

# FINANCING DEVELOPMENT WITH FOSSIL FUEL SUBSIDIES:

THE REALLOCATION OF INDONESIA'S  
GASOLINE AND DIESEL SUBSIDIES IN 2015

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Global Subsidies  
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## LIST OF ACRONYMS

<b>APEC</b>	Asia-Pacific Economic Cooperation
<b>BATAN</b>	Badan Tenaga Nuklir Nasional
<b>BPK</b>	Badan Pemeriksa Keuangan
<b>CGE</b>	Computable general equilibrium
<b>CSO</b>	Civil society organizations
<b>DAK</b>	Dana Alokasi Khusus (Specific Allocation Fund)
<b>DAU</b>	Dana Alokasi Umum (General Allocation Fund).
<b>DBH</b>	Dana Bagi Hasil (Revenue Sharing Fund).
<b>DD</b>	Dana Desa (Village Fund)
<b>DPR</b>	Indonesian House of Representatives
<b>FITRA</b>	Indonesia Forum for Budget Transparency
<b>ICP</b>	International crude oil price
<b>ICW</b>	Indonesia Corruption Watch
<b>IDRC</b>	International Development Research Centre
<b>IDX</b>	Indonesian Stock Exchange
<b>IISD</b>	International Institute for Sustainable Development
<b>IO</b>	Input-output
<b>LIPI</b>	Lembaga Ilmu Pengetahuan Indonesia (Indonesian Science and Research Authority)
<b>LPEM</b>	Institute for Economic and Social Research (LPEM) at University of Indonesia
<b>LPG</b>	Liquefied petroleum gas
<b>MOPS</b>	Mid Oil Platts Singapore
<b>MRT</b>	Metro Rapid Transit
<b>NGV</b>	Natural gas vehicle
<b>PKH</b>	Program Keluarga Harapan (Hopeful Family Program)
<b>PKPPM</b>	Centre for Climate Change and Multilateral Financing Policy
<b>PLN</b>	Perusahaan Listrik Negara (state electricity company)
<b>RPJMN</b>	Rencana Pembangunan Jangka Menengah Nasional (National Medium-Term Development Plan)
<b>SBY</b>	Susilo Bambang Yudhoyono
<b>SME</b>	Small and medium-sized enterprises
<b>SOE</b>	State-owned enterprises

## EXECUTIVE SUMMARY

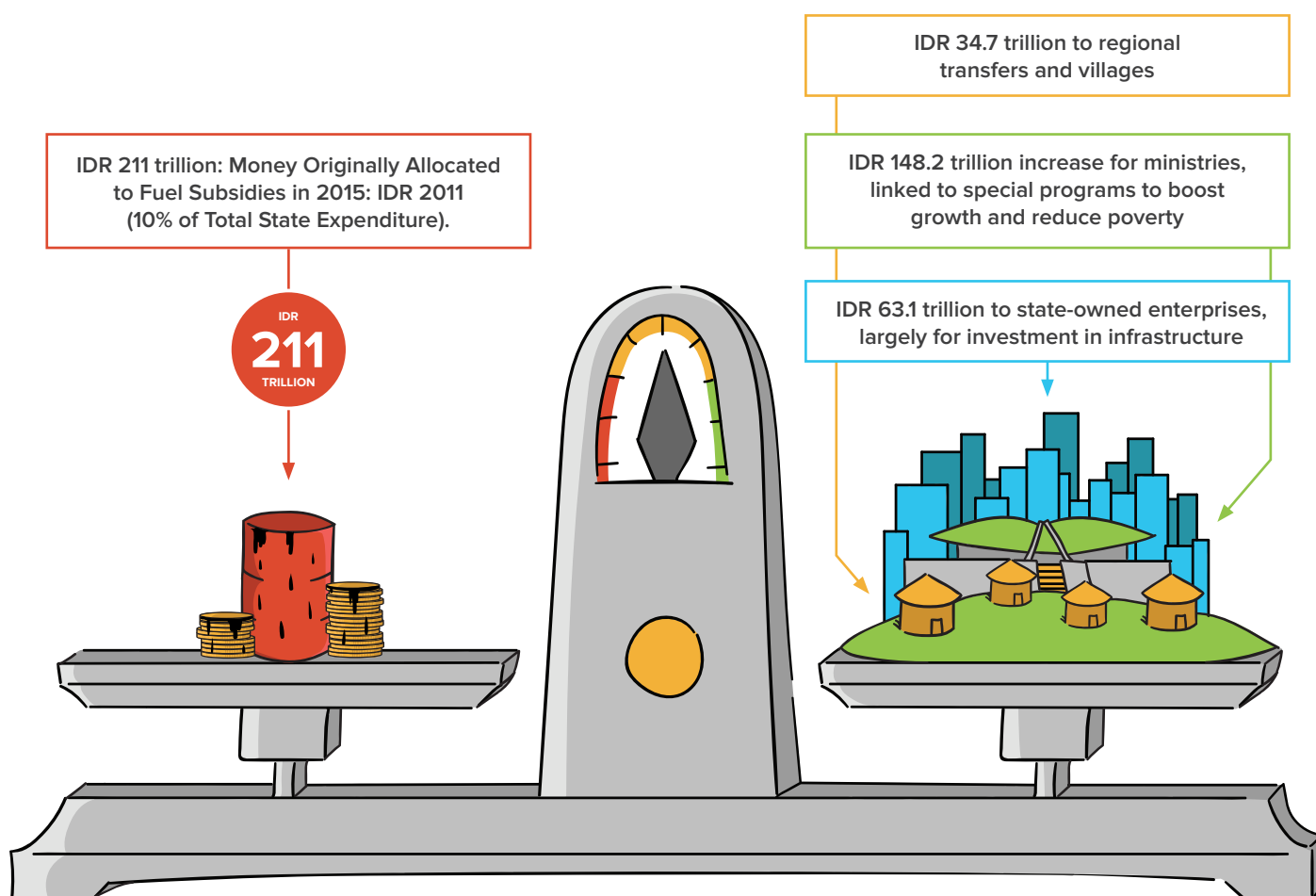
At the very end of December 2014, Indonesia introduced major reforms to its fossil fuel subsidies: removing subsidies to gasoline, except for distribution costs outside of the central islands of Java, Bali and Madura and introducing a “fixed” subsidy of IDR 1,000 per litre for diesel. At the same time, world oil prices plummeted. Together, these changes led to massive fiscal savings, equal to IDR 211 trillion (US\$ 15.6 billion): over 10 per cent of state expenditure. This study investigates two central questions: Where were these savings reallocated? And is the new expenditure doing a better job for Indonesia’s development than subsidies? It concludes that fuel subsidy reform and reallocation in Indonesia have been a major step forward in improving public expenditure.

### HOW WERE FUEL SUBSIDIES REALLOCATED?

When budgetary savings are created in Indonesia, such as through subsidy reforms or falling international oil prices, there is no mechanism whereby a reduction in one area is clearly matched with an increase in expenditure in another area. For this reason, there is no precise way to track exactly how subsidies were reallocated. For 2015, however, one state budget was drawn up before subsidy reforms (SB-2015) and another state budget—Revised State Budget 2015 (RSB-2015)—was drawn up quickly after reforms. This creates a natural benchmark for comparing how fiscal resources might be allocated in a year with and a year without subsidies.

In RSB-2015, there were marked increases in expenditure in three main areas: an IDR 148 trillion (USD 10.1 billion) increase in ministries’ budgets, much of this supporting “special programs” on human and economic development; an IDR 61 trillion (USD 4.5 billion) “capital injection” to state-owned enterprises with a focus on infrastructure; and an IDR 34 trillion (USD 2.5 billion) increase in transfer funds to regions and villages. While to some extent these reflect the different priorities of the newly inaugurated Jokowi administration, and there were also some other major fluctuations in other areas (including plans for a net decrease in revenue, expenditure and the deficit) it is reasonable to assert that fuel subsidy savings must have played a large role in enabling 2015’s fiscal reprioritization in these three areas.

**Fuel subsidy savings in 2015 allowed to major investments in social welfare and infrastructure through increased budgets for ministries, state-owned enterprises and transfers for regions and villages.**



**Figure ES1. Fuel Subsidy Savings and Major Increases in Expenditure in Revised State Budget 2015**

Source: Authors, based on data from State Budget documents (various), Bank Indonesia<sup>4</sup> and IMF.<sup>5</sup>

## HOW WELL WAS REALLOCATION ALIGNED WITH INDONESIA'S DEVELOPMENT PRIORITIES?

A large share of the savings from reform were allocated to investment—in people to reduce poverty and inequality through ministries and transfer funds, and in infrastructure to drive the economy through ministries, SOEs and transfer funds. This makes it hard to evaluate the impacts of reforms. Fuel subsidies promote consumption, which has an immediate but short-term effect. Reallocation to investment takes time to implement, but should provide an ongoing stream of benefits for years to come. A preliminary attempt was therefore made to project some of the likely impacts of planned reallocation.

- **Policy alignment:** How well reallocation matched up to Indonesia's official planning on development priorities, as set out by the National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*, or RPJMN) 2015–2019.
- **Input-output Analysis:** The use of a simple economic model (and input-output matrix) to project impacts of reallocation on GDP and jobs.
- **Fiscal risk:** An assessment of how much more or less vulnerable budgetary planning would be, after reform, to unexpected increases or decreases in expenditure.

## THE FINDINGS WERE AS FOLLOWS:

### POLICY ALIGNMENT



Higher spending on infrastructure contributes to RPJMN targets on economic growth and middle-income status.



Higher allocation to transfer funds contributes to RPJMN targets on reducing poor villages and increasing village self-sufficiency.



Higher allocation to infrastructure, villages and social programs is aligned with RPJMN targets on poverty reduction and access to basic needs like water, sanitation and lighting.

### INPUT-OUT ANALYSIS



The sectors that have received extra funding tend to stimulate the rest of the economy more than low-cost oil products. As a result, reallocation is likely to generate higher GDP and more jobs than fuel subsidies. Because this is through investments in productive capacity, it is likely to take until the medium term to have full effect.



Key sectors that are likely to see the greatest benefit from subsidy reallocation are services, manufacturing, construction, agriculture, and transport and communications.

### FISCAL RISK



World oil prices and exchange rates were anticipated to have less influence on the budget following reallocation, with a reversal of recent dynamics anticipated; i.e., in RSB-2015, higher world oil prices would increase revenue more than expenditure, contributing to a smaller deficit instead of a larger one. In SB-2015, the same change would have increased the deficit.



Historical data show that the cost of fuel subsidies is directly linked to oil prices, exchange rates and levels of oil production. After reallocation, subsidy costs are less volatile and easier to predict.

## RECOMMENDATIONS

The research team also consulted with government officials and experts from civil society organizations who specialize in budgetary accountability. While most experts approved of the subsidy reallocation plan, they helped to identify a number of recommendations for ways in which hoped-for future reallocation of subsidies—such as Indonesia’s remaining subsidies for liquefied petroleum gas (LPG) and electricity—could be made stronger.

- ▶ **The importance of consultation, communications, transparency and accountability.** A major budget reallocation like the fuel subsidy reform is a rare opportunity for significant fiscal reprioritization. Consulting and communicating on reallocation can help set the agenda and build trust. Following this, it is necessary to have some kind of transparent system to monitor and report on what has been achieved in place of subsidies. This is because there will likely be pressure for subsidy reintroduction in the near future, when world oil prices begin to rise again. Accountability mechanisms should establish what can and has been done in a year, and also over the medium term, with lower spending on subsidies.
- ▶ **Consider investing in clean energy alternatives.** One area that appears to have seen little emphasis in the government’s reallocation plans is the energy sector. Indonesia’s current plan for expanding power generation is highly reliant on coal, despite its local and global social and environmental costs. The removal of polluting fuel subsidies is an opportunity to invest in clean and alternative forms of energy.
- ▶ **Invest in government capacity.** Savings can be invested in the government’s ability to deliver quality expenditure, including its planning, coordination, rules around procurement, institutional capacity and culture in strategy and implementation. Taking steps to improve quality in this way can also serve to improve confidence that reallocation will result in its targeted objectives.

## THOUGHTS AND FEEDBACK

The Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD) is an independent, research-driven initiative, focused on how subsidies can undermine or support sustainable development. Through technical analysis, policy dialogue and communication with stakeholders in international processes and individual countries, the GSI’s aim is to bring about transformative change in the implementation of subsidy reform—making it work for development that is effective, efficient and sustainable.

This publication is one of the first attempts to document and evaluate the reallocation of savings from a major subsidy reform. All thoughts and feedback are highly welcome and should be directed to [cbeaton@iisd.org](mailto:cbeaton@iisd.org).



# 1. INTRODUCTION

In late 2014, President Joko Widodo (“Jokowi”) reformed Indonesia’s gasoline and diesel subsidies at the same time that world oil prices fell. As a result, Revised State Budget 2015 saved IDR 211 trillion (USD 15.6 billion) on fossil fuel subsidies<sup>1</sup>—equal to 10.6 per cent of all government expenditure.

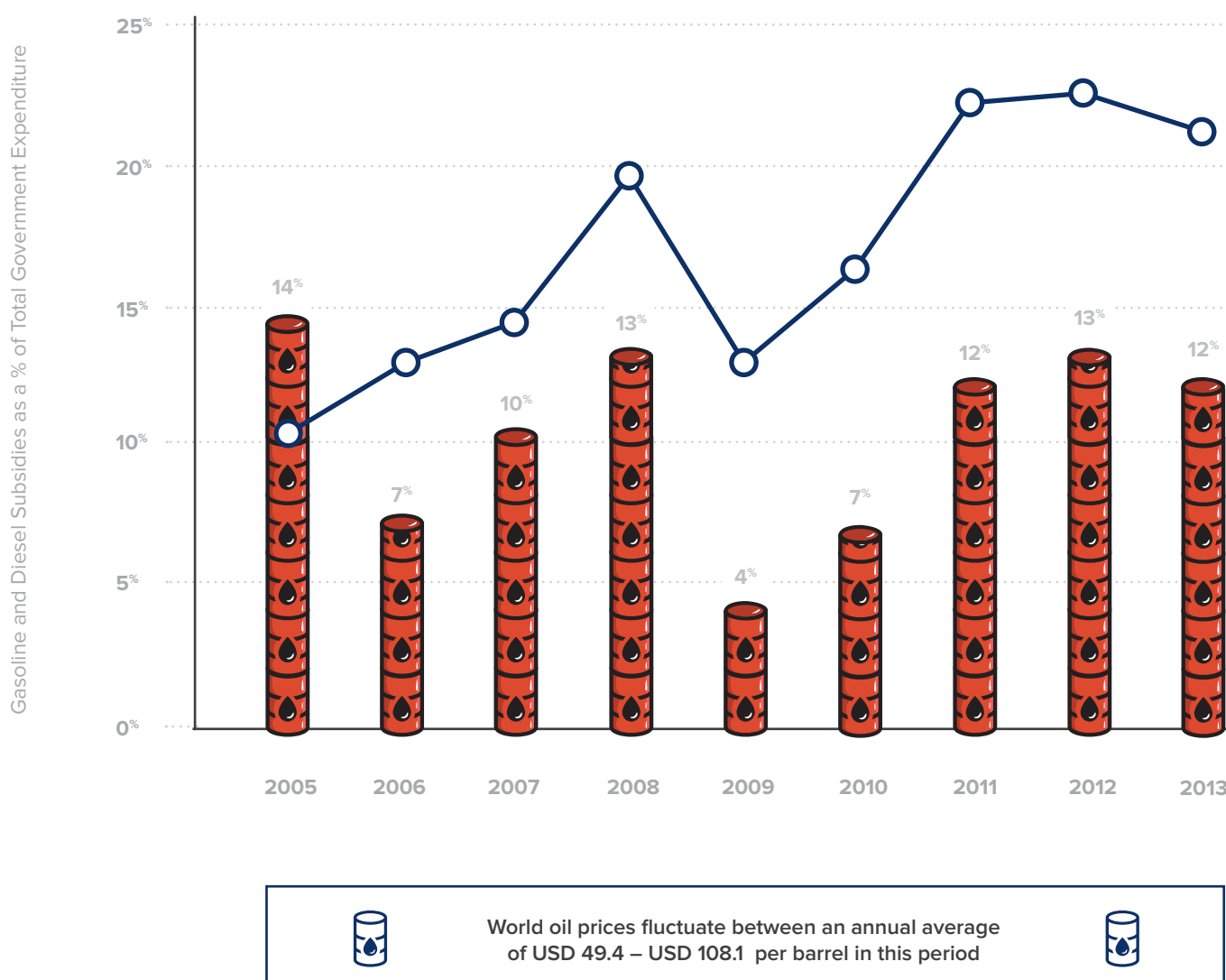
Fuel subsidies have been controversial for many years. The government and many other external commentators argue that subsidies are wasteful, unfair and the money could be better used. One year later, what does the evidence say? How has the money been used? Is the country better off without subsidies?

