAMs in water and sanitation is not included.

Note: Further discussion on the methodology, assumptions and sources used to calculate the data in this section are documented in a forthcoming World Bank Indonesia technical note on *Indonesia Infrastructure Data*

a. Infrastructure investment has not recovered to pre-Asian crisis levels

Indonesia's infrastructure investment levels have still not fully recovered to pre-Asian crisis levels…

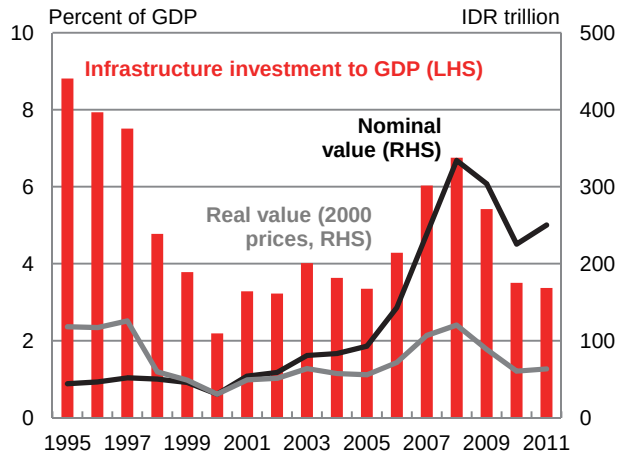
More than a decade after the 1997/1998 crisis, Indonesia's infrastructure investment has trended between 3 and 4 percent of GDP (Figure 50), with the exception of 2007 to 2009 when it reached an average of 5.7 percent of GDP. This sudden increase was due to the fast track program of investment in coal power generation by PLN, the state-owned electricity utility (which also boosted capital imports – see Box 4 in Part B). In real terms, average infrastructure investment in 2010-2011 was about two thirds of what it was in 1995-1997, although in nominal Rupiah terms it grew by almost fourfold. The recent average infrastructure investment level of 3 percent of GDP (2010-2011) is well behind most of Indonesia's neighbors, such as China, Thailand, and Vietnam, which have tended to have average infrastructure investment levels of above 7 percent of GDP.[15]

…although the aggregate (fixed) investment ratio to GDP has seen strong growth in recent years

The level of gross fixed capital investment across all sectors in the economy (including construction, machinery and equipment, and transportation equipment) also fell significantly following the 1997/1998 crisis. However, driven by construction investment, the overall investment-to-GDP ratio has recovered more strongly than infrastructure investment, rising to 32 percent in 2010-11, surpassing the level seen before the Asian crisis of 29 percent of GDP (Figure 51). Notably, the overall investment ratio also continued to rise through 2010 and 2011 when infrastructure investment fell off.[16]

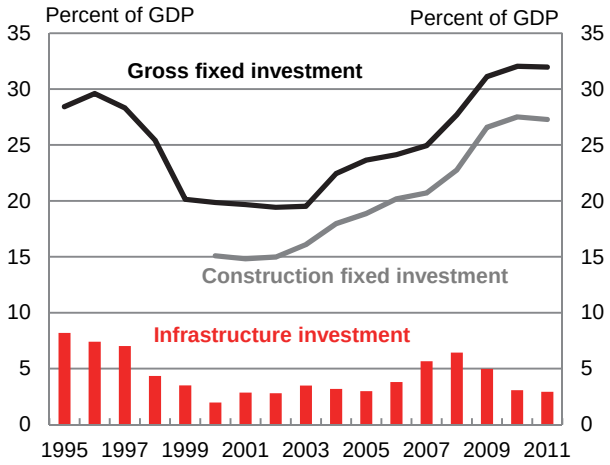
[14] For details on the Government's definition, see website of the Direktorat Jenderal Anggaran.
[15] Asian Development Bank; World Bank; Japan Bank for International Cooperation, 2005, "Connecting East Asia : A New Framework for Infrastructure"
[16] While these two sets of numbers are not directly comparable given their different methodology and composition, their relative patterns are of interest and require further consideration, particularly for understanding the different types of non-infrastructure construction that have been fueling aggregate investment growth.

Figure 50: Despite the strong increase seen over 2007 to 2009, infrastructure investment fell again in 2010 and 2011
(infrastructure investment as share of GDP, percent; nominal and real infrastructure investment, IDR trillion)



Note: Real value calculated using investment GDP deflator
Source: Infrastructure investment data as detailed in Box 5 and World Bank staff calculations

Figure 51: Unlike infrastructure investment, the overall fixed investment ratio has surpassed pre-1997/1998 crisis levels
(nominal investment levels as share of GDP, percent)



Note: Gross fixed investment (capital formation) and construction fixed investment from national accounts data
Source: BPS; infrastructure investment data as detailed in Box 5 and World Bank staff calculations

b. What has been driving the recent trends in infrastructure investment?

There have been some marked compositional changes in Indonesia's infrastructure investment in the years since the 1997/1998 crisis

Within this declining trend in overall infrastructure investment, there have been some compositional changes both in the source of the investment and the sectors to which the investment is directed. In particular, with the process of decentralization, there has been a rise over the past decade in the share of sub-national governments' spending, whose level of infrastructure investment-to-GDP more than doubled between 2001 and 2011.[17] At the same time, the share of infrastructure investment classified as private has fallen markedly. In terms of the sectoral split, transportation has accounted for a rising share of the total, with energy experiencing a relative decline.

Looking at infrastructure investment relative to GDP, investment by government (central and sub-national) shrank by 0.7 percentage points from 1995-1997 to 2010-2011 (Figure 52). Both the private and SOE sectors saw drops of around two percentage points (from 2.3 percent and 2.8 percent of GDP in 1995-1997, respectively). In the 1995-1997 pre-crisis period, SOEs, the Government and the private sector accounted for roughly equal shares. Against a sharp decline in private sector, and moderation in SOEs', investment in recent years, the government contribution to overall infrastructure investment increased markedly led by sub-national government (Figure 53). In 2010-11, sub-national government infrastructure investment accounted for almost 40 percent of total infrastructure investment, followed by SOEs, central government, and the private sector.

Government investment in infrastructure has nearly recovered from its falls following the Asian crisis…

In the mid-1990s, government infrastructure investment was around three percent of GDP. It declined dramatically between 1998 and 2000 to just below one percent. Investment partially recovered to 1.7 percent between 2001 and 2006, before picking up to 2.6 percent in 2007 to 2009, led by the rise in sub-national government spending, and averaged around 2.2 percent over 2010 to 2011. Most of the increase from 2000 has been seen in investments in transport infrastructure (roads) and water supply and sanitation.

…driven by sub-national government spending,

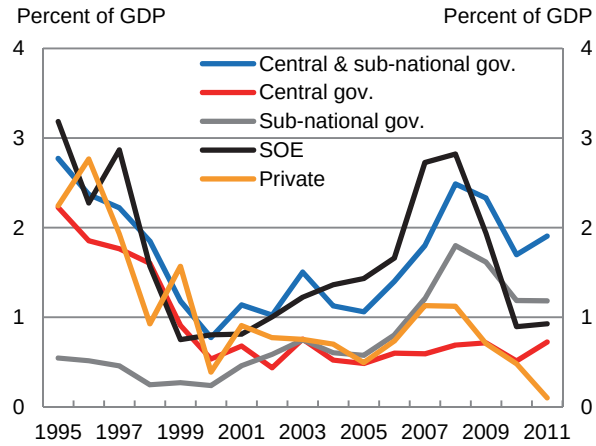
Fiscal decentralization, which came into effect in 2001, changed the fiscal structure between central and sub-national government, as numerous expenditure assignments (11

[17] Time series comparisons for central and sub-national levels of government which span pre- and post-2001 periods may not be on a like-for-like basis due to the impact of fiscal decentralization.

reflecting the impact of fiscal decentralization from 2001

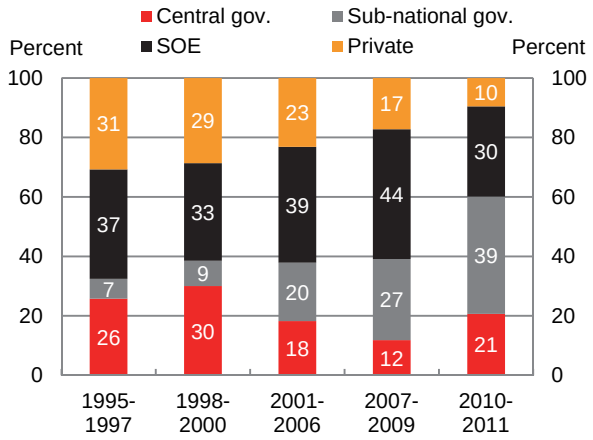
sectors, including management and investment of local roads and water and sanitation) were transferred to sub-national governments. Prior to decentralization, about 80 percent of government infrastructure investment came from the central government, with only 20 percent provided by sub-national governments. In the years subsequent to 2001, this shifted to about 65 percent of spending by sub-nationals and only 35 percent by the central government.

Figure 52: Private sector infrastructure investment-to-GDP has fallen markedly…
(infrastructure investment as share of GDP, percent)



Source: BPS; infrastructure investment data as detailed in Box 5 and World Bank staff calculations

Figure 53: …while the share of sub-national governments has increased with the process of decentralization
(share of total infrastructure investment, percent)



Source: Infrastructure investment data as detailed in Box 5 and World Bank staff calculations

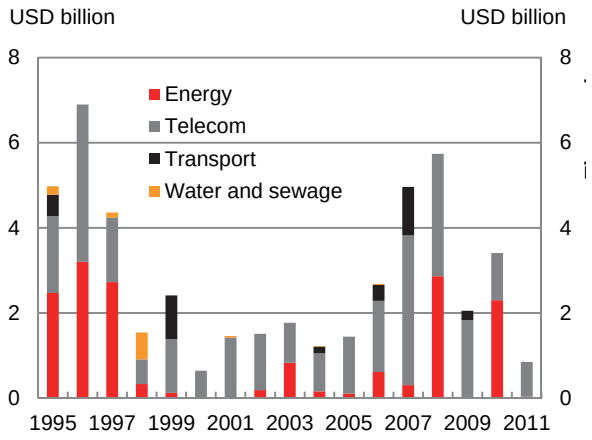
SOEs continue to be an important source of infrastructure investment…

Though data on infrastructure investment by SOEs are scarce, the available data show that SOEs remain an important player in delivering infrastructure investment. Their contribution to total investment has remained relatively stable, moving from 36 percent in 1995-1997 to 30 percent in 2010-2011. SOE investment dropped significantly following the Asian crisis, and increased marginally between 2001-2006. As mentioned above, SOE investment rose markedly over 2007 to 2009 driven by significant capital expenditure by PLN to support the implementation of the 10,000MW fast track program. However, SOEs' infrastructure investment then dropped off, in part likely reflecting financial constraints after the 2008/2009 global financial crisis.

…but the role of private sector investment has fallen off sharply

The contribution of the private sector to total infrastructure investment in Indonesia shrank to only 10 percent in 2010-2011 from almost one-third in 1995-1997. This is also reflected in nominal investment value which has fallen off to below USD 2 billion, except in 2007 and 2008, This trend likely partly reflects the regulatory and institutional challenges that Indonesia is facing in attracting Public Private Partnerships (PPP) (see the June 2011 *IEQ* for a discussion of the challenges and opportunities presented by Indonesia's PPP agenda). By sector, the biggest fall in private investment has been in the energy sector (except in 2008 and 2010). Meanwhile,

Figure 54: Private sector infrastructure investment in Indonesia has fallen off since 2008
(private sector infrastructure investment, USD billion)



Source: World Bank PPI Database

energy fell dramatically, by 63 percent, despite strong increases in 2008 and 2010 as did telecommunications (down 69 percent). This sharp fall in the energy and telecommunication sectors in 2010-11 more than accounts for the entire fall in real infrastructure investment.

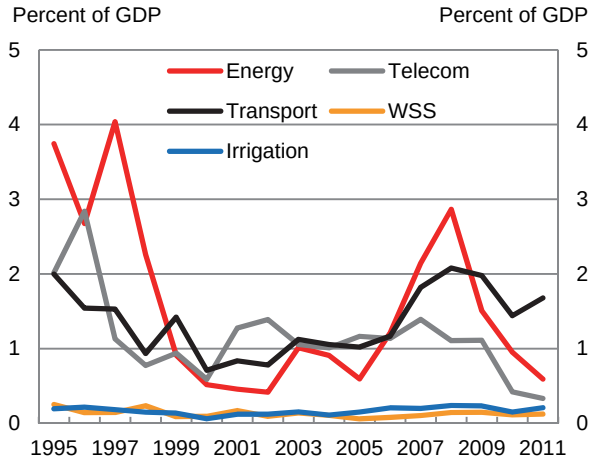
Within the decline in overall infrastructure investment, the share of the transport sector has risen significantly, with energy falling off somewhat

Although total infrastructure investment is down by nearly 30 percent in real terms between 1995-97 and 2010-11, some sectors showed a strong increase. These were mainly those sectors where the public sector plays a leading role, such as transport (real investment up by almost 60 percent), irrigation (62 percent), and water and sanitation (16 percent) (Figure 55). To place these increases in context, however, it is worth noting that over this same period real GDP grew by over 50 percent. Meanwhile, energy fell dramatically, by 63 percent, despite strong increases in 2008 and 2010. as did telecommunications (down 69 percent). This sharp fall in energy and the telecommunication sector in 2010-11 more than accounts for the entire fall in real infrastructure investment.