These questions matter for a number of reasons. If world oil prices rise again, gasoline and diesel prices will have to increase—almost certainly creating pressure for subsidy reintroduction. The public should know what can be achieved in a year without subsidies, to inform this debate. In addition,

Indonesia has other inefficient subsidies in need of reform. In 2015, it allocated IDR 73.1 trillion (USD 5.4 billion) to electricity subsidies and IDR 23.6 trillion (USD 1.7 billion) to liquefied petroleum gas (LPG) subsidies.<sup>2,3</sup> And it has substantial non-energy subsidies. What has 2015 taught us about reallocating savings? Are there principles for how to best balance the interests of the economy, households and the environment? Finally, when a country saves over 10 per cent of all government expenditure, it is simply good practice to ask questions: where exactly did the money go?

**This research team engaged with these issues by exploring two simple questions:**

1. How did Indonesia reallocate gasoline and diesel subsidy savings in 2015?
2. Can we evaluate these reallocations? What worked well? What worked less well?



**Figure 1. Gasoline and Diesel Subsidies as a Share of Government Expenditure, 2005 – 2015**

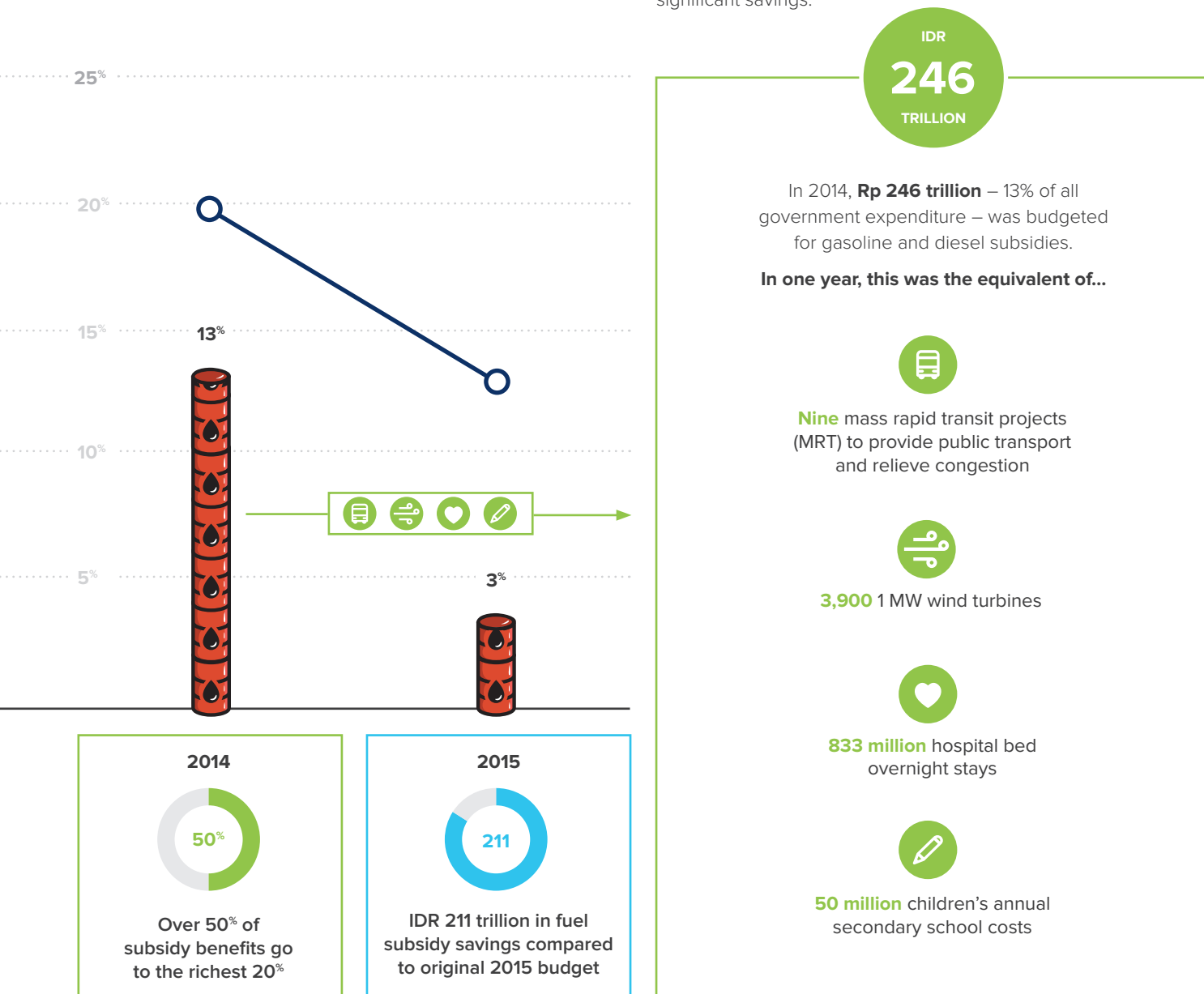
Source: Authors, based on data from State Budget documents (various), Bank Indonesia<sup>4</sup> and IMF.<sup>5</sup>

## 2. BACKGROUND

Throughout the past decade, Indonesia's fuel subsidies have been costly, creating an enormous burden on the state budget: over 10 per cent of all expenditure in most years (see Figure 1). The policies have been widely criticized. They use the country's scarce resources to promote short-term consumption, instead of long-term investments in infrastructure (driving economic growth) or social assistance (reducing poverty). They derive from a period when Indonesia was a large oil exporter, but have been unaffordable since the country became a net oil importer in 2004. They are also unfair, creating the largest benefit for people who can afford to buy lots of fuel: in 2014, over 50 per cent of subsidized fuel was bought by the richest 20 per cent of the population.<sup>6</sup> Finally, cheap fuel encourages inefficient use of fuel, so subsidies also cause pollution. It is estimated that fully reforming fossil fuel subsidies would reduce

greenhouse gas emissions by 7 per cent.<sup>7</sup> These issues are not unique to Indonesia; in 2009 the world's 20 richest economies, the G-20—including Indonesia—committed to the phaseout of inefficient and wasteful fossil fuel subsidies. Many other countries have since followed suit.

During the fourth quarter of 2014, Jokowi was sworn in and by November 2014 he had implemented a reform that increased the prices of gasoline and diesel. In end-December 2014—taking advantage of the fall in international oil prices—this was followed by the shift to a new pricing system. The government announced the removal of all gasoline subsidies, except for distribution costs outside the Java-Madura-Bali area. Diesel was given a fixed subsidy, which would let the price of diesel go up and down but remain IDR 1,000 per litre below its true cost. Prices were to be regularly adjusted. It also came as world oil prices crashed. This played as important a role as the policy change in creating significant savings.



**Figure 2. The scale of subsidies and savings in recent years**

Source: Authors, based on data from State Budget documents (various) Indonesia Investments,<sup>8</sup> Renewables First,<sup>9</sup> WHO,<sup>10</sup> OECD<sup>11</sup> and World Bank.<sup>12</sup> Note: fuel subsidies as a share of total government expenditure for 2014 and 2015 is based on the revised budgets for 2014 and 2015, as data on actual expenditure in each year were not yet available.

### 3. HOW WERE SUBSIDY SAVINGS REALLOCATED?

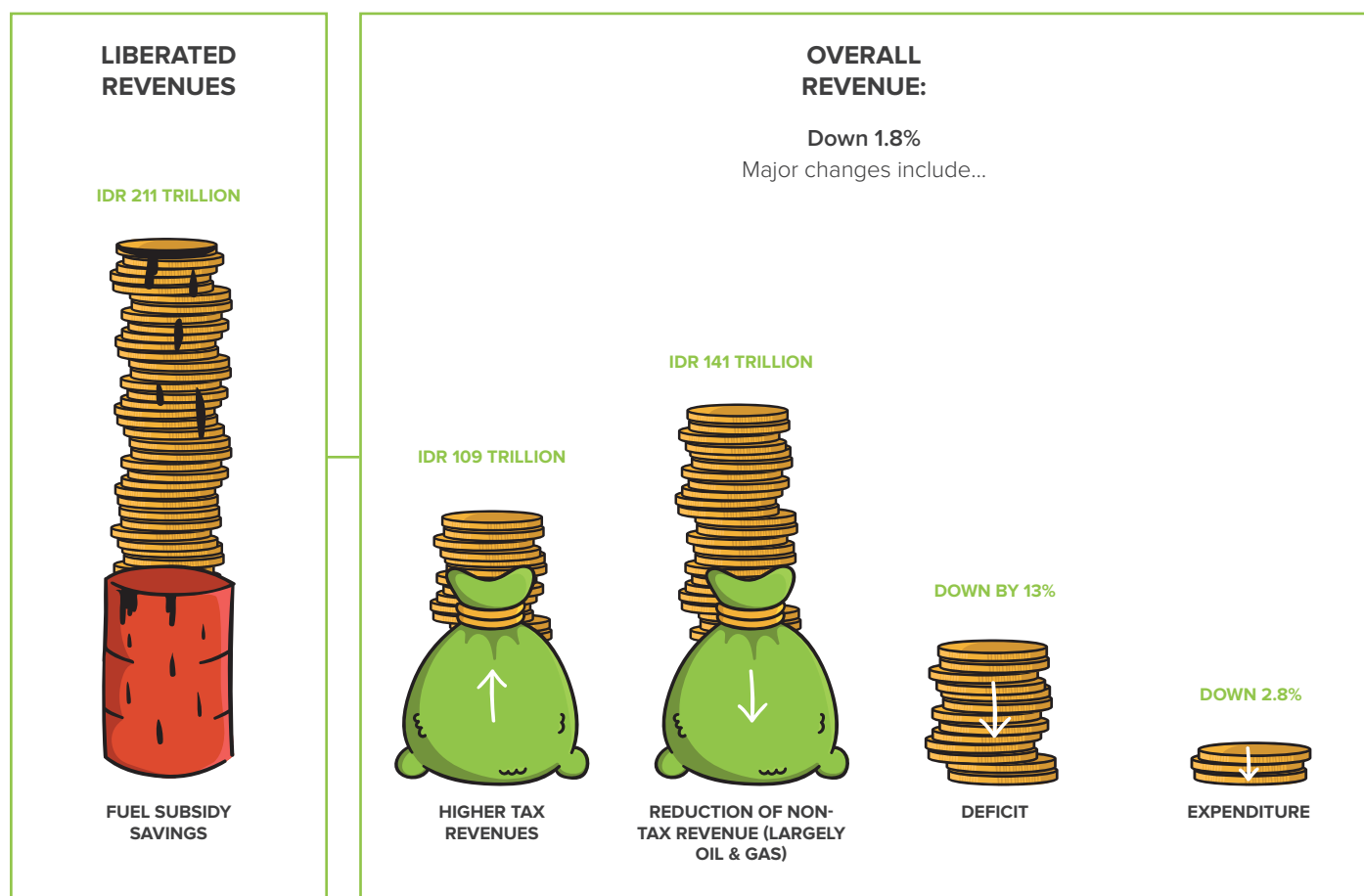
It is impossible to determine exactly how savings were reallocated in 2015 because of the way that government budgets work. When there is a revision, money is saved or lost in a number of areas and savings are simply pooled into the central pot of funding that is distributed via normal budgetary negotiations. There is no way to differentiate between reallocated subsidy savings and, say, increased tax revenue. Things are even more complicated during the transition to a new government, where it is normal to expect many budgetary changes.

Nonetheless, it is possible to identify some rough consequences of reallocation. Subsidy savings were large—10.6 per cent of planned expenditure—so simply comparing the original (pre-reform) and revised (post-reform) budgets for 2015 allows for general shifts to be identified, with reasonable certainty that savings have played a role. This is also, in essence, a comparison of two regimes: ex-President Yudhoyono led the government that drew up the original State Budget 2015 (SB-2015); while the Revised State Budget 2015 (RSB-2015) was led by Jokowi's administration. In addition, reform was highly political, with a number of public statements being made how savings would be reallocated. Cross-checking these commitments with the budget can help identify changes that can justifiably be identified as “reallocation.”

#### 3.1 HOW DID AVAILABLE REVENUE CHANGE? SAVINGS AND LOSSES IN 2015<sup>13</sup>

In RSB-2015, expenditure was freed up in two key areas: energy subsidy savings (including LPG and natural gas vehicle [NGV] subsidies, a total of IDR 211 trillion (USD 15.6 billion)); and higher anticipated tax revenues (IDR 109 trillion (USD 9.7 billion)). Higher tax revenues were, however, largely counter-acted by lower non-tax revenues, a reflection of lower oil and gas profits due to falling

world energy prices (IDR 143 trillion (USD 10.6 trillion)). Overall, revenue decreased from IDR 1,793 trillion to IDR 1,761 trillion (USD 132 billion to USD 130 billion): a 1.8 per cent reduction. Total expenditure also decreased significantly: a 2.7 per cent reduction. The government targeted a lower deficit as a result, reduced from 2.2 per cent of GDP to 1.9 per cent of GDP—a 13 per cent reduction.<sup>14</sup>



**Figure 3. Major revenue, deficit and expenditure changes in RSB-2015**

Source: Authors, based on data from State Budget documents (SB-2015; SBR-2015).