The transport sector, and particularly roads, has accounted for an increasing share of infrastructure investment

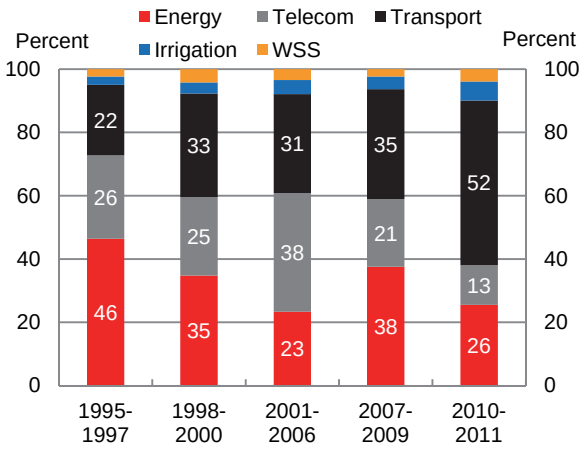
The transport sector has seen a relatively steady build up in its share of total infrastructure investment from 20 percent in 1995-1997 to more than half in 2010-2011 (Figure 56). However, this has been mainly driven by sub-national road investment. According to recent analysis by the World Bank, the length of district's road has increased by one third between 2001 and 2009 from 287,577 km in 2001 to 384,810 km in 2009.[18] However, there are a number of efficiency concerns related to this spending, such as an insufficient level of operation and maintenance spending, and institutional fragmentation leading to new road investment that does not lie within an integrated transportation network, and sub-standard design and road quality. In contrast to sub-national road building, toll road development has been exceedingly slow due to implementation challenges. The length of toll-roads has barely increased in recent years, at 742 km by 2010 (less than a third of the target set in the Ministry of Public Work Strategic Plan of 2,400 km).

Figure 55: After recovering over 2007 to 2009 energy sector infrastructure has fallen off, as has that in telecoms,…
(infrastructure investment as share of GDP, percent)



Note: WSS is water supply and sanitation
Source: BPS; infrastructure investment data as detailed in Box 5 and World Bank staff calculations

Figure 56: …but investment in transport infrastructure has risen, recently accounting for one half of total investment
(share of total infrastructure investment, percent)



Source: Infrastructure investment data as detailed in Box 5 and World Bank staff calculations

Irrigation and water supply and sanitation investment have increased but remain relatively small

Irrigation and water and sanitation represent relatively small shares of total infrastructure investment, driven largely by government spending. The investment share going to irrigation has showed a moderate increase, while the share of water and sanitation has been stable, which may reflect the lack of information on sub-national investment from PDAMs.

[18] The World Bank, 2012,"Investing in Indonesia's Roads: Improving efficiency and closing the financing gaps"

c. Linking infrastructure, growth and development outcomes

The failure to keep up with infrastructure investment is likely already impacting Indonesia's growth and development outcomes

Extensive research finds that infrastructure investment has a significantly positive impact on long-term economic growth. Infrastructure increases productivity and attracts business activity by lowering transport and production costs and facilitating market access. Well-functioning infrastructure enables the population to better access key services and economic opportunities, enhances firms' productivity and competitiveness, stimulates domestic and foreign investment, integrates domestic markets and connects them at low cost to markets in other countries. The failure to sustain an appropriate level of infrastructure investment can be a significant drag on growth and development outcomes.

Infrastructure investment needs are substantial, even simply for maintaining the existing infrastructure stock

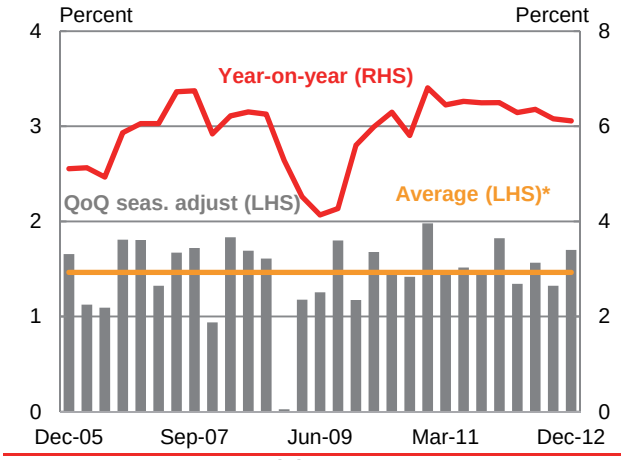
How much have the trends in Indonesia's infrastructure investment impacted economic growth over the past and future decade? This complex question is beyond the scope of this section but there are some key points that are worth highlighting in the context of these new data. First, the growth pay-offs to more infrastructure investment can be sizeable. Recent OECD empirical research which examines the link between infrastructure investment (including repairs and maintenance) and GDP performance reveals that physical infrastructure investment can boost long-term economic output more than other kinds of physical investment.[19] As an example, the estimated infrastructure elasticity of output in China is in the range of 0.20 to 0.41—that is, a 10 percent increase in the infrastructure stock is associated with a two to 4.1 percent increase in GDP growth.[20] Second, while much of the focus is on the level of infrastructure investment, there should also be an emphasis on the quality and efficiency of this investment, including the allocation of spending across different types of infrastructure. Third, it is not just new investment that counts but how existing infrastructure assets are maintained to extend their life and quality. Otherwise, a substantial level of gross investment is needed just to cover depreciation of, let alone increase, the infrastructure capital stock.

[19] D. Sutherland, S. Araújo, B. Égert and T. Kozluk, 2009, "Infrastructure investment: links to growth and the role of public policies", OECD Working Paper No. 686

[20] Sahoo and Nataraj, 2010, "Infrastructure development and economic growth in China", Institute of Developing Economies

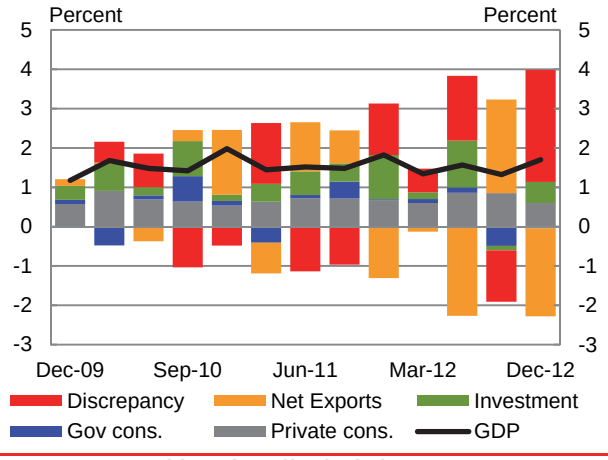
APPENDIX: A SNAPSHOT OF INDONESIAN ECONOMIC INDICATORS

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



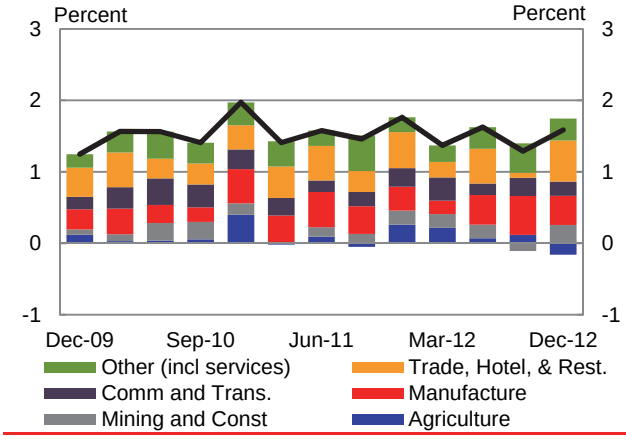
Note: *Average QoQ growth between Q4 2002 – Q4 2012
Source: BPS; World Bank seasonal adjustment

Appendix Figure 2: Contributions to GDP expenditures
(contribution to quarter-on-quarter seasonally-adjusted real GDP growth, percent)



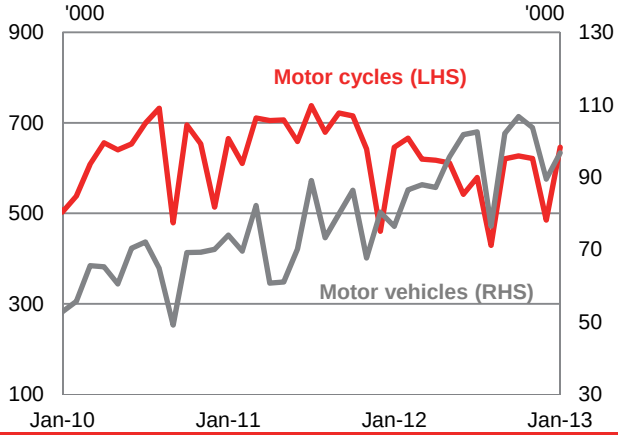
Source: BPS; World Bank staff calculations

Appendix Figure 3: Contributions to GDP production
(contribution to quarter-on-quarter seasonally-adjusted real GDP growth, percent)



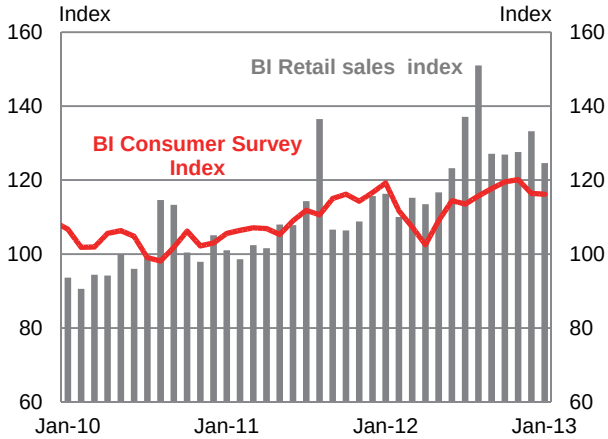
Source: BPS; World Bank staff calculations

Appendix Figure 4: Motor cycle and motor vehicle sales
(monthly sales)



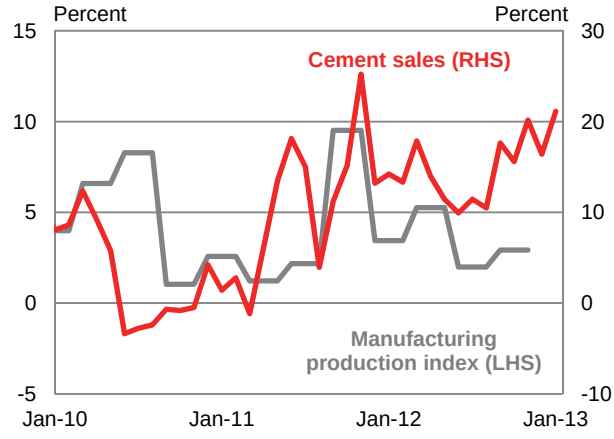
Source: CEIC

Appendix Figure 5: Consumer indicators
(index levels)



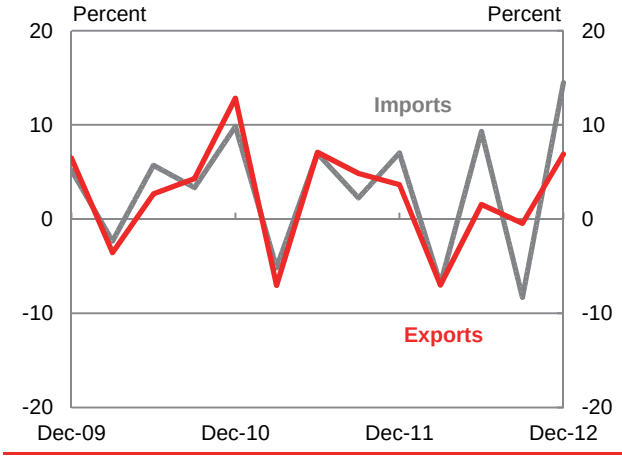
Source: BI

Appendix Figure 6: Industrial production indicators
(3 month average, year-on-year growth, percent)



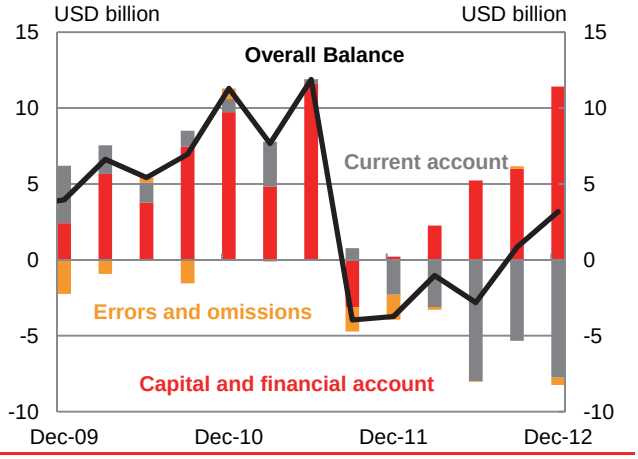
Source: CEIC

Appendix Figure 7: Real trade flows
(quarter-on-quarter real growth, percent)



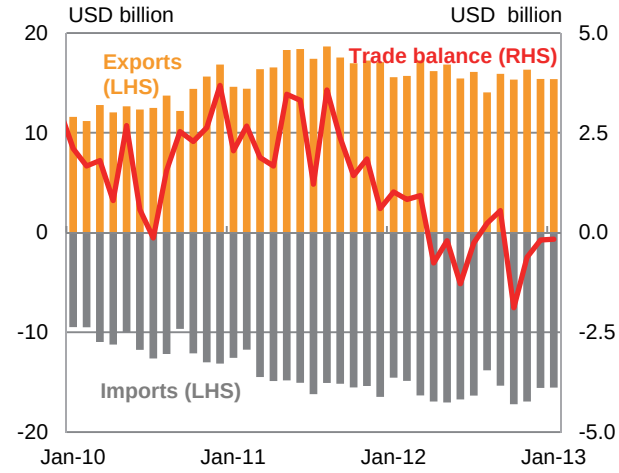
Source: BPS

Appendix Figure 8: Balance of payments
(USD billion)