### 3.2 WHAT COMMITMENTS WERE MADE?

President Jokowi announced at an Asia-Pacific Economic Cooperation (APEC) Forum in November 2014 that the general principle behind reallocation was to shift budget from consumptive to productive sectors.<sup>15</sup> In various subsequent official statements, it was made clear by early 2015 that the government intended to reallocate a large share of fuel subsidy savings to state-owned enterprises (SOEs).<sup>16</sup> In May 2015, a member of the Presidential Communication Team, Teten Masduki, further announced that from total savings of IDR 186 trillion (USD 13.8 billion)<sup>17</sup> IDR 120 trillion (USD 8.9 billion) had been reallocated to nine major programs including the village fund, agriculture, education, social security and various kinds of public works and infrastructure (see Table 2).<sup>18</sup> He emphasized that “more than 25 per cent” would go to the program “public works”. However, many of the special programs included possible infrastructure or construction, so allocation to public works was likely higher.

**Table 1. Government Claims on How Fuel Subsidies Were Reallocated to 9 Major Programs**

No.	Programs	IDR tr.
1.	Village Fund	11.7
2.	Port Harbor	11.9
3.	Social Security	14.3
4.	Agriculture	16.9
5.	Special Allocation Fund	19.7
6.	Health (KIS)	2.6
7.	Sea Border	3.3
8.	Public Works	33.2
9.	Education (KIP)	6.4
<b>Total:</b>		<b>120</b>

### 3.3 HOW DID THE BUDGET CHANGE?

In order to identify the extent of reallocation, this study examined in detail changes between State Budget 2015 (SB-2015) and Revised State Budget 2015 (RSB-2015). RSB-2015 identifies a number of programs as priority programs. This study assumed that the IDR 246 trillion additional budget allocated to these programs represents reallocation set by the Jokowi administration. Allocation to priority programs was classified into three budget groups.

1. Ministries' Budget (IDR 148 trillion increase);
2. State-Owned Enterprises' (SOEs) Budget (IDR 60 trillion increase); and
3. Transfer Fund Budget (IDR 35 trillion increase).



**Figure 4. Major areas of budgetary reallocation in RSB-2015**

Source: Authors, based on data from State Budget documents (SB-2015; SBR-2015).



### 3.4 INCREASED MINISTRIES' BUDGETS—IN DETAIL

Comparing SB-2015 and RSB-2015, the budget for ministries increased 23 per cent: from IDR 647 trillion to IDR 795 trillion (USD 47 billion to USD 59 billion). The Ministry of Agriculture's budget rose the highest percentage (106 per cent), followed by the Ministries of Transportation (45 per cent), Public Works and Housing (40 per cent) and Finance (37 per cent).

According to RSB-2015, subsidy savings were intended to “enhance government priority programs.” Key targets on human development, principally through the Ministries of Research, Education, Health and Public Works, included: increasing from 13 per cent to 25 per cent users of the Kartu Indonesia Pintar (KIP), a program to help poor students; increasing to 88 million the beneficiaries of Penerima Bantuan Iuran (PBI), a health insurance program; providing rumah layak (appropriate housing) for 60,000 poor households; and clean water access for 10.3 million households. In addition, the ministries of Trade, Transportation, Public Works, Social Affairs, Labour and Small Enterprise adopted targets to promote equality via poverty alleviation and transportation in remote areas.

Ministries also stated priorities in five strategic areas: food sovereignty, energy security, maritime, tourism and industry. This was principally through the Ministries of Agriculture, Energy and Mineral Resources, Maritime Affairs, Tourism, Industry and Trade, as well as the Coordinating Ministry of Maritime Affairs. Key targets included: increased food supply through development of irrigation; energy access for every citizen and businesses; better transportation and sea connections; increased tourism competitiveness by developing destinations and marketing; and developing areas for medium and large-scale industry.

The group “Other” also saw a large budget increase (32 per cent). Significant items included funding for a number of non-Ministerial institutions, such as science and research authority Lembaga Ilmu Pengetahuan Indonesia LIPI, nuclear agency Badan Tenaga Nuklir Nasional (BATAN) and audit board Badan Pemeriksa Keuangan (BPK); for the Ministry of Tourism (41 per cent, mostly linked to a tourism marketing program); and statistics agency Badan Pusat Statistik (BPS, 28 per cent).

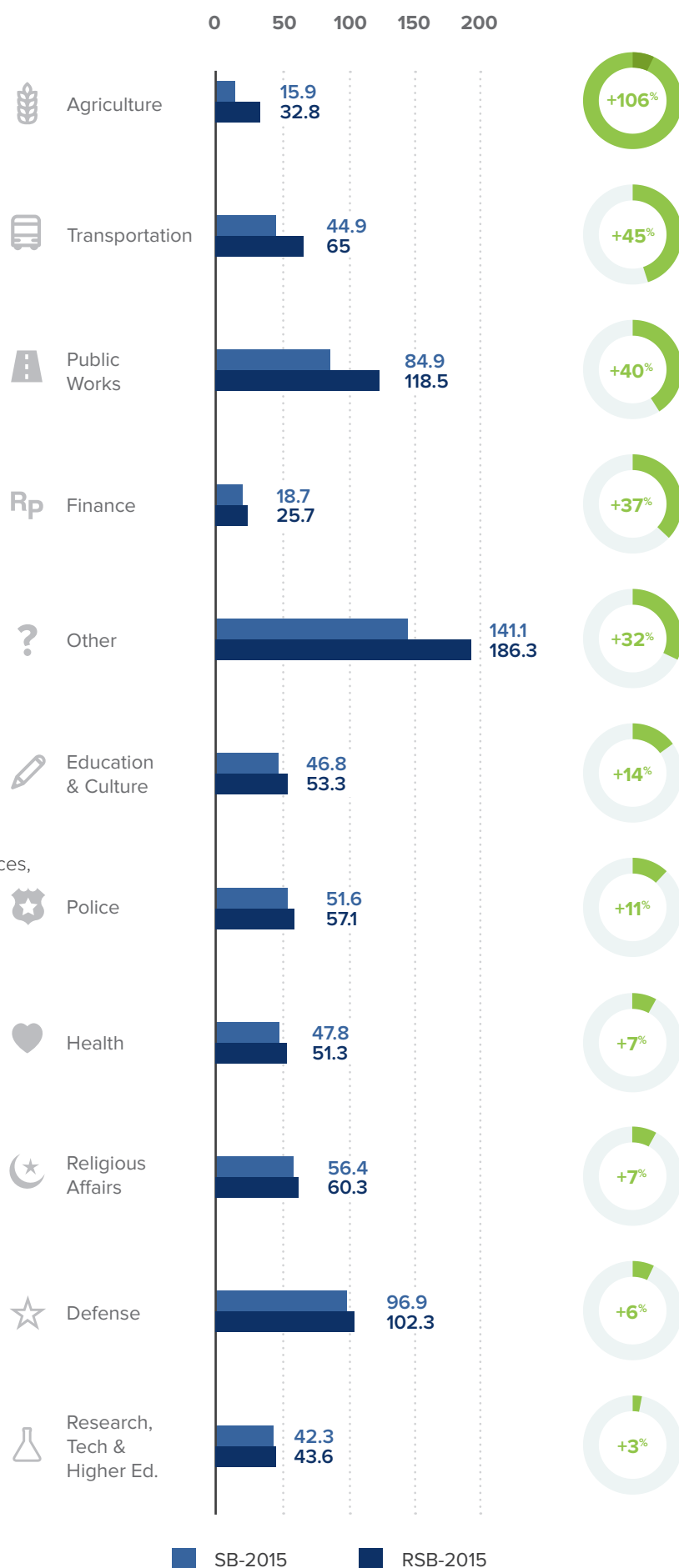


Figure 5. Changes in Ministries' Budgets in RSB-2015 (IDR trn)

### 3.5 CAPITAL INJECTION TO SOES—IN DETAIL

RSB-2015 provided a significant capital injection to SOEs: increasing their funding from only IDR 5 trillion to IDR 61 trillion (USD 0.4 billion to USD 4.5 billion)—more than 10 times the previous budget. This reallocation was made on the rationale that SOEs are less bureaucratic than ministries so they can implement certain programs faster. In addition, SOEs are often better placed to attract investors, particularly if they are profit-oriented, so they can leverage funds from the private sector.<sup>19</sup> In some cases, it can also be argued that SOEs are more separate from political influence than ministries—though it is equally true that they

are often less transparent and accountable than ministries as regards reporting on how funding is spent and what results are achieved. SOEs might also have less legal authority, experience and networks compared to ministries.

The boost in funding included SOEs responsible for air services, sea transport, construction, housing, plantations, financing small and medium-sized enterprises (SMEs), agriculture, fisheries, shipping, mining, rail, tourism and ports (for a full list, see Annex 2). The capital injection was planned to support five government programs as follows:



**Figure 6. Capital injection to SOEs by purpose in RSB-2015 (IDR trillion)**  
Source: SB-2015; SBR-2015.

### 3.6 INCREASED SPENDING FOR THE TRANSFER FUND—IN DETAIL

The Transfer Fund is the fund transferred by the central government to regional governments. In SB-2015, the total fund was IDR 647 trillion (USD 7 billion). This increased to

IDR 665 trillion (USD 49 billion) in RSB-2015, an overall increase of IDR 18 trillion (USD 1.3 billion). This was spread differently over the two main sub-components of the fund (see Figure 7).

#### 1. *DANA PERIMBANGAN* (DECENTRALIZATION FUND).

This is used to support decentralized economic growth across Indonesia.

There are three components, as follows:

##### A. *DANA ALOKASI UMUM* OR DAU (GENERAL ALLOCATION FUND).

This transfer fund is focused on reducing fiscal imbalance among regions.

NO  
CHANGE

##### B. *DANA ALOKASI KHUSUS* OR DAK (SPECIFIC ALLOCATION FUND).

This fund is transferred by the central government to regional and local governments but with specific purposes set by the central government—commonly to support national programs. The budget increase in 2015 was flagged as being for the support of food sovereignty, traditional local markets, regional connectivity and health services.

IDR  
**+23**  
TRILLION

##### C. *DANA BAGI HASIL* OR DBH (REVENUE SHARING FUND).

This is a transfer fund for revenue sharing between the central government and regional and local governments. The central, regional and local governments share revenue from taxes (such as the land and building tax or income tax), customs revenue (such as tobacco) and natural resource concessions.

IDR  
**-17**  
TRILLION

#### 2. *DANA TRANSFER LAINNYA* (OTHER TRANSFER FUND).

This transfer fund is to support special autonomous regions (such as Aceh, Papua and Yogyakarta) and other purposes. One important component is the *Dana Desa* (Village Fund) or DD. The DD is a relatively new transfer fund based on the No. 6 2014. According to that law, the central government must support village revenue in order to finance development.

IDR  
**+12**  
TRILLION

**Figure 7. Changes in transfer fund in RSB-2015 (IDR trillion)**

Source: SB-2015; SBR-2015.

The DAK is intended to be more effective, selective and optimal in achieving specific goals, while the DBH is more suitable for meeting regions' specific needs and conditions. Block grants such as the DBH, DD and DAU are intended to provide flexibility and authority to the regions, particularly at the village level, in managing the funds that they have received. The effectiveness of the allocation in part depends on upon the capacity of regional governments in being able to manage and utilize the funds appropriately.

Comparing SB-2015 and RSB-2015, the DAK increased IDR 23 trillion (USD 1.7 billion) or an increase of 64 per cent. The additional allocation is to support food sovereignty, revitalize traditional local markets, improve regional connectivity and support health services. The DBH decreased by IDR 17 trillion (USD 1.3 billion) or 13 per cent, however, while the DAU did not change. The unchanged DAU and the reduced DBH indicate that while the RSB-2015 increased the transfer fund from central to regional and local governments, it did so in a way that emphasized the promotion of national agendas through the DAK. Nonetheless, the DD received the largest relative increase with an injection of IDR 12 trillion (USD 0.9 billion), an increase of 230 per cent in comparison to SB-2015.

## 4. EVALUATING THE REALLOCATION

It is one thing to identify how savings were reallocated. But, more importantly, was reallocation good for Indonesia? This is a challenging question to answer. Information on actual expenditure in 2015 is not yet available and, in any case, many impacts will take years to be measurable. This is particularly true for infrastructure which—as summarized in Annex 3— can be subject to a number of bottlenecks that delay construction, often for good reason around procurement, accountability and consultation with local communities.

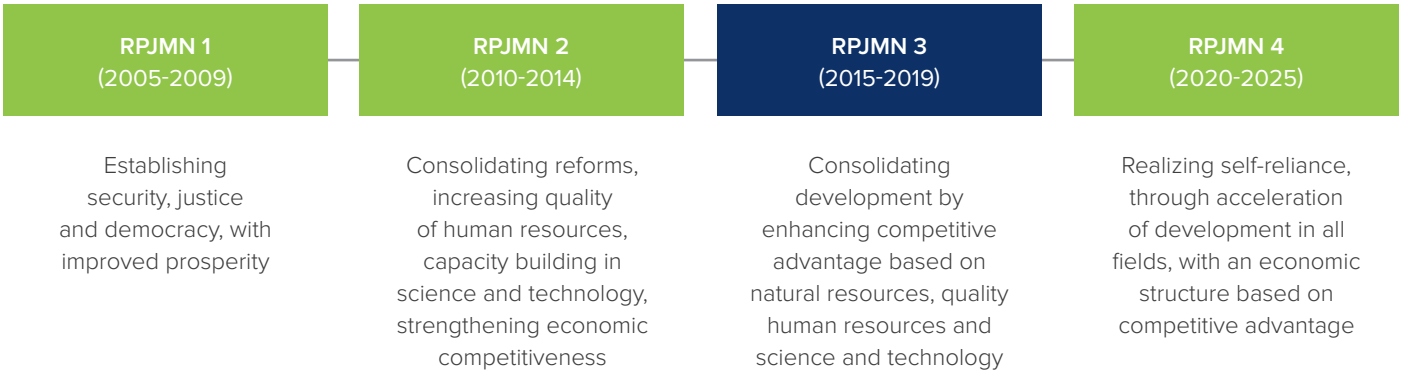
To identify some initial evidence, the research team explored the “effectiveness” of reallocation in four ways: first, identifying how well reallocation was aligned with the government’s 5-year development plan; second, conducting an input-output analysis, to project whether reallocation was likely to have positive or negative impacts on GDP and employment; third, analyzing how reallocation affected budgetary stability; and fourth, interviewing a selection of budget experts from civil society and some senior ministry officials.



### 4.1 ALIGNMENT WITH 5-YEAR DEVELOPMENT PLAN

The National Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional, RPJMN) 2015–2019<sup>20</sup> is the third phase of Indonesia’s National Long-Term Development Plan (Rencana Pembangunan Jangka Panjang Nasional, RPJPN) 2005–2025. It forms the basis for ministries’ Strategic Plans

and is elaborated in the Annual Government Work Plan which forms the basis of the Draft State Budget. The current RPJMN aims to consolidate development through economic competitive advantage based on natural resources, quality human resources and science and technology.