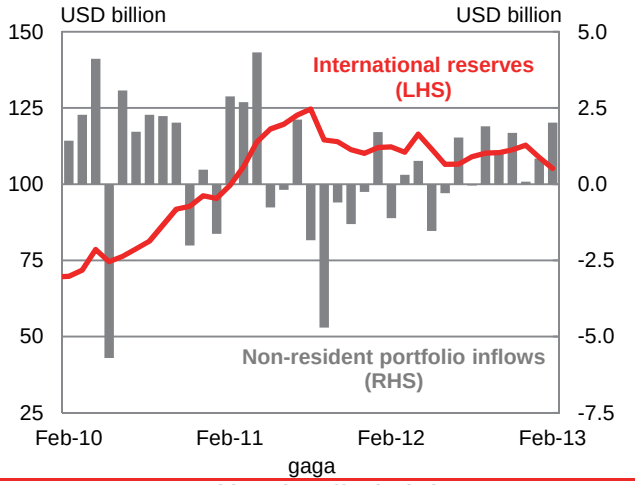
Source: BI

Appendix Figure 9: Goods trade balance
(USD billion)



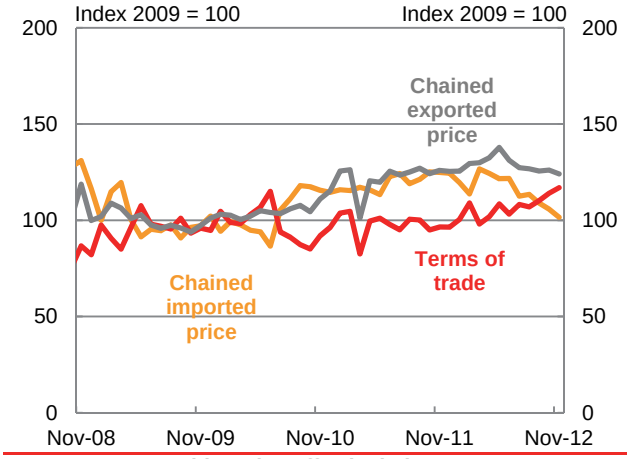
Source: BPS

Appendix Figure 10: Reserves and capital inflows
(USD billion)



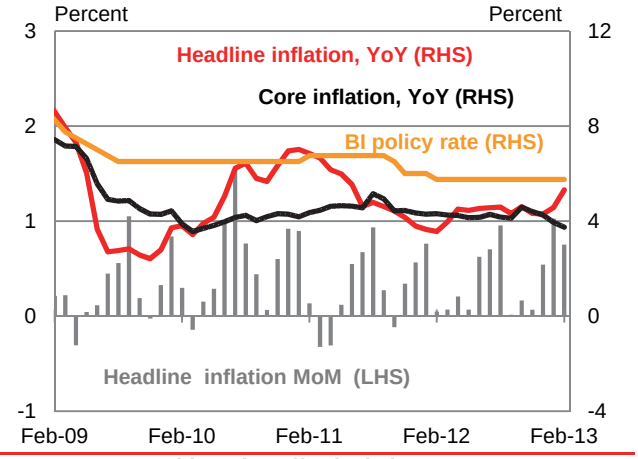
Source: BI; CEIC; World Bank staff calculations

Appendix Figure 11: Terms of trade and export and import chained-Fisher price indices
(index 2009=100)



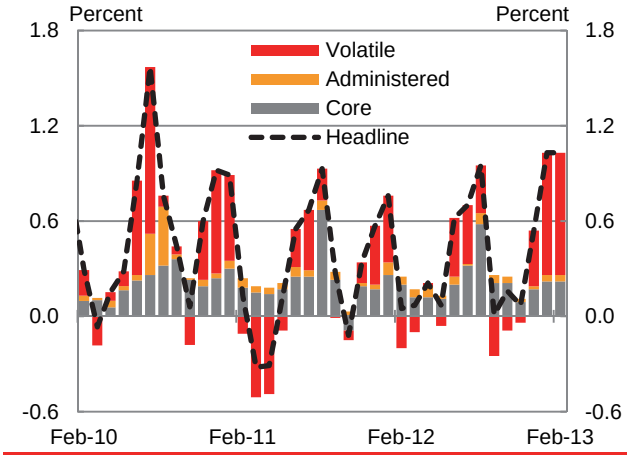
Source: BPS; World Bank staff calculations

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



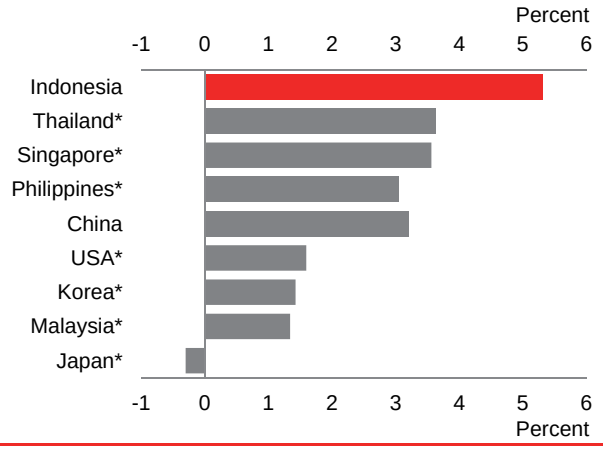
Source: BPS; World Bank staff calculations

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



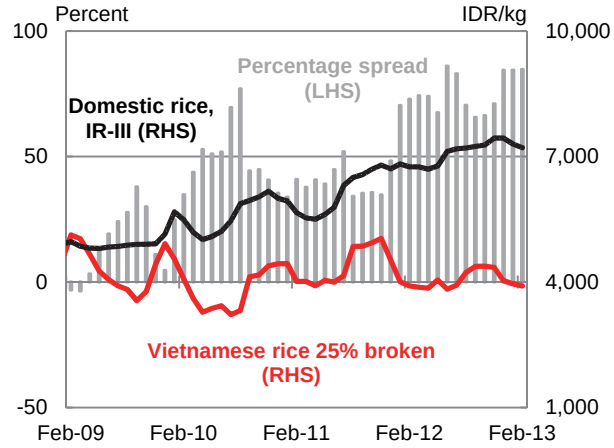
Source: BPS; World Bank staff calculations

Appendix Figure 14: Inflation comparison across countries
(year-on-year, February 2012)



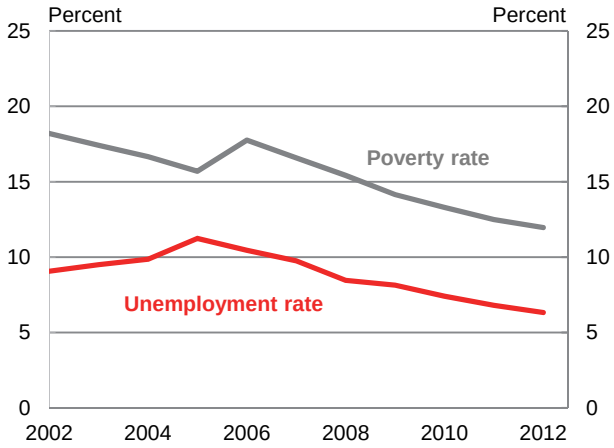
*January is latest available month
Source: National statistical agencies via CEIC; BPS