**Figure 8. Stages of development in RPJPN 2005-2025**  
Source: Bappenas (2015)



**Table 2. RPJMN Targets by 2019**

	2014	2019 TARGET
<b>ECONOMY</b>		
GDP growth	5.1%	8.0%
GDP per Capita (thousand Rp)	43,403	72,217
<b>STATE FINANCES</b>		
Deficit	-2.0%	-1.0%
Government Debt Stock (%GDP)	23.9%	19.3%
<b>INFRASTRUCTURE</b>		
Investment Needs by 2019 (IDR trillion), Including:	—	6,780
Road	—	1,274
Railway	—	278
Air Transportation	—	182
Electricity	—	1,080
Clean Water	—	1,091
Drinking Water and Sanitation	—	905
Housing	—	384
Specific Maritime Targets:		
Sea ports	—	24
Ferry ports	210	270
Pioneer ships	15 units	76 units
<b>VILLAGE DEVELOPMENT</b>		
No. of Poor Villages	36,351	31,531
No. of Self-Supporting Villages	2,294	4,294
<b>UNEMPLOYMENT AND POVERTY (%)</b>		
Unemployment Rate	5.9%	4.0-5.0
Poverty Rate**	10.96%	5-6%
Access to clean water*	55.7%	100%
Access to proper sanitation*	20.24%	100%
Access to lighting*	52.3%	100%

Sources: RPJMN 2015-19, PT. Sarana Multi Infrastruktur (2014)<sup>21</sup>, Bappenas (2015)<sup>22</sup>. \* As a share of the lowest 40 per cent of the population. \*\* 2014 poverty rate is prior to Sept 2014, before the November fuel subsidy cut.

The reallocation of fuel subsidies appears to be well aligned with achieving some of RPJMN's specific targets for Indonesia's medium-term development: those relating to infrastructure, to villages and to poverty.

**Infrastructure:** The RPJMN estimates that IDR 6,780 trillion (USD 521 billion) of infrastructure investment is required to elevate Indonesia to middle-income country status.[i]. Of this, around 40 per cent needs to be raised by central government, including investments in roads, rail, air transport, electricity, clean water, sanitation and housing, as well as specific maritime targets on sea ports, ferry ports and pioneer ships to promote greater connectivity (see Table 2). Only four fifths of this sum can be met by national and regional budgets or supported through state lending, bond issuance and other financing. The IDR 38 trillion (USD 8.5 billion) capital injection to SOEs is therefore well aligned with the targets on infrastructure, in particular through its three programs on infrastructure and connectivity, food sovereignty and the maritime sector. In addition, the Ministerial special programs on rumah layak (appropriate housing), clean water access, energy access, better transportation and improved sea connections should also stimulate some of these targeted investments in infrastructure.

**Villages:** The RPJMN targets a 15 per cent reduction in the number of poor villages and an 87 per cent increase in the number of self-supporting villages by 2019 (see Table 2). Although it is not linked to discrete programs and projects—flexibility and authority rests at the village level—the IDR 12 trillion (USD 0.9 billion) increase in budget for the Village Fund provides the resources that villages will require to identify and implement their own solutions to meeting these objectives. This is in addition to the above-mentioned infrastructure projects, which is likely to create benefits for villages where infrastructure directly benefits inhabitants, such as through investments linked to clean water, sanitation and housing, as well as through any related employment creation. In addition to this, Ministerial programs that provide social protection, such as education-related transfers (the Kartu Indonesia Pintar [KIP]) and health insurance (the Penerima Bantuan Iuran), should also contribute to poverty reduction and increased self-sufficiency.

**Poverty:** The RPJMN also targets the eradication of extreme hunger and poverty. This includes reducing poverty rates from around 11 per cent in 2014 to 4–5 per cent by 2019, as well as providing universal access to water, sanitation and lighting (see Table 2). Taken together, the reallocations in RSB-2015 mentioned above should contribute to this, through the benefits related to infrastructure investments, Ministerial special programs on poverty reduction and the increased allocation to the Village Fund, as well as specific targeted Ministerial programs on universal access to clean water and energy.

[i] Bahara Securities (2015). Infrastructure: Threats and opportunities. Retrieved from Jakarta Post: <http://thejakartapost.com/news/2015/01/15/infrastructure-threats-and-opportunities.html>



## CASE STUDY: INVESTING IN INFRASTRUCTURE THROUGH SOEs

RSB-2015 has tried to align itself with RPJMN targets on infrastructure, with a large share of this to be achieved through a capital injection to SOEs. What has this been able to achieve?

In an interview with the research team, an official from PT Waskita Karya Tbk (a state-owned enterprise for infrastructure) argued that the capital injection has been important, especially for SOEs listed on the Indonesian Stock Exchange (IDX). As one of the 22 SOEs listed on the IDX, 34 per cent of PT Waskita Karya Tbk's shares are owned by the public. The IDR 3.5 trillion (USD 0.3 billion) capital injection it received in RSB-2015 allowed it to raise its capital to IDR 5.3 trillion (USD 0.4 billion). The official reported that PT Waskita Karya Tbk then raised further capital, almost IDR 16 trillion (USD 1.2 billion), through obligations and loans, and injected this into its subsidiaries. The official argued that this multiplier effect would not have happened if the same funds were to be given directly to ministries. According to analysis conducted by McKinsey for the Ministry of State-Owned Enterprises, capital injections into SOEs have an average multiplier effect of around 1.1 times without leverage and 3.6 times with leverage.<sup>24</sup>

Despite the benefits of injecting capital into SOEs, the official observed that there had been several problems related to its implementation. First, the disbursement of the capital injection was initially delayed after it was put on hold by the House of Representatives (DPR).<sup>25</sup> This caused delays in the implementation of infrastructure projects, such as in the case of PT Pelabuhan Indonesia (Pelindo) III, which delayed the construction of nine small ports in eastern Indonesia, including at Bima in West Nusa Tenggara and East Nusa Tenggara's Kalabahi and Waingapu. Small ports are not bankable, so the SOE was unable to secure loans from banks. Similarly, PT Angkasa Pura II (AP II) had to seek other sources of funding or delay several projects. Second, the capital injection to SOEs was reduced significantly in the latest budget, State Budget 2016. This followed from arguments by the DPR that capital injections to SOEs should be limited to SOEs that have received special assignments.<sup>26</sup> Consequently, this reduced the ability of the SOEs to leverage funds.

It is not surprising that representatives from SOEs argue that the capital injection has been highly effective at stimulating infrastructure development—but it is difficult to assess such claims objectively without a more transparent system for tracking objectives and performance. Many representatives from civil society organizations, for example, were not convinced that the capital injections met the interests of most citizens (see 3.4 *Interviews with Experts*).





## CASE STUDY: POVERTY ALLEVIATION PROGRAMS—DO THEY WORK?

RSB-2015 has tried to align itself with RPJMN targets on poverty reduction by increasing the budgets of ministries that will flow through into special programs, many of which are poverty alleviation programs. These are often criticized in the media and by political opponents for being ineffective or inefficient.<sup>27</sup> To what extent are they likely to have an impact?

### The social protection fund, IDR 14.3 trillion, includes:

- *Kartu Keluarga Sejahtera* (“Family Prosperity Card,” or KKS)
- *Program Keluarga Harapan* (“Hopeful Family Program,” or PKH)
- *Kartu Indonesia Sehat* (“Indonesian Health Card,” or KIS)
- *Kartu Indonesia Pintar* (“Indonesia Smart Card,” or KIP)

Since his time as Mayor of Surakarta, President Jokowi has emphasized the provision of targeted social assistance using cards as a trademark of his administrations. Despite its use in political messaging, the use of social assistance cards as part of a targeting system to improve poverty alleviation is actually based on rigorous research. Banerjee, et al. (2015),<sup>28</sup> in collaboration with the Government of Indonesia, used a randomized controlled trial to test the performance of *Raskin*—an abbreviation of “*Beras Miskin*” (“Rice of the Poor”), a program designed to provide 15 kg of subsidized rice per month to eligible (poor) households—using identification cards. The study found that beneficiaries with cards received 26 per cent more subsidy compared to beneficiaries without cards—and fewer ineligible households received rice incorrectly. Research by Satriawan, et al. (2015) supports the same results.<sup>29</sup>

Another study, conducted by the World Bank (2012),<sup>30</sup> shows the efficacy of the social assistance card for the PKH program. PKH is a social security program that provides conditional cash assistance to very poor households. In the short term, it aims to reduce the financial burden on these households through a cash transfer; and in the long term it aims to break the chain of intergenerational poverty by encouraging households to invest in children’s health and education, so that the next generation can escape poverty. The PKH is unique in Indonesia because an impact evaluation scheme was built into its design, allowing for an ongoing evaluation of its effectiveness for households and communities. The study finds that, in the short term, the PKH cash transfers do directly increase the income of very poor households while promoting healthy behaviour, increasing expenditure on health (including increased expenditure on protein-rich foods and more frequent visits to health-care facilities) and encouraging children to stay in school for longer.



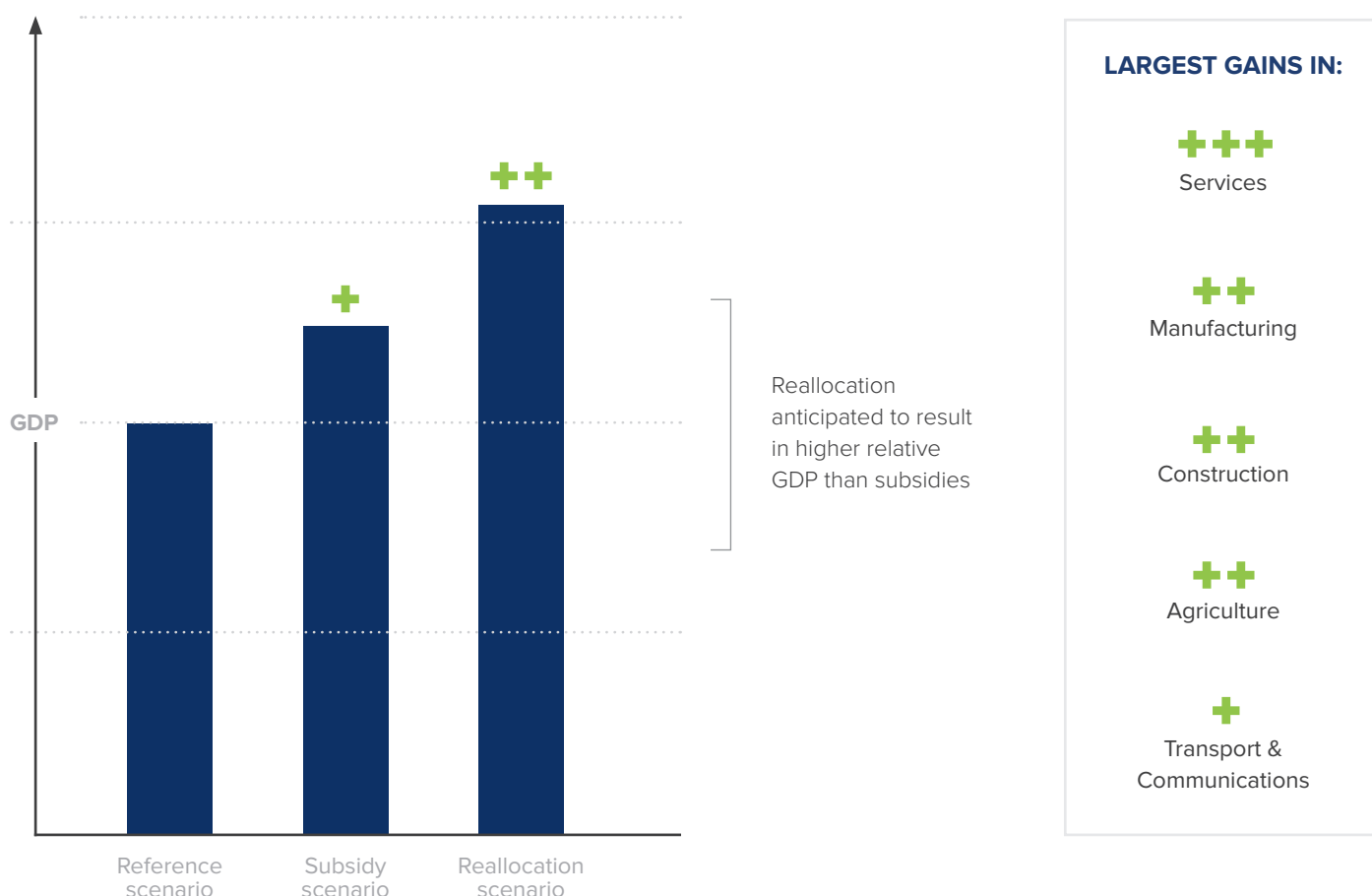
## 4.2 INPUT-OUTPUT ANALYSIS: IMPACTS ON GDP AND EMPLOYMENT

A number of studies have attempted to project the impacts of hypothetical fuel subsidy reforms in Indonesia, typically finding benefits for GDP, the energy sector and poverty, although often at the cost of a short-term economic shock.<sup>31</sup> This study conducts a similar exercise but based upon actual 2015 reforms and reallocation, using an “input-output matrix”—a comprehensive database of information about the economy, split into 66 economic sectors (for more information, see Annex 1). The attribution of elements of budget reallocation to various economic sectors was made in consultation with staff from the Ministry of Finance.

### The analysis considered the following scenarios:

- ▶ A “reference” scenario, in which the economy was modelled without any fuel subsidies.
- ▶ A “subsidy” scenario, in which IDR 276 trillion (USD 20.4 billion—the full gasoline, diesel, LPG and NGV subsidy) was allocated to the petroleum refining sector (economically, the way that the input-output model reflected the subsidy).
- ▶ A “reallocation” scenario, in which IDR 65 trillion (USD 4.8 billion) was left in the petroleum refining sector and IDR 211 trillion (15.6 billion) was reallocated to try to match budgetary changes in RSB-2015, with 43 per cent to boost specific sectors, 32 per cent for infrastructure, 17 per cent for social programs and 8 per cent under a miscellaneous category “other”.<sup>32</sup>

Total economic output in the “reallocation” scenario was 26 per cent higher than the “subsidies” scenario. In particular, this was associated with services, manufacturing, construction, agriculture and transport and communications. Employment also increased significantly. The exact magnitude of the change was large and should be interpreted cautiously: input-output analysis is simple and tends to magnify impacts because it does not take into account balancing forces in an economy. But the general direction of the change—that is, a greater economic benefit being associated with reallocated expenditure—is significant and useful. Essentially, this reflects basic relationships in the Indonesian economy: greater output and employment is associated with investments in productive capacity (infrastructure and social assistance) than consumption (lowering the cost of fuel).



**Figure 9. Relative impacts of reallocation on GDP**

Source: Authors' diagram.





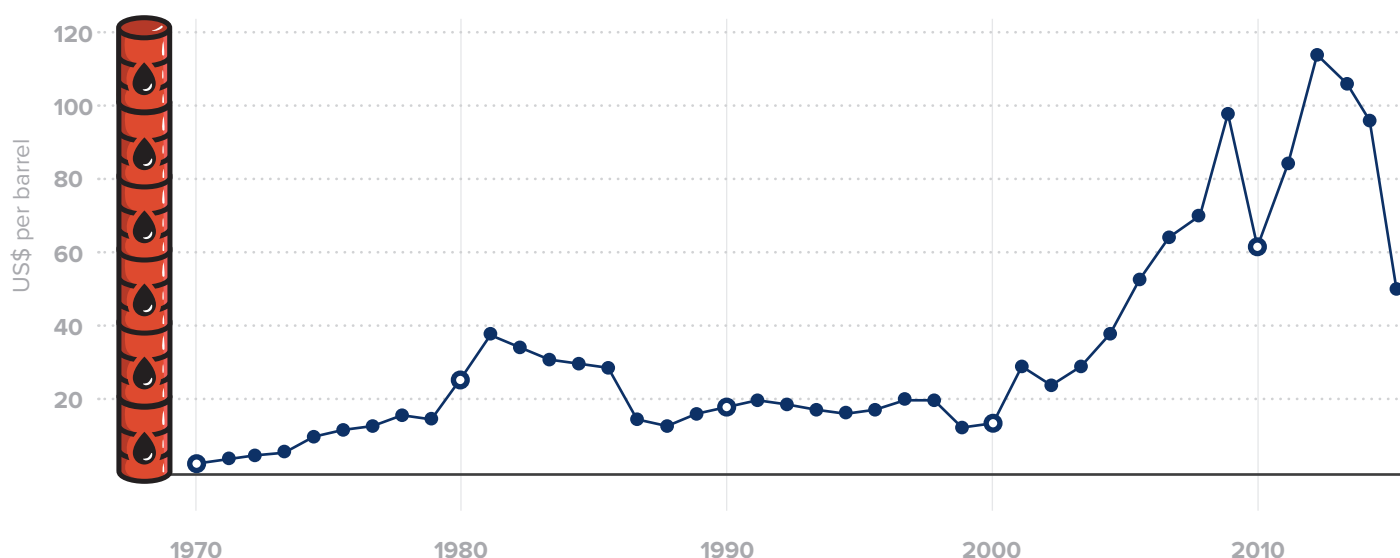
### 4.3 ANALYSIS OF BUDGETARY STABILITY—HOW IS FISCAL RISK AFFECTED?

One of the most common arguments for reducing fuel subsidies is to make the budget more stable: one analysis found that the government could have eliminated the deficit by reducing 51 per cent of the fuel subsidy budget in 2011 and 78 per cent in 2013.<sup>33</sup>

In order to evaluate this, the research team reviewed findings by Ministry of Finance on how the size of the budget deficit would have been affected in SB-2015 and RSB-2015 as a result of changes in international oil prices, exchange rates and domestic oil production. This is based on models of each budget, drawing on an analysis of recent historical relationships between budget variables from 2012–2014. In order for the comparison to be on equal terms, the findings for SB-2015 were adjusted to put them into common terms with RBS-2015, marked in Figure 9 as ASB-2015 (see Annex 1 for full details on method). The research team assessed the findings in the light of its own analysis of the correlation between subsidy expenditure and international oil prices and exchange rates, based on historical data from 2004–2014.

#### ► The international crude oil price (ICP): per +USD 1.

Because Indonesia is an oil producer, an increase in oil prices will increase revenue at the same time as increasing subsidy expenditure. The correlation between the ICP and the deficit in recent years (2012–2014) reflected this relationship, suggesting that every USD 1 increase in world oil prices in SB-2015 would lead to a net contribution to deficit of IDR 2.3 trillion (USD 0.2 billion). This is consistent with third-party analyses, finding that subsidy costs have at times outweighed revenue benefits at a central level during the past decade.<sup>34</sup> After subsidy reduction and reallocation in RSB-2015, the analysis projected that the dynamic would reverse, such that a USD 1 increase in world oil prices would make a net positive contribution toward surplus of IDR 1.3 trillion (USD 0.1 billion). The magnitude of this response is also smaller, suggesting the budget would be less volatile overall. The research team's independent analysis of the association between the ICP and the size of subsidy in recent years (2004–2014) was consistent with this: in RSB-2015, subsidy expenditure would be 3.3 times lower per dollar of the ICP, making the budget less vulnerable to unexpected variations.



**Figure 9. Variation in international crude prices, 1970–2014**

Source: Authors' diagram.

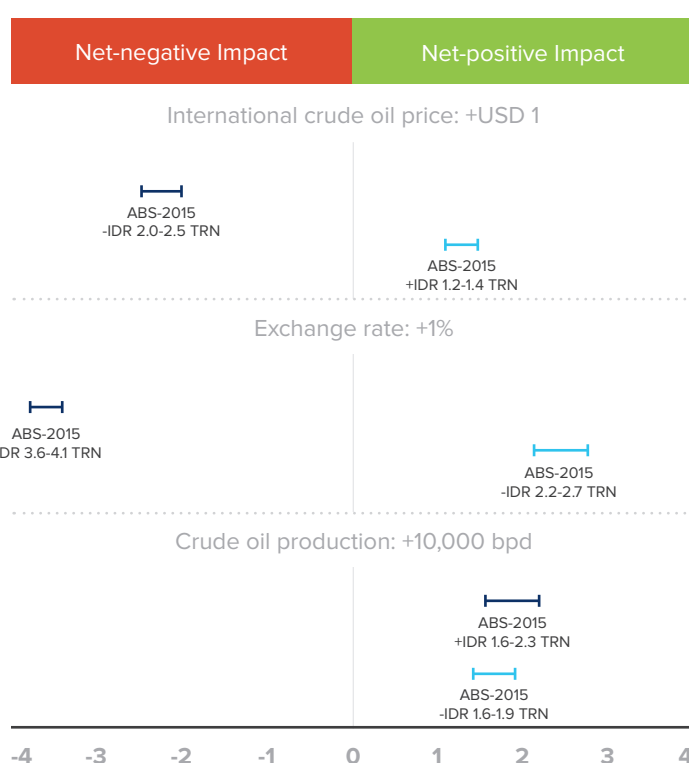


► **The exchange rate: per + IDR 100 per USD.**

Because Indonesia sells large quantities of crude and imports refined oil products, a weakening in the exchange rate can serve to magnify the net cost of subsidy policies. The Ministry of Finance's analysis of the correlation between the exchange rate and the deficit in recent years (2012–2014) found that RSB-2015 would be less vulnerable when the exchange rate weakens, again seeing a reverse in current dynamics and a smaller overall response, where a weakening of IDR 100 per USD was associated with a contribution to surplus of IDR 2.5 trillion (USD 0.2 billion) under ASB-2015 rather than a deficit of IDR 3.8 trillion (USD 0.3 billion). The correlation between the exchange rate and subsidy expenditure in recent years was consistent with this finding: in RSB-2015, subsidy expenditure was anticipated to be 3.4 times less sensitive to changes in the exchange rate.

► **Crude oil production: per +10,000 barrels per day.**

Higher crude oil production increases state revenues and lowers spending on subsidized fuel imports. The Ministry of Finance's analysis found little significant difference between ASB-2015 and RSB-2015 given a 10,000 barrel per day increase in production, resulting in a contribution to a surplus of IDR 1.9 trillion and IDR 1.8 trillion (USD 0.1 billion) respectively.



**Figure 10. Marginal Shift Toward Increased Deficit (-) or Surplus (+) in Response to Unit Changes in Key Macroeconomic Variables (IDR trillion)**

Source: Authors.

**How Does This Compare with Historical Data?**

The exact magnitude of fiscal risk that can be estimated using historical data is by nature uncertain, since there are few years in which the Indonesian economy and subsidy policy are sufficiently comparable, and it is hard to tease out the role that different variables have played. However, the basic relationships under scrutiny operate with a good amount of certainty. After subsidy reform, expenditure on fuel subsidies will change by a smaller amount in response to fluctuations in world oil prices, exchange rates and crude production. This in turn will reduce the extent to which spending deviates from what has been planned.

In practice, we now know that the deficit in 2015 has been one of the largest on record: equal to 2.85 per cent of GDP.<sup>35</sup> How is this compatible with the above findings? The reduction of fiscal risk from subsidies does not equate to the elimination of fiscal risk from other sources. The main source of the large budget deficit in 2015 was due to a combination of factors, including a global economic slowdown and revenue collection being lower than anticipated.



4.4 INTERVIEWS WITH EXPERTS—CIVIL SOCIETY ORGANIZATIONS AND GOVERNMENT OFFICIALS

Finally, the research team investigated attitudes toward subsidy reallocation by interviewing experts from 10 civil society organizations (CSOs) that specialize in budgeting and several officials in government ministries. Interviewees were asked for their opinions on reallocation, including their views on the main successes and challenges (see Annex 1 for detail).

Interviews with Civil Society Organizations (CSOs)

In general, the CSOs were found to be largely supportive: all except one supported the change and none considered the previous government's policy to have performed any better. Nonetheless, respondents felt there was room for improvement, scoring the new policy an average of 3.2 out of 5 (see Figure 11).

A measure of disagreement still remained on the government's responsibility toward the poor. Some argued that the subsidy should be an obligation until the government can control the price of basic goods. Others argued that there was realistically no choice in reducing the subsidy: most of the money had gone to the rich instead of the poor, the policy had been unaffordable overall and the government had been fortunate to implement reform during a period of low world oil prices so that impacts on the poor were minimal.

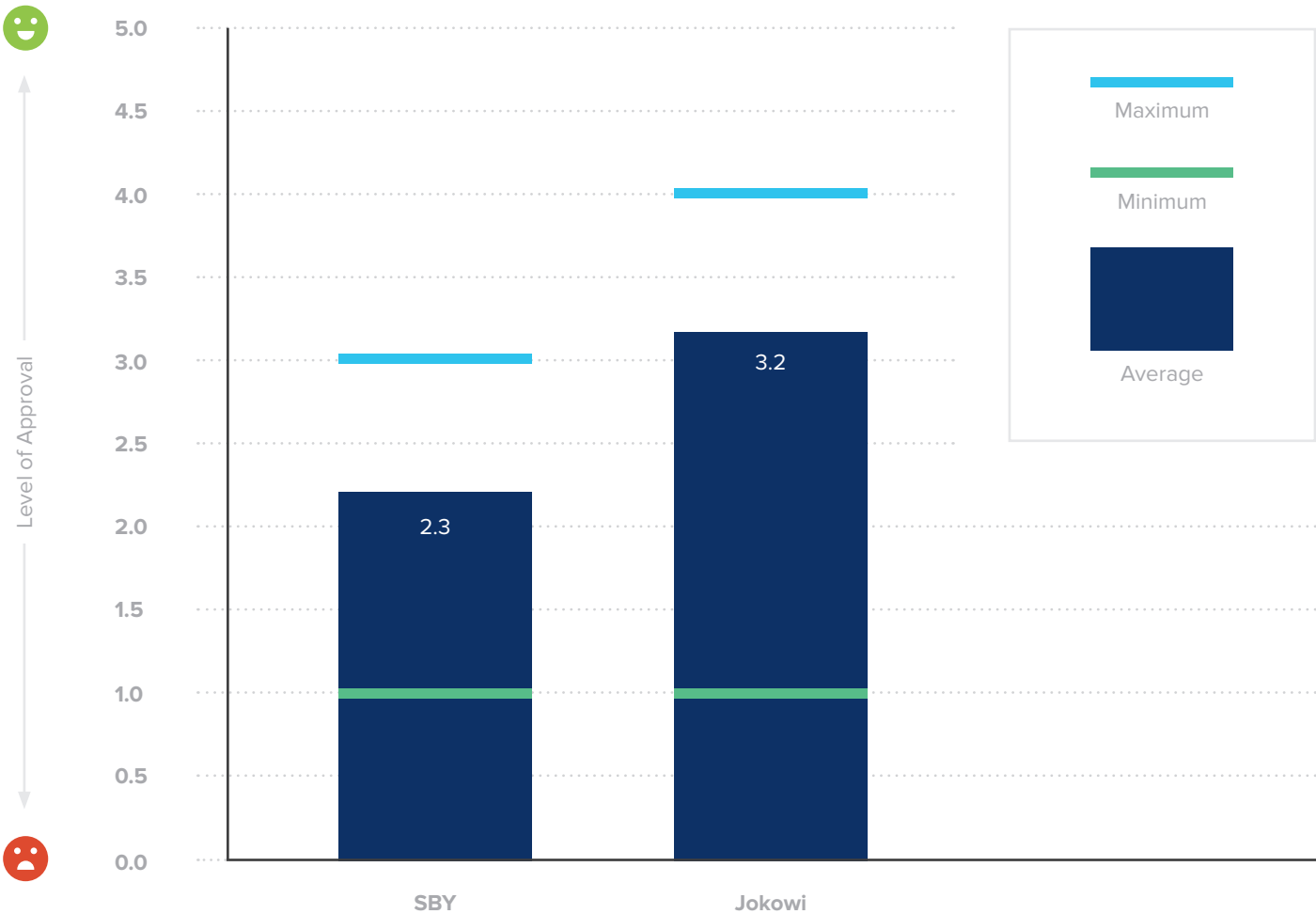
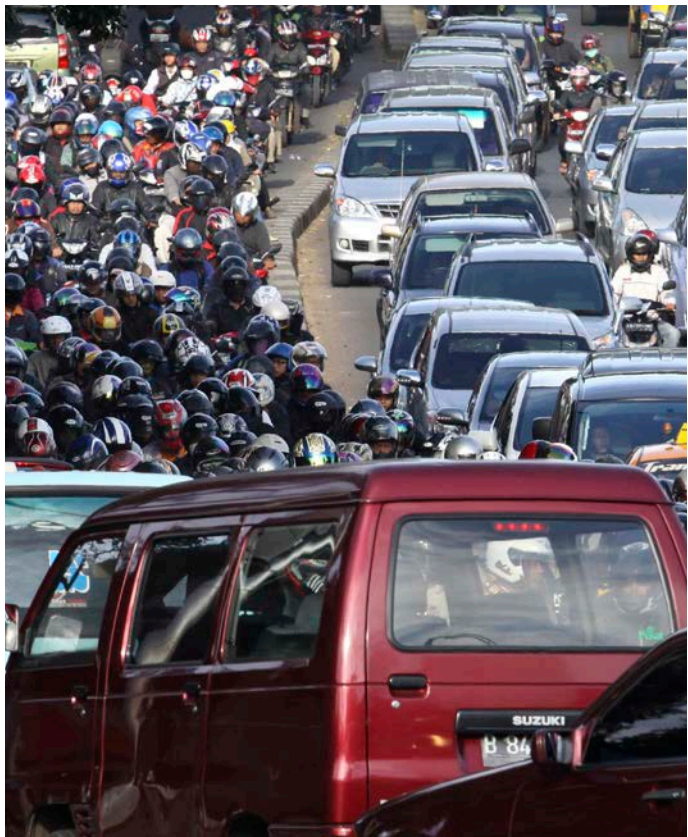


Figure 11. Selected CSOs' perception of the fuel subsidy policies of Susilo Bambang Yudhoyono (SBY) and Joko Widodo (Jokowi) Administrations  
Source: Authors' interviews.