Appendix Figure 15: Domestic and international rice prices
(Wholesale price, in IDR per kg)



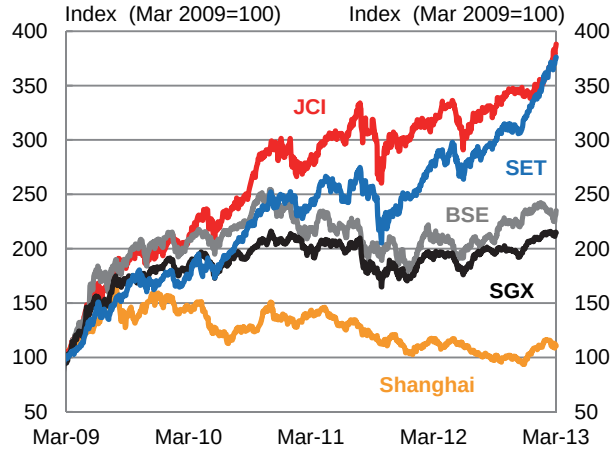
Note: Dashed: international Thai rice (cif) prices.
Solid: domestic wholesale rice
Source: PIBC; FAO; World Bank

Appendix Figure 16: Poverty and unemployment rate
(percent)



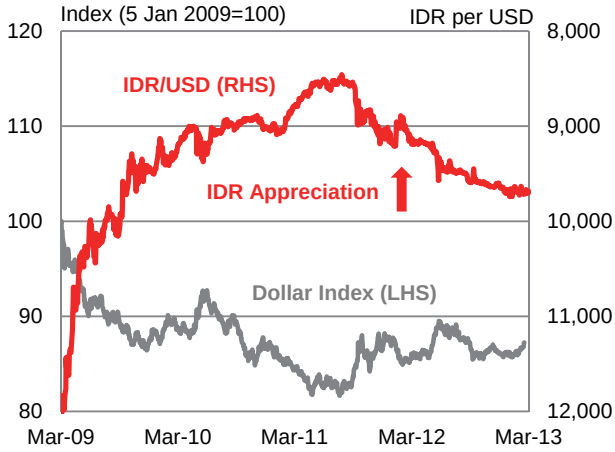
Note: Labor data from February Sakernas
Source: BPS

Appendix Figure 17: Regional equity indices
(daily, index January 2009=100)



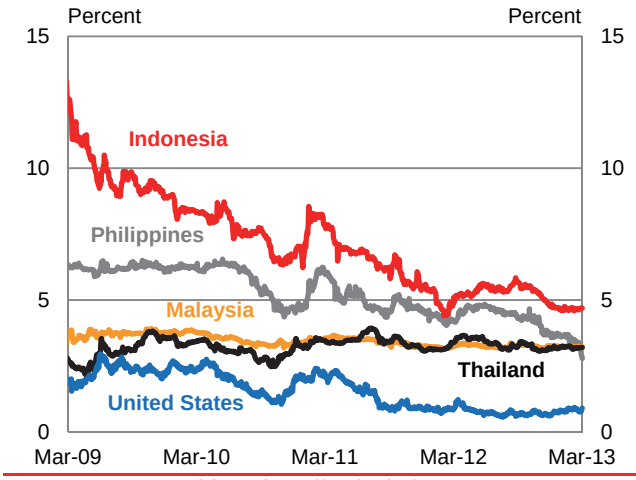
Source: CEIC; World Bank staff calculations

Appendix Figure 18: Dollar index and Rupiah exchange rate
(daily, index and levels)



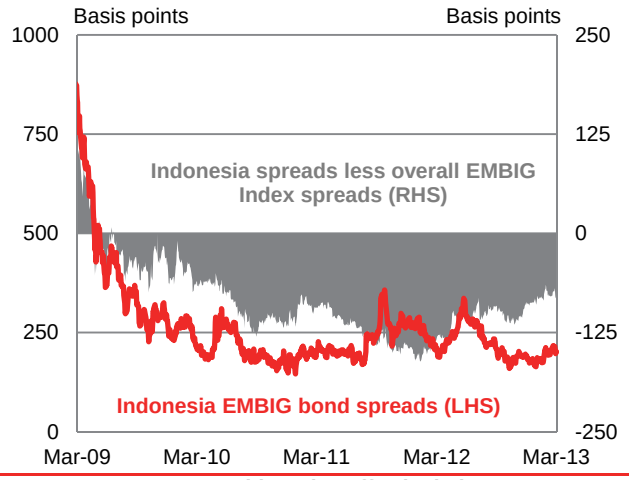
Source: CEIC; World Bank staff calculations

Appendix Figure 19: 5-year local currency government bond yields
(daily, percent)



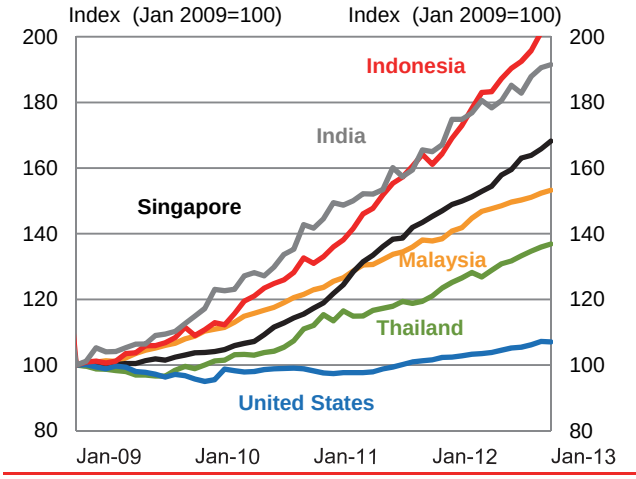
Source: CEIC; World Bank staff calculations

Appendix Figure 20: Sovereign USD Bond EMBI spreads
(daily, basis points)



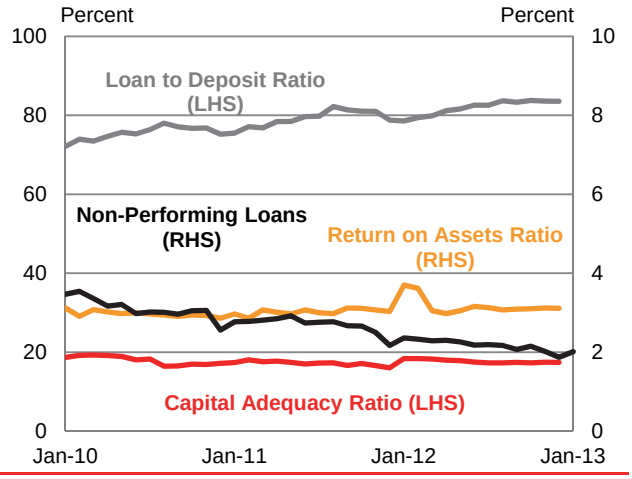
Source: JP Morgan; World Bank staff calculations