Among the three main areas of subsidy reallocation—increased funds for ministries and special programs; the capital injection to SOEs; and the increase in the transfer fund—the drive to invest in infrastructure was a special focus of comment and discussion.

In general, most CSO representatives were supportive of the government’s drive to improve infrastructure, seeing it as an important way to reduce inequality and boost the economy, though noting the fact that issues such as land acquisitions or project-related environmental problems could have negative impacts on the poor. Many commented on the fact that outcomes and impacts related to infrastructure development could not be expected immediately, as it will take time to plan and construct. At the same time, more mixed views were reported when it came to how infrastructure was being funded and the kind infrastructure being developed.

Many considered capital injections to SOEs to have the least benefits for citizens among all forms of reallocation. The types of infrastructure involved were not considered to support a reduction in fuel consumption and in some cases were seen as biased toward big companies. For example, the development of roads was considered to promote more use and sales of private cars, while the development of railway networks was seen as principally helping big companies transport products to market, rather than small-scale farmers and industries. Some commented on geographic disparities too: for example, investing in railways in Java could help to reduce congestion on toll and arterial roads, but rail investments had not been supported in Java. More broadly, the government was considered to have an unclear policy on SOEs—which ones have strong public service obligations, which ones are profit-oriented, which ones need to be “saved” and which ones should be closed? It was also observed that some political supporters of the government had been appointed as SOE commissioners, undermining public confidence that funds were being used appropriately.

In contrast, most respondents were supportive of improving infrastructure through transfers to villages by the DD “village fund.” The fact that funds would be evenly distributed among the villages in Indonesia was viewed as a way to help reduce inequality, particularly given past problems where infrastructure investment has been heavily influenced by political considerations—for example, villages receiving less investment because they did not support the regent in local elections. In addition, the funding was considered to be more transparent, easily controlled by the receiving community, less susceptible to corruption and with an increased certainty that the funding would address local needs, such as helping local farmers access markets or irrigate crops. It was observed, however, that increasing the village fund had been mandated by the Village Law, as well as being one of Jokowi’s campaign commitments, and as such would have taken place regardless of changes in subsidy policy. It should also be noted that the “even” distribution of funds among villages does not take into account village size, remoteness or poverty rate, reducing the effectiveness of the fund in tackling inequality.

Some respondents also focused on social security, arguing that it had not changed significantly as a result of “Jokowi’s cards”—the smart cards intended to improve the delivery of poverty reduction programs. For example, in the context of health insurance, some argued that the government had focused more on promoting the use of the system by the middle class in order to generate revenue, while the supply side and quality of service remained underdeveloped.



Despite generally favourable overall opinion, a number of common suggestions emerged as to how subsidy reallocation could have been strengthened:

<b>1. Improve public consultation and dissemination.</b>	Respondents felt that the government had spent too little time and effort on public consultations about the policy change. Public knowledge—for example, about the new fuel pricing system or development programs receiving additional funds—was thought to be highly limited.
<b>2. Improve transparency and accountability, both on fuel pricing and reallocation.</b>	Respondents commented that trust in government is lacking due to low levels of transparency. Following reform, fuel prices are now calculated via a formula where key elements are unknown: the MOPS (Mid Oil Platts Singapore) reference price and the determination of “alpha,” a coefficient based on the cost of delivering the fuel. This opens the door to rent seeking. Indonesia Corruption Watch (ICW), for example, estimates that the current alpha appears to be double that levied by the previous administration and inconsistently applied to different fuels, without any explanation. Similarly, respondents argued that no attempts were made to improve transparency or public participation in the sectors receiving additional funds. In particular, concerns were expressed about infrastructure investment across central, district and provincial governments, including the capacity of regional governments to use funds and to be accountable for delivering on responsibilities.
<b>3. Focus on programs with broad, tangible and immediate impacts for most citizens.</b>	Some CSO representatives argued that the government should have earmarked funds to a few dedicated programs with broad, tangible and immediate benefits. An education program to increase obligatory years of schooling ( <i>wajib belajar</i> ) from 9 to 12 years, build schools and expand scholarships for the poor was suggested as a way to educate citizens about reallocation, resulting in better public trust. The impacts of such an approach could also be better tracked by CSOs, improving accountability.
<b>4. Use fuel subsidy reform to promote alternative energy.</b>	Indonesia’s long-term energy plan envisages a large increase in coal power generation, which creates local air pollution and is highly carbon intensive. Yet Indonesia has significant renewable energy resources and, in a few years’ time, will have a surplus of natural gas, which can provide energy for urban populations that is cleaner than coal. Some steps have been taken to promote these energy sources—for example, the government has enabled state electricity company Perusahaan Listrik Negara (PLN) to buy surplus renewable energy from local communities—but operationalization is still lacking. Windfall savings were not used to invest in a clean energy future. Due to poor data on what infrastructure projects have been funded, it is even possible that savings were used to support coal power projects or infrastructure for fossil fuel extraction. This was a missed opportunity. Some CSO representatives suggested going further and taxing fuel consumption, but only if supported with adequate explanations or regulations.





INTERVIEWS WITH GOVERNMENT OFFICIALS

The research team interviewed four government officials, from the Coordinating Ministry of Economy Affairs, the ministries of Public Works and Agriculture and the National Team for the Acceleration of Poverty Reduction (TNP2K). In general, they were supportive of the fuel subsidy reallocation. They noted that it was difficult, however, to compare SB-2015 and RSB-2015 because they had been drawn up under very different conditions—international oil prices, for example, having crashed in late 2014.

Suggestions for how reallocation could be strengthened also emerged from these interviews:

1. Strengthen planning and coordination.	Several ministries received significantly higher budgets, but this was not always accompanied by better planning. As a result, many civil servants’ activities have focused on producing an immediate output instead of long-term outcomes, particularly where they feel that targets are unrealistic. Thus, projects such as the “one million hectare irrigation scheme” are likely to materialize, but planning is not strong enough to achieve the larger overall target of food sovereignty. In some cases, officials specifically cited procurement as an area where planning had been insufficient, resulting in legal uncertainty over how procurement related to targets could be conducted quickly but appropriately. Insufficient planning has also created policy coordination problems. There are 34 ministries, four Ministerial-level government agencies and 29 non-Ministerial agencies, as well as more than 500 provincial, district and municipal governments. The large number of ambitious projects—including food sovereignty, irrigation, electricity and road infrastructure—demands that all the machinery of government moves at the same pace. But this can only happen with proper administrative preparations. Officials argued that this could have been done better, preventing conflicts of interests arising between different parts of government. They also commented on the need for support from the House of Representatives (DPR) in helping to coordinate government policies before prioritizing political interests.
2. Mismatch between institutional capacity and allocated funding.	The sudden increase in budgets received by ministries and other institutions was not preceded or followed by institutional strengthening. This was further complicated by several splits and mergers in agencies as a result of the new administration. Conducting “business as usual” was insufficient to achieve the objectives of budget reallocation. Increasing capacity and improving governance would have improved performance.
3. A more open management culture.	Some officials commented on a culture of <i>asal bapak senang</i> —“as long as the boss is happy”—where officials felt encouraged to agree with superiors rather than argue that a target is unrealistic or that things are behind schedule. They argued that this culture can result in committing to targets that are unlikely to be achieved, in accurate reporting on progress and undermining public confidence in subsidy reallocation, and thus should be strongly discouraged.



# CONCLUSIONS

The reallocation of Indonesia's fuel subsidies has been a major step forward in improving public expenditure. Most sources agree that redirecting funds to productive capacity represents an excellent investment in Indonesia's citizens and economic development—and that the previous fuel subsidies were costly, unfair and bad for the environment.

This study attempted to explore how funds were reallocated and, by extension, to demonstrate what has been achieved in year with lower subsidies. It is not possible to do this precisely but the basic shift in spending patterns is clear. Public expenditure on fossil fuel subsidies fell by IDR 211 trillion (USD 15.6 billion) in Revised State Budget 2015 (RSB-2015) as a combined result

of fuel subsidy reforms and lower world oil prices. Expenditure increased in three main areas, with fuel subsidy savings almost certainly playing a large role: an IDR 148 trillion (USD 10.1 billion) increase in ministries' budgets, much of this supporting "special programs" on human and economic development; an IDR 63 trillion (USD 4.7 billion) "capital injection" to state-owned enterprises with a focus on infrastructure; and an IDR 34 trillion (USD 2.5 billion) increase in transfer funds to regions and villages.

Many of the positive impacts associated with a reallocation will take several years because it takes time for investments in people and infrastructure to create benefits. Despite this, a preliminary evaluation was able to conclude as follows:

## POLICY ALIGNMENT

Reallocation is well aligned with Indonesia's mid-term development plan RPJMN 2015-2019.



Higher spending on infrastructure contributes to RPJMN targets on economic growth and middle-income status.



Higher allocation to transfer funds contributes to RPJMN targets on reducing poor villages and increasing village self-sufficiency.



Higher allocation to infrastructure, villages and social programs is aligned with RPJMN targets on poverty reduction and access to basic needs like water, sanitation and lighting.

## INPUT-OUT ANALYSIS

An input-output matrix (a database on the Indonesian economy) was used to explore relative economic impacts of fuel subsidies and reallocation.



The sectors that have received extra funding tend to stimulate the rest of the economy more than low-cost oil products. As a result, reallocation is likely to generate higher GDP and more jobs than fuel subsidies. Because this is through investments in productive capacity, it may take until the medium term to have full effect.



Key sectors that are likely to see the greatest benefit from subsidy reallocation are services, manufacturing, construction, agriculture, and transport and communications.

## FISCAL RISK

The research team explored how much the new budget would be vulnerable to unplanned over or under-spending in the event of changing macroeconomic variables.



World oil prices and exchange rates were anticipated to have less influence on the budget following reallocation, with a reversal of recent dynamics anticipated; i.e., in RSB-2015, higher world oil prices would increase revenue more than expenditure, contributing to a smaller deficit instead of a larger one. In SB-2015, the same change would have increased the deficit.



Historical data show that the cost of fuel subsidies is directly linked to oil prices, exchange rates and levels of oil production. After reallocation, subsidy costs are less volatile and easier to predict.

Consultations with civil society organizations and government officials also identified several areas where continued attention is needed and that subsidy reallocation could be improved in future. This includes:

► **Communication challenges on subsidy reform still remain.**

Despite over a decade of debate about Indonesia's fossil fuel subsidies and robust evidence that the policies are objectively unfair—with the majority of benefits flowing to the rich instead of the poor—there is still a need to share information and promote discussion on the basic rationale for reform.

► **Reallocation should ideally involve consultation, communications, transparency and accountability.**

There was little consultation on how subsidies should be reallocated and there is currently no mechanism that would allow the Indonesian state budget to transparently track and evaluate a major budget reallocation like the fuel subsidy. In part this reflects the need to avoid budgetary inflexibility. At the same time, there is clearly a demand for such a facility in the case of major policy changes when there is a need to demonstrate tangible benefits to citizens. Some form of system to improve transparency and accountability in the short-term—but that does not constrain budgetary flexibility in the medium-term—should be considered around future reforms. Transparency on fuel pricing following reforms is also important to provide assurance that the new consumer prices are fair.

► **Subsidy reform is an opportunity to invest in clean energy alternatives.**

Although subsidy savings were reinvested in many areas of importance for Indonesia's development, one area that appears to have been overlooked is the energy sector. The national plan for expanding power generation is currently heavily reliant on coal, despite its local and global social and environmental costs. The removal of fuel subsidies was an opportunity to invest in clean and alternative forms of energy. This should be reconsidered in future state budgets and subsequent subsidy reforms.

► **The effectiveness of subsidy reallocation is affected by larger issues around effectiveness of government spending, which are medium-term development objectives in and of themselves.**

There are many areas where the delivery of reallocated expenditure could be improved, but these issues are wound up in larger structural factors related to the basic effectiveness and efficiency of government spending. This includes planning, coordination, rules around procurement, institutional capacity and culture in strategy and implementation. In some cases, subsidy reform savings can be used to invest in some of these areas or better preparation and planning can improve the way that government money is spent; in other areas, improvements in government spending are part of Indonesia's medium-term development and not a reason in and of themselves to delay subsidy reform.

The reform of gasoline and diesel subsidies in Indonesia in 2015 does seem to represent a genuine shift from “subsidizing fuel” to “subsidizing development.” In order to ensure that there is no return to fuel subsidies when world oil prices rise again, it is important for the government to adhere consistently to its new pricing scheme and to carefully track and monitor what Indonesia can achieve without subsidies.

# ANNEX 1. METHODOLOGY

## A. COMPARING BUDGETS

In order to establish differences between SB-2015 and RSB-2015, the research team collected quantitative data from the following sources:

- The original 2015 budget and the revised 2015 state budget.
- The previous budgets under SBY's regime (2009–2014), to help identify whether deviations in RSB-2015 represented significant departures from past trends.
- The 2015 budget execution document (*Daftar Isian Pelaksanaan Anggaran*, DIPA) for the Ministry of Public Works, the Ministry of Agriculture and the Ministry of State-Owned Enterprises to allow for a deeper budgetary analysis of these ministries.

In addition, the research team reviewed media reports, prominent government officers' statements and politicians' statements to identify budgetary commitments related to subsidy reform. These were identified based on the team's existing knowledge and through internet search engines.

## B. ANALYZING BUDGETS

In order to evaluate reforms, this report used four different methods, as summarized below.

### 1. Alignment with 5-Year Development Plan

### 2. Input-Output Analysis

### 3. Analysis of Budgetary Stability

### 4. Interviews with Experts

## B1 ALIGNMENT WITH 5-YEAR DEVELOPMENT PLAN

In order to evaluate the reallocation of fuel subsidies, the research team identified the need for some kind of reference benchmark: against what could subsidy reallocation be judged as more or less effective for Indonesia's development? The National Medium-Term Development Plan (RPJMN) 2015–2019 was chosen because it represents the official analytical judgment of the Government of Indonesia regarding priorities for economic, human and environmental development. The RPJMN is not a perfect benchmark—it is an aspirational development plan

and as such is known for setting ambitious targets that may not in reality be achieved. But as a tool that helps to set the direction and rationale for government policy, it should both reflect the general thrust of major budgetary changes and articulate the general magnitude of what they will accomplish.

In order to determine whether subsidy reallocation was aligned with the RPJMN, key targets from the RPJMN were identified and then cross-referenced with the research team's findings on fuel subsidy reallocation.



## B.2 INPUT-OUTPUT ANALYSIS

An input-output (IO) analysis uses a database of information about the economy to project changes when a shock occurs. It is a relatively quick and simple method that is commonly employed by governments as a basis for planning. The economic system is defined as being composed of sectors that are interrelated. Each sector uses the output of other sectors as inputs to produce outputs. In a state of equilibrium, the amount of aggregate output value (in monetary units) of the overall economy must equal the number of inter-industry input value (in monetary units) and the amount of inter-industry output value (in monetary units).

This analysis is based on the 2005 IO Table published by Badan Pusat Statistik. This defines the economy as being made up of 66 sectors. First, the research team solved a system of linear equations derived from the matrix, to create a multiplier matrix. The multiplier matrix was then used to estimate the impact of budgetary changes on production and employment under SB-2015 and RSB-2015. Employment impacts were estimated based on the ratio between output and full-time equivalent employment data per sector from 2008.

Total government expenditure fell between SB-2015 and RSB-2015 but an input-output matrix is too simple a method to project any impacts from a reduced deficit—the model can only report this as a fall in economic value. In order to isolate the impacts of subsidy reallocation from larger decisions about total expenditure, the research team modelled as a reference scenario the value of the economy with no subsidies. Two “shock” scenarios were then considered: the first, a “fuel subsidy

scenario”, in which IDR 211 trillion was allocated to the petroleum refining sector; the second, a “reallocation scenario” in which IDR 211 trillion was allocated to try to roughly match the fuel subsidy reallocation in RSB-2015.

An input-output analysis has its limitations. First, databases are costly to produce, so they are often out of date. Here, an input table from 2005 is used, despite great changes in the Indonesian economy since this time. Second, it assumes that production technology is fixed, so changes in the quantity and price of inputs will always be proportional to changes in the quantity and price of output. Third, an IO cannot be used to identify changes in income distribution or on poverty. Fourth, it cannot identify the most efficient way to achieve goals; it can only identify if an economy has enough resources to achieve defined targets. Other approaches, such as a social accounting matrix or a computable general equilibrium (CGE) model can overcome some of these weaknesses, but come with their own limitations.

An input-output analysis nonetheless does have advantages. It can be conducted quickly, is easily replicated by others and involves few complex assumptions. It does not try to project exactly how changes will take place in reality—but it does offer useful information about likely impacts, that can be best interpreted within a broader context of information about any policy change. Due to the fact that the input-output data used in this analysis is old—dating back to 2005—the method is only used to identify the likely direction of impacts (i.e., if GDP and employment will be relatively higher or lower under different scenarios) and not the magnitude of impacts (i.e., the exact size of GDP and employment in each scenario).







### B.3 FISCAL RISK ASSESSMENT

Four factors can be assumed to have significant impact on the state budget: (1) macroeconomic indicators; (2) laws and regulations; (3) risk mitigation strategies; and (4) policy and administrative measures. The fiscal risk assessment investigated only the first factor, macroeconomic indicators, focusing on three macroeconomic variables where there are known linkages with fuel subsidy expenditure.

1. The international crude oil price (ICP), measured by Pertamina's moving average spot price based on a basket of five internationally traded crudes: Minas, Tapis, Gippsland, Dubai, and Oman (USD per barrel).
2. The exchange rate (e), measured by Bank Indonesia's IDR/USD exchange rate.
3. Crude oil production (lift), measured by MEMR's data (thousand barrels per day).

Fiscal risks were explored via two methods. The first was to review findings by the Ministry of Finance, as published in state budget documents.<sup>36</sup> This was based on models of each budget developed by the Ministry based on recent economic data (2012–2014), in which it is possible to project what will happen to the budget when macroeconomic assumptions vary. The models did not estimate impacts related to fuel subsidy expenditure specifically, so the research team chose to review the findings between its chosen independent variables (ICP, exchange rates and crude production) and the budget deficit. This was because all three of the variables can increase revenues at the same time as increasing expenditure. A focus on the deficit could aim to capture some of this interaction.

SB-2015 and RSB-2015 used different assumptions (see Table A1). The research team therefore adjusted the outputs from the Ministry of Finance according to the assumptions used in each state budget.

**Table A1. Assumptions in Budgeting SB-2015 and RSB-2015**

VARIABLE Unit	OIL PRICE USD/barrel	EXCHANGE RATE IDR/USD	OIL LIFTING Thousand barrel/day
SB-2015	105	11,900	900
RSB-2015	60	12,500	825

The formula for the adjustment is as follows:

$$\Delta FR_j = FR_j^{RSB2015} - w_j \cdot FR_j^{SB2015}$$

$$w_j = \frac{\Delta A_j^{SB2015}}{\Delta A_j^{SB2015}}$$

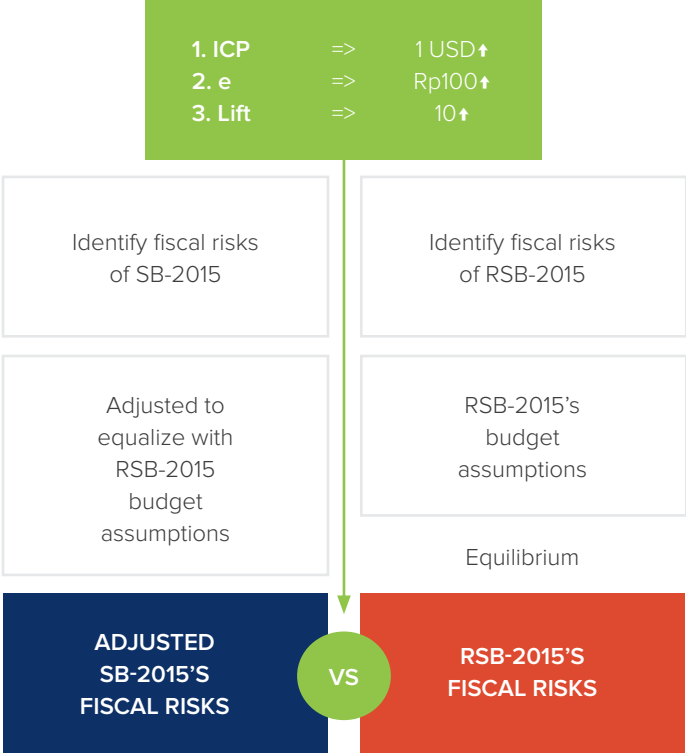
Where  $\Delta FR_j$  is the difference between fiscal risk RSB-2015 in variable  $j$  and fiscal risk SB-2015 in the same variable. The weighted constant,  $w_j$ , is the ratio between the assumptions for the variable in SB-2015 and RSB-2015.



A summary of this approach is depicted in Figure A1. Weaknesses to the approach are that macroeconomic variables are held to be exogenous and separable—that is, one variable can change without influencing the other variables—and the models used by the Ministry are not publicly available, so the underlying data and equations cannot be reviewed for consistency and the method cannot be reproduced. In addition, the approach does not take into account causation of shocks or any policy responses. The method’s strength, however, lies in its methodological simplicity and its proven practical relevance to informing budgetary decision making. More complex approaches—such as a stochastic approach, based on general equilibrium economic models with a fiscal block<sup>37</sup>—can be better at modelling specific, real-life scenarios, but in order to do so they typically involve many more assumptions and can be harder to interpret and read critically as a result. This method allows for broad theoretical impacts to be quickly identified, and for appropriate caveats in interpreting the projected direction and magnitude of effects.

Because the analysis conducted by the Ministry of Finance is based on models that are not publicly available, the research team also employed a second method to confirm if the findings were consistent with basic relationships between the chosen variables and subsidy expenditure. This additional analysis was based on a correlation between two independent variables (the ICP and the exchange rate) and subsidy expenditure during the period 2004–2014. Subsidy expenditure was made the focus rather than the deficit because the method was not well suited to capturing net impacts on both revenues and expenditure. The time period was chosen for being one in which the Indonesian economy and fuel subsidy policies were sufficiently similar to serve as a good basis for comparison. The method looked at actual expenditure rather than budgeted expenditure in order to ensure that actual unplanned variations in subsidy spending were being captured by the dataset. Subsidy expenditure in each period was converted into relative terms to allow for a better comparison: the percentage of total state expenditure. It was then estimated how much subsidy expenditure was associated with each unit of the ICP and the exchange rates in each time period, and the two were compared.

As a method, the first and second approaches share many of the same weaknesses (simplistic assumptions, being unable to take into account the influence of other variables) and strengths (ease of analysis, explanation and interpretation). The key advantages of the second method is in drawing out basic data in a transparent manner on the general ratio between major determinants of subsidy costs (the ICP, the exchange rate) and total subsidy expenditure in the recent past. This contributes to a general understanding of how and why reform contributes to improved fiscal stability.



**Figure A1. Fiscal Risk Assessment**  
Source: Authors.





## B.4 INTERVIEWS WITH GOVERNMENT OFFICIALS AND CIVIL SOCIETY ORGANIZATIONS

In order to investigate attitudes toward Jokowi's fuel subsidy budget reallocation, a series of phone interviews (plus one by email) were conducted with representatives of 10 civil society organizations (CSOs) that work on governance and budget advocacy. These interviews were conducted by Erman

Rahman, Senior Director for Programs from The Asia Foundation, Indonesia. In order to investigate the attitudes of government officials, the research team also conducted a series of phone interviews with several prominent officials in government ministries.

Interviewees were asked five key questions, as follows:

1. Do you agree with Jokowi's policy on fuel subsidy reallocation?
2. What is your opinion on the reallocation of fuel subsidies to additional budgets for (1) ministries, (2) state-owned enterprises and (3) the transfer fund?
3. What are the main challenges or issues in reallocating fuel subsidies to the above expenditures?
4. What are other complexities that need to be considered in fuel subsidy reallocation?
5. On a scale of 0 to 5, how would you rate SBY's and Jokowi's fuel subsidy policies?

**Table A2. Informants for interviews**

NO.	ORGANIZATION NAME	SHORT PROFILE
1	Society PIKUL	NGO for civil rights
2	Article 33	Think tank
3	Seknas FITRA	NGO for budget watch
4	KOPEL	NGO for parliament watch
5	SOMASI	NGO for state budget watch
6	Indonesia Corruption Watch	NGO for corruption watch
7	Society Prakarsa	Research centre
8	GERAK	NGO for anti-corruption
9	Publish What You Pay Indonesia	NGO for state budget watch
10	Indonesia Budget Centre	NGO for state budget watch
11	Coordinating Ministry of Economy Affairs	Ministry
12	The Ministry of Public Work	Ministry
13	The Ministry of Agriculture	Ministry
14	TNP2K (Poverty Alleviation Tim)	Ministry
15	PT Waskita Karya Tbk	State-owned enterprise

## ANNEX 2. CAPITAL INJECTION TO SOES

Table A3. Transfers to State-Owned Enterprises in Revised State Budget 2015

NO.	NAME	FOCUS	CAPITAL INJECTION	
			IDR BN	US MN
1	Pt Dirgantara Indonesia	Aerospace (Civilian & Military)	400	30
2	Perum Bulog	Agroindustry (Logistics)	3,000	222
3	Pt Pertani	Agroindustry (Rice, Others)	470	35
4	Pt Garam	Agroindustry (Salt)	300	22
5	Pt Sang Hyang Seri	Agroindustry (Seed, Others)	400	30
6	Pt Sarana Multigriya Finansial	Banking (Mortgages)	1,000	74
7	Perum Perumnas	Construction (Housing)	2,000	148
8	Pt Utama Karya	Construction (Infrastructure)	3,600	267
9	Pt Waskita Karya Tbk	Construction (Infrastructure)	3,500	259
10	Pt Adhi Karya Tbk	Construction (Infrastructure)	1,400	104
11	Pt Pindad	Defense	700	52
12	Pt Perusahaan Listrik Negara	Energy (Electricity)	5,000	370
13	Pt Geo Dipa Energi	Energy (Geothermal)	607.3	45
14	Pt Perusahaan Pengelola Aset	Finance (Asset Management)	1,000	74
15	Perum Jamkrindo	Finance (Credit Guarantee For Msmes)	1,000	74
16	Pt Penjaminan Infrastruktur Indonesia	Finance (Guarantees For Infrastructure)	1,500	111
17	Pt Sarana Multi Infrastruktur	Finance (Infrastructure)	18,357	1,360
18	Pt Bahana Pembinaan Usaha Indonesia	Finance (Msmes)	250	19
19	Pt Perikanan Nusantara	Fisheries	200	15
20	Perum Perikanan Indonesia	Fisheries	300	22
21	Pt Pelindo Iv	Maritime (Port)	2,000	148
22	Pt Pal Indonesia	Maritime (Shipbuilding)	1,500	111
23	Pt Dok Dan Perkapalan Surabaya	Maritime (Shipbuilding)	200	15
24	Pt Dok Dan Perkapalan Kodja Bahari	Maritime (Shipbuilding)	900	67
25	Pt Industri Kapal Indonesia	Maritime (Shipbuilding)	200	15
26	Pt Antam	Mining And Metals	3,500	259
27	Pttn Iii	Plantation	3,150	233
28	Pttn Vii	Plantation	17.5	1
29	Pttn Ix	Plantation	100	7
30	Pttn X	Plantation	97.5	7
31	Pttn Xi	Plantation	65	5
32	Pttn Xii	Plantation	70	5
33	Pt Kereta Api Indonesia	Rail	2,000	148
34	Pt Permodalan Nasional Madani	Smes (Financial Services)	1,000	74
35	Pt Pengembangan Pariwisata Indonesia	Tourism	250	19
36	Pt Angkasa Pura Ii	Transport (Airports)	2,000	148
37	Pt Asdp	Transport (Ferries & Freight)	1,000	74
38	Pt Pelni	Transport (Ferries & Freight)	500	37
39	Pt Djakarta Lloyd	Transport (Freight)	350	26
<b>TOTAL</b>			<b>63,884</b>	<b>4,732</b>

Source: Revised State Budget 2015.<sup>38</sup> Notes: PT = Perseroean Terbatas, indicating the status of a limited liability company. MSMEs = medium, small and micro-sized enterprises. Transfers to list items 6, 13 and 22 were provisioned in the original state budget, so the size of the “capital injection” discussed in this study is defined as the sum of transfers to state-owned enterprises minus these three originally budgeted transfers.