Appendix Figure 21: International commercial bank lending
(monthly, index January 2009=100)



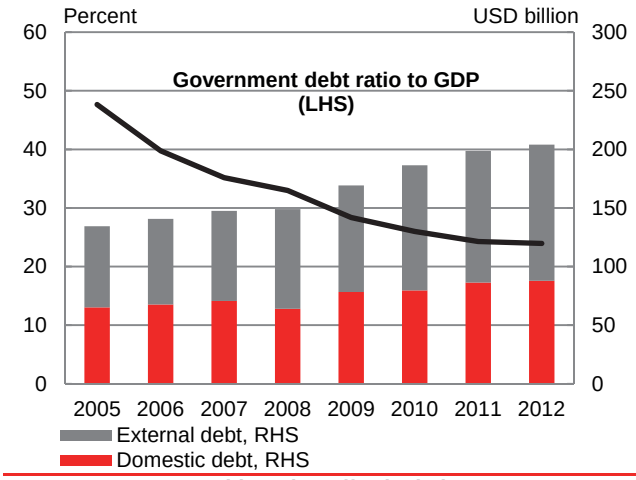
Source: CEIC; World Bank staff calculations

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



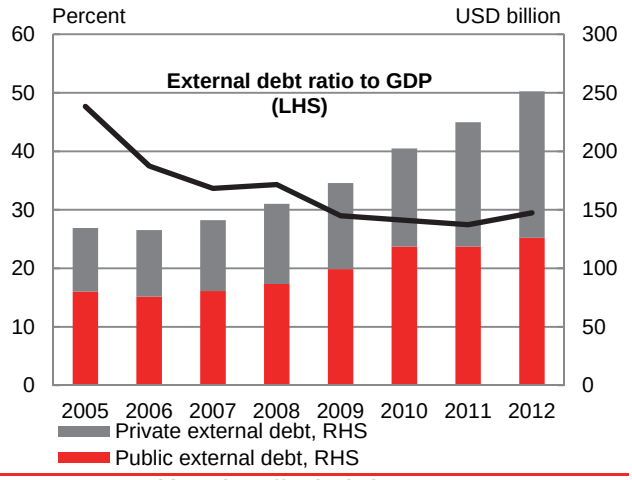
Source: BI

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



Source: MoF; BI; World Bank staff calculations

Appendix Figure 24: External debt
(percent of GDP; USD billion)



Source: BI; World Bank staff calculations

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

	2009	2010	2011	2012	2013
	Outcome	Outcome	Outcome	Preliminary outcome	Budget
A. State revenue and grants	**849**	**995**	**1,211**	**1,336**	**1,530**
1. Tax revenue	620	723	874	980	1,193
2. Non-tax revenue	227	269	331	352	332
B. Expenditure	**937**	**1,042**	**1,295**	**1,482**	**1,683**
1. Central government	629	697	884	1,001	1,154
2. Transfers to the regions	309	345	411	480	529
C. Primary balance	**5**	**42**	**9**	**-46**	**-40**
D. SURPLUS / DEFICIT	-89	-47	-84	-146	-153
(percent of GDP)	-1.6	-0.7	-1.1	-1.8	-1.7

Source: MoF

Appendix Table 2: Balance of Payments
(USD billion)

				2011				2012			
	2009	2010	2011	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Balance of Payments	**12.5**	**-30.3**	**-11.9**	**-7.7**	**-11.9**	**4.0**	**3.7**	**1.0**	**2.8**	**-0.8**	**-3.2**
Percent of GDP	2.3	-4.3	-1.4	-3.9	-5.6	1.8	1.7	0.5	1.3	-0.4	-1.5
Current Account	**10.6**	**5.1**	**1.7**	**2.9**	**0.3**	**0.8**	**-2.3**	**-3.1**	**-8.0**	**-5.3**	**-7.8**
Percent of GDP	2.0	0.7	0.2	1.5	0.1	0.3	-1.1	-1.4	-3.7	-2.4	-3.6
Trade Balance	21.2	21.3	24.2	7.4	6.1	7.1	3.5	1.7	-2.1	0.7	-2.7
Net Income & Current Transfers	-10.6	-16.2	-22.5	-4.5	-5.8	-6.4	-5.8	-4.8	-5.9	-6.1	-5.0
Capital & Financial Accounts	**4.9**	**26.6**	**13.6**	**4.8**	**11.6**	**-3.1**	**0.2**	**2.3**	**5.2**	**6.0**	**11.4**
Percent of GDP	0.9	3.8	1.6	2.4	5.5	-1.4	0.1	1.0	2.4	2.7	5.2
Direct Investment	2.6	11.1	11.5	3.8	2.5	2.1	3.1	1.6	4.0	4.3	4.5
Portfolio Investment	10.3	13.2	3.8	2.9	5.2	-4.6	0.2	2.6	3.9	2.5	0.2
Other Investment	-8.2	2.3	-1.8	-1.9	3.9	-0.7	-3.2	-2.0	-2.7	-0.8	6.7
Errors & Omissions	**-3.0**	**-1.5**	**-3.4**	**-0.1**	**0.0**	**-1.6**	**-1.6**	**-0.2**	**-0.1**	**0.2**	**-0.5**
Foreign Reserves*	**66.1**	**96.2**	**110.1**	**105.7**	**119.7**	**114.5**	**110.1**	**110.5**	**106.5**	**110.2**	**112.8**