## ANNEX 3. BOTTLENECK ISSUES AT DIFFERENT POINTS OF THE INFRASTRUCTURE PROJECT CYCLE

Table A4. Illustrative Sample of Bottleneck Issues across Different Stages of the Project Cycle<sup>39</sup>

SUBJECT	POTENTIAL BOTTLENECK	SAMPLE CASE
Spatial Planning (National, Province, and Regency)	<ul style="list-style-type: none"> <li>Inconsistencies between planning documents and the actual condition of land.</li> <li>Finalization of National, Provincial, and Regency Spatial Planning Documents takes a long time due to the review and revision cycle for each document.</li> <li>Possibility of overlapping with other zones or infrastructure due to no integrated Spatial Plan for underground, subsea and airspace.</li> </ul>	<b>Operation Zone of PT. Pertamina EP Pondok Makmur</b> Inconsistencies of land use in Bekasi Regency Spatial Planning required a special approval from the National Spatial Planning Coordinating Board.
Sectoral Master Plan	<ul style="list-style-type: none"> <li>Inconsistencies between the infrastructure development plan and the sectoral master plan.</li> <li>Lengthy time to finalize a sectoral master plan.</li> </ul>	<b>Soekarno Hatta International Airport 3rd Runway</b> The decision to develop a 3rd runway aligned with the Airport Masterplan was determined after ~eight months.
Funding Scheme	<ul style="list-style-type: none"> <li>Limited funding.</li> <li>Difficulty determining adequate level of funding.</li> <li>Inaccurate identification of funding needs due to poor quality study budget estimation.</li> <li>Alteration of funding scheme due to political or other strategic decisions.</li> <li>Difficulty attracting private finance.</li> </ul>	<b>Kertajati Airport</b> Scheme altered to fund the facility with the regional budget due to a lack of private sector interest because of uncertain policy direction on airports.
Environmental Permit	<ul style="list-style-type: none"> <li>Administrative processes take a long time.</li> <li>The evaluation process to obtain the environmental permit takes a long time due to limited resources.</li> <li>A change in policies can affect the process of obtaining an environmental permit.</li> <li>Local opposition may lead to lack of support from the Regional Government.</li> </ul>	<b>Indramayu Power Plant</b> Regent's decision on environmental feasibility not issued, despite environmental impact Appraisal Committee recommendation. This has delayed the project for more than three years.
Land Acquisition	<ul style="list-style-type: none"> <li>Rejection from land owners or community orgs.</li> <li>Process to determine location takes a long time.</li> <li>Changes in policies cause duplication of process.</li> <li>Lack of support from the Regional Government.</li> <li>Land acquisition process takes a long time due to need to improve quality and quantity of resources.</li> </ul>	<b>Batang Power Plant</b> Strong rejection from the community against the land acquisition delays the financial close for more than three years.
Forest Area Use	<ul style="list-style-type: none"> <li>The process of granting a forest use permit could take more than four years.</li> <li>The procedure of granting the forest use permit, especially for conservation forest and protected forest (or if area use conversion is needed) is even longer, uncertain and takes a relatively long time.</li> <li>Rejection from the Regional Government, "hutan desa" society, and environmental organizations.</li> <li>Changes in policies affect the use of forest area.</li> </ul>	<b>Balikpapan-Samarinda Toll Road</b> Balikpapan-Samarinda Toll Road utilizes the "Taman Hutan Rakyat" area, so the conversion of Forest for Other Land Uses (APL) which required approval from DPR and ~two years of time.

SUBJECT	POTENTIAL BOTTLENECK	SAMPLE CASE
Government or SOE Asset Transfer	<ul style="list-style-type: none"> <li>Asset transfer requires a long time due to a lengthy procedure.</li> <li>Prolonged negotiation of asset compensation.</li> <li>Rejection from the asset owner to approve the asset transfer.</li> </ul>	<p><b>Metro Rapid Transit (MRT) Jakarta North-South Corridor Phase 1</b></p> <p>The use of a lodging facility requires a government asset transfer in a form of a grant. The process took ~six months.</p>
Protected or Special Area (e.g., LP2B) and/or utilities	<ul style="list-style-type: none"> <li>Overlap with other protected areas and/or utilities caused by the lack of integration in planning (within and cross sectoral).</li> <li>Rejection from the relevant technical ministries especially when there's overlap with areas designated as a prime industrial area.</li> </ul>	<p><b>Cilamaya Port Access Road</b></p> <p>Took ~three months to reach consensus on using technical engineering (elevated) in order to minimize effects on agricultural land.</p>
Other Permits	<ul style="list-style-type: none"> <li>Permit issuance requires a relatively long time due to the numerous permits associated with different agencies, different procedures for permit issuance in each agency, etc.</li> <li>Changes in policies affect the process of obtaining a certain permit.</li> </ul>	<p><b>Permits to run an oil &amp; gas business in Indonesia</b></p> <p>An investor requires 286 permits to run an oil and gas business in Indonesia. 26 of those are signed by DG Oil and Gas while the other 260 are signed by SKK Migas.</p>
Budget Use or Allocation	<ul style="list-style-type: none"> <li>Unallocated activity in the budget due to the lack of coordination between the technical ministry and the Ministry of Finance.</li> <li>Budget need not aligned with the budget cycle.</li> <li>Inaccessible budget due to administration requirements.</li> </ul>	<p><b>MRT Jakarta North-South Corridor Phase 1</b></p> <p>An administrative regulation regarding the MRT loan allocation was needed for the fund to be accessible for the Engineering Service Phase 2. This took ~eight months.</p>
Government Support (Fiscal) and Government Guarantee	<ul style="list-style-type: none"> <li>Preparation of supporting documents to obtain government support takes a long time due to the absence of a standardized process and criteria.</li> <li>The different criteria for government support and guarantees prolong the time to prepare the supporting documents.</li> </ul>	<p><b>SPAM Umbulan</b></p> <p>The requirements to obtain government support are still incomplete despite the proposal having been completed since 2012.</p>
Procurement (Bidding)	<ul style="list-style-type: none"> <li>Repeating a procurement process due to bidding failure requires a long time.</li> <li>A dead-end in negotiation following the bidding process.</li> <li>Litigation issues.</li> <li>Changes in policies affect the criteria of selecting the winning bid.</li> </ul>	<p><b>South Sumatera 9 &amp; 10 Power Plant</b></p> <p>Due to a change in policies pertaining to the calorific requirements of coal used in power plants, procurement was stopped for ~five months until the policy was clarified.</p>
Construction	<ul style="list-style-type: none"> <li>Delayed construction from the agreed schedule which could be caused by either external or internal factors (e.g., technical error during construction period).</li> <li>Budget limitation from the contractor's side.</li> <li>Difficulty in distributing heavy material to the project's location.</li> </ul>	<p><b>Solo-Kertosono Toll Road</b></p> <p>Even though the winning contractor has been announced, the construction process was delayed due to financial issues.</p>

Source: Authors.



## NOTES AND REFERENCES

<sup>1</sup> Unless otherwise stated or cited from other sources, all currency exchanges are calculated at a rate of IDR 13,500 per USD. Data on gasoline and diesel subsidies only—as opposed to overall fuel subsidies, which includes natural gas for vehicles and liquefied petroleum gas—were obtained directly from the the Directorate General of the Budget in the Ministry of Finance.

<sup>2</sup> Data on electricity subsidies derives from 2015 budget papers. Data on LPG subsidies were obtained directly from the Directorate General of the Budget in the Ministry of Finance.

<sup>3</sup> Cahyafitri, R. (2015). Rising LPG subsidies could pressure state budget: LIPI. Retrieved from <http://www.thejakartapost.com/news/2015/06/06/rising-lpg-subsidies-could-pressure-state-budget-lipi.html>

<sup>4</sup> Bank Indonesia. (2016). Special Data Dissemination Standard (SDDS). Retrieved from [www.bi.go.id/sdds/](http://www.bi.go.id/sdds/)

<sup>5</sup> International Monetary Fund. (2016). Data on Prices of Non-Fuel and Fuel Commodities. Retrieved from <http://www.imf.org/external/np/res/commod/Table3.pdf>

<sup>6</sup> Beaton, C., Lontoh, L. & Waipoi, M. (forthcoming). The political economy of subsidy reform. Case Study: Indonesia. Washington D.C., World Bank.

<sup>7</sup> Merrill, L, Bassi, A.M., Bridle, R. & Toft, L. (2015). Tackling fossil fuel subsidies and climate change: Levelling the energy playing field. Copenhagen: NORDEN. Retrieved from <http://norden.diva-portal.org/smash/get/diva2:860647/FULLTEXT02.pdf>

<sup>8</sup> Indonesia Investments (n.d.). Public projects of the Indonesian government. Retrieved from <http://www.indonesia-investments.com/projects/public-projects/item72>

<sup>9</sup> Renewables First (n.d.). How much does a wind turbine cost? Retrieved from <https://www.renewablesfirst.co.uk/windpower/windpower-learning-centre/how-much-does-a-farm-wind-turbine-small-wind-farm-turbine-cost/>

<sup>10</sup> Based on data from 2008, inflated to 2015. World Health Organization (n.d.). Health service delivery costs. Retrieved from [http://www.who.int/choice/cost-effectiveness/inputs/health\\_service/en/](http://www.who.int/choice/cost-effectiveness/inputs/health_service/en/)

<sup>11</sup> Based on data from 2010, inflated to 2015. OECD (2012). Education at a glance 2012. Paris: OECD. Retrieved from: [http://www.oecd-ilibrary.org/education/education-at-a-glance-2012\\_eaq\\_highlights-2012-en](http://www.oecd-ilibrary.org/education/education-at-a-glance-2012_eaq_highlights-2012-en)

<sup>12</sup> World Bank (forthcoming). The politics of fossil-fuel subsidies. Washington D.C.: World Bank.

<sup>13</sup> All figures on changes between SB-2015 and SBR-2015 based on a comparative analysis of these sources.

<sup>14</sup> The actual deficit in 2015 has been higher than initially budgeted—reported at 2.85 per cent of GDP. This has largely been driven by revenue collection being lower than anticipated.

<sup>15</sup> Rappler (2014). Full speech: Jokowi at APEC CEO Summit 2014. Retrieved from <http://www.rappler.com/world/regions/asia-pacific/indonesia/74620-full-speech-joko-widodo-apec-summit-beijing>

<sup>16</sup> For a summary of reporting on this as of early 2015, see Lontoh & Beaton (2015). Indonesia energy subsidy briefing: February 2015. Geneva & Winnipeg: Global Subsidies Initiative (GSI) of the International Institute for Sustainable Development (IISD). Retrieved from [http://www.iisd.org/gsi/sites/default/files/ffs\\_newsbriefing\\_indonesia\\_feb2015\\_eng.pdf](http://www.iisd.org/gsi/sites/default/files/ffs_newsbriefing_indonesia_feb2015_eng.pdf)

17 No explanation was given for why the total value of savings was IDR 186 trillion. This is higher than the estimated budget for gasoline and diesel subsidy savings (IDR 174 trillion) but lower than the total value of all fuel subsidy savings (including NGV and LPG, IDR 211 trillion). It is possible that this estimate was based on subsequent declines in world oil prices that anticipated even greater budgetary savings on gasoline and diesel subsidies than originally calculated. Sekretariat Kabinet Republik Indonesia (2015). Berterima Kasih Kepada Rakyat, Presiden Jokowi Jelaskan Alokasi Pengalihan Anggaran Subsidi BBM. Retrieved from: <http://setkab.go.id/berterima-kasih-kepada-rakyat-presiden-jokowi-jelaskan-alokasi-pengalihan-anggaran-subsidi-bbm/>

<sup>18</sup> It was not stated how the remaining IDR 66 trillion of savings (USD 4.9 billion)—the gap between IDR 186 trillion and IDR 120 trillion—had been reallocated.

<sup>19</sup> This rationale for the allocation of subsidy savings to SOEs was communicated to the research team during interviews with government officials. For more information about these interviews, see Annex 1.

<sup>20</sup> All three volumes of the RPJMN 2015–2019 are available on the Badan Pengawasan Keuangan dan Pembangunan (Financial and Development Supervisory Agency) website: <http://www.bpkp.go.id/sesma/konten/2254/Buku-I-II-dan-III-RPJMN-2015-2019.bpkp>

<sup>21</sup> PT. Sarana Multi Infrastruktur (2014). Panduan Penyelenggaraan Kerjasama Pemerintah-Swasta (KPS) dalam Penyediaan Infrastruktur. October 2014 Edition. Retrieved January 23 from: [http://www.ptsmi.co.id/wp-content/uploads/2015/10/Panduan\\_KPS\\_PJKP.pdf](http://www.ptsmi.co.id/wp-content/uploads/2015/10/Panduan_KPS_PJKP.pdf)

<sup>22</sup> Bappenas. (2015). Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2015-2019. Jakarta, Indonesia: Bappenas. Retrieved from <http://www.bappenas.go.id/files/rpjmn/RPJMN%202015-2019.zip>

<sup>23</sup> Bahara Securities (2015). Infrastructure: Threats and opportunities. Retrieved from Jakarta Post: <http://thejakartapost.com/news/2015/01/15/infrastructure-threats-and-opportunities.html>

<sup>24</sup> Ministry of State Owned Enterprises (2015). Laporan 1 Tahun Kementerian BUMN - Kabinet Kerja RI. Jakarta, Indonesia.

<sup>25</sup> Jakarta Post. (2015, December 11). SOEs shelve projects linked to state capital injection. Retrieved from <http://www.thejakartapost.com/news/2015/12/11/soes-shelve-projects-linked-state-capital-injection.html>

<sup>26</sup> CNN Indonesia. (2016). Alokasi Dibatasi, Menkeu akan Pangkas BUMN Penerima PMN. Retrieved from <http://www.cnnindonesia.com/ekonomi/20160128092521-78-107279/alokasi-dibatasi-menkeu-akan-pangkas-bumn-penerima-pmn/>

Jakarta Post. (2015). Budget note: Between poverty alleviation and enterprise revitalization. Retrieved February 11, 2016, from <http://www.thejakartapost.com/news/2015/11/02/budget-note-between-poverty-alleviation-and-enterprise-revitalization.html>

<sup>27</sup> For examples, see:

- Kompas.com. (2014). Okky Asokawati Kritik Kartu Indonesia Sehat Jokowi. Kompas.com, Nasional. Retrieved from <http://nasional.kompas.com/read/2014/11/03/17451971/Okky.Asokawati.Kritik.Kartu.Indonesia.Sehat.Jokowi>
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<sup>28</sup> Banerjee, A., Hanna, R., Kyle, J., A. O. B., & Sumarto, S. (2015). The power of transparency: Information, identification cards and food subsidy programs in Indonesia (TNP2K Working Paper 24-2015).

<sup>29</sup> Satriawan, E., Perdana, A., & Prima, R. A. (2015). Pembelajaran dari Uji Coba Desain Baru Raskin 2012: Temuan dari Studi Pemantauan TNP2K (TNP2K Working Paper 28-2015).

<sup>30</sup> World Bank. (2012). Program Keluarga Harapan (PKH) Conditional cash transfer. Social assistance program and public expenditure; review No. 6. Public expenditure review (PER). Washington, DC: World Bank. Retrieved from <http://documents.worldbank.org/curated/en/2012/02/15893876/program-keluarga-harapan-pkh-conditional-cash-transfer>

<sup>31</sup> For examples, see

- Asian Development Bank. (2015). Fossil fuel subsidies in Indonesia: Trends, impacts, and reforms. Manila: Asian Development Bank.
- Aswichyono et al. (2011). Penyesuaian Subsidi BBM: Pilihan Rasional Penyelamatan Ekonomi. Center for Strategic and International Studies.
- Dartanto, T. (2013). Reducing fuel subsidies and the implication on fiscal balance on poverty in Indonesia: A simulation analysis. *Energy Policy*, 58(C), 117–134.
- Susilo, Y. S. (2013). The elimination of fuel subsidies to increase the education budget in Indonesia. *Journal of Economics and Sustainable Development*, 4(3). Retrieved from <http://www.iiste.org/Journals/index.php/JEDS/article/view/4344>

<sup>32</sup> The reallocation to specific sectors was focused on the following input-output sectors: paddy agriculture; fisheries; manufacture of machine, electrical machinery and apparatus; manufacture of other products not elsewhere classified; restaurant and hotel; and services for transport. The reallocation to infrastructure was focused on the following input-output sectors: construction; railway transport; and road transport. The reallocation to social services was focused on the following input-output sectors: social and community services. Note: In order to isolate only the impacts on fuel subsidy expenditure compared to other areas of expenditure, the reduction in total expenditure between SB-2015 and RBS-2015 was not included in the analysis. This is because input-output models are not designed to capture any of the economic impacts associated with reduced fiscal deficits