Note: *Reserves at end-period
Source: BI; BPS

Appendix Table 3: Indonesia's historical macro-economic indicators at a glance

	1990	1995	2000	2005	2010	2011	2012
National Accounts (% change)[1]							
Real GDP	9.0	8.4	4.9	5.7	6.2	6.5	6.2
Real investment	25.3	22.6	11.4	10.9	8.5	8.8	9.8
Real consumption	23.2	21.7	4.6	4.3	4.1	4.5	4.8
Private	23.9	22.7	3.7	0.9	4.7	4.7	5.3
Government	18.8	14.7	14.2	6.6	0.3	3.2	1.2
Real exports, GNFS	22.5	18.0	30.6	16.6	15.3	13.6	2.0
Real imports, GNFS	30.2	29.6	26.6	17.8	17.3	13.3	6.6
Investment (% GDP)	28.3	28.4	19.9	23.6	32.0	32.0	33.2
Gross domestic savings (% GDP)	32.3	30.6	31.8	27.5	34.4	36.4	36.6
Nominal GDP (USD billion)	114	202	165	286	709	846	878
GDP per capita (USD)	636	1035	804	1,300	2,984	3,498	3,563
Central Government budget (% GDP)[1]							
Revenue and grant	18.8	15.2	20.8	17.8	15.5	16.3	16.2
Non-tax revenue	1.0	4.8	9.0	5.3	4.2	4.5	4.3
Tax revenue	17.8	10.3	11.7	12.5	11.3	11.8	11.9
Expenditure	11.8	13.9	22.4	18.4	16.2	17.4	18.0
Consumption	..	3.9	4.0	3.0	3.8	4.0	4.1
Capital	..	4.6	2.6	1.2	1.3	1.6	1.7
Interest	..	1.4	5.1	2.3	1.4	1.3	1.2
Subsidies	..	..	6.3	4.3	3.0	4.0	4.2
Budget balance	0.4	1.3	-1.6	-0.6	-0.7	-1.1	-1.8
Government debt	41.9	32.3	97.9	47.6	26.0	24.3	23.9
o/w external government debt	41.9	32.3	51.4	22.3	9.5	8.3	7.4
Total external debt (including private sector)	61.0	61.5	87.1	47.7	28.2	27.5	29.5
Balance of Payments (% GDP)[3]							
Overall balance of payments	..	..	..	0.2	-4.3	-1.4	0.0
Current account balance	-2.6	3.2	4.8	0.1	0.7	0.2	-2.8
Exports GNFS	25.6	26.2	42.8	35.2	24.6	26.2	24.1
Imports GNFS	24.0	26.9	33.9	32.2	21.6	23.3	24.4
Trade balance	1.6	-0.8	8.9	3.0	3.0	2.9	-0.3
Financial account balance	..	..	..	0.0	3.7	1.6	2.8
Net FDI	1.0	2.2	-2.8	1.9	1.6	1.4	1.6
Gross official reserves (USD billion)	8.7	14.9	29.4	34.7	96.2	110.1	112.8
Monetary (% change)[3]							
GDP deflator[1]	7.7	9.9	20.4	14.3	8.3	8.1	4.5
Bank Indonesia interest key rate (%)	..	..	..	9.1	6.5	6.6	5.8
Domestic credit	..	..	..	28.7	17.5	24.4	24.2
Nominal exchange rate (average, IDR/USD)[4]	1,843	2,249	8,422	9,705	9,090	8,770	9,387
Prices (% change)[1]							
Consumer price Index (eop)	9.9	9.0	9.4	17.1	7.0	3.8	4.3
Consumer price Index (average)	7.7	9.4	3.7	10.5	5.1	5.4	4.3
Poverty basket inflation (average)	..	..	..	10.8	8.7	8.2	6.5
Indonesia crude oil price (USD per barrel)[5]	..	17	28	53	79	112	113

Source: [1] BPS and World Bank staff calculation; [2] MoF and World Bank staff calculation (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

	1990	1995	2000	2005	2010	2011	2012
Demographics[1]							
Population (million)	184	199	213	227	240	242	..
Population growth rate (%)	1.7	1.5	1.3	1.2	1.0	1.0	..
Urban population (% of total)	30.6	35.6	42.0	45.9	49.9	50.7	..
Dependency ratio (% of working-age population)	67.3	60.8	54.7	51.2	48.3	47.8	..
Labor Force[2]							
Labor force, total (million)	75	84	98	106	117	117	118
Male	46	54	60	68	72	72	73
Female	29	31	38	38	45	45	45
Agriculture share of employment (%)	55	43	45	44	38	36	35
Industry share of employment (%)	14	19	17	19	19	21	22
Services share of employment (%)	31	38	37	37	42	44	43
Unemployment, total (% of labor force)	2.5	7.0	8.1	11.2	7.1	6.6	6.1
Poverty and Income Distribution[3]							
Median household consumption (IDR 000)	..	..	104	211	374	421	446
National poverty line (IDR 000)	..	..	73	129	212	234	249
Population below national poverty line (million)	..	..	38	35	31	30	29
Poverty (% of population below national poverty line)	..	..	19.1	16.0	13.3	12.5	12.0
Urban (% of population below urban poverty line)	..	..	14.6	11.7	9.9	9.2	8.8
Rural (% of population below rural poverty line)	..	..	22.4	20.0	16.6	15.7	15.1
Male-headed households	..	..	15.5	13.3	11.0	10.2	9.5
Female-headed households	..	..	12.6	12.8	9.5	9.7	8.8
Gini index	..	..	0.30	0.35	0.38	0.41	0.41
Percentage share of consumption: lowest 20%	..	..	9.6	8.7	7.9	7.4	7.5
Percentage share of consumption: highest 20%	..	..	38.6	41.4	43.5	46.5	46.7
Public expenditure on social security & welfare (% of GDP)[4]	..	..	..	4.4	3.9	3.9	4.2
Health and Nutrition[1]							
Child malnutrition (% of children under 5)	..	27	25	24	18	..	..
Under five mortality rate (per 1000 children under 5 year)[5]	98	..	46	..	44	..	..
Neonatal mortality rate (per 1000 live births)[5]	27	..	..	..	19	..	..
Infant mortality (per 1000 live births)[5]	67	..	35	..	34	..	..
Maternal mortality ratio (estimate, per 100,000 live births)	600	420	340	270	220	..	..
Skilled birth attendance (% of total births)	36	..	66	..	82	..	..
Measles vaccination (% of children under 1 year)	0	..	72	..	76	..	..
Total health expenditure (% of GDP)	..	1.8	2.0	2.1	2.6	..	..
Public health expenditure (% of GDP)	..	0.6	0.7	1.0	1.3	..	..
Education[3]							
Primary net enrollment rate, (%)	..	..	..	92	92	92	93
Female (% of total net enrolment)	..	..	..	48	48	49	49
Secondary net enrollment rate, (%)	..	..	..	52	61	60	60
Female (% of total net enrolment)	..	..	..	50	50	50	49
Tertiary net enrollment rate, (%)	..	..	..	9	16	14	15
Female (% of total net enrolment)	..	..	..	55	53	50	54
Adult literacy rate (%)	..	..	..	91	91	91	92
Public spending on education (% of GDP)[4]	..	..	..	2.7	3.4	3.5	3.5
Public spending on education (% of spending)[4]	..	..	..	14.5	19.7	19.8	18.9
Water and Sanitation[1]							
Access to an improved water source (% of population)	70	74	78	80	82	..	..
Urban (% of urban population)	91	91	91	91	92	..	..
Rural (% of rural population)	61	65	68	71	74	..	..
Access to improved sanitation facilities (% of population)	32	38	44	50	54	..	..
Urban (% of urban population)	56	60	64	69	73	..	..
Rural (% of rural population)	21	26	30	35	39	..	..
Others[1]							
Disaster risk reduction progress score (1-5 scale; 5=best)	..	..	..	..	..	3.3	..
Seats held by women in national parliament (% of total)[6]	..	..	8.0	11.3	18.0	18.2	18.6

Source: [1] World Development Indicators; [2] BPS (Sakernas); [3] BPS (Susenas) and World Bank; [4] MoF and World Bank staff calculation comprising spending on Raskin, Jamkesmas, BLT, BSM, PKH and actuals (except 2012 which is from revised budget); [5] Indonesia Demographic and Health Survey; [6] Inter-Parliamentary Union.

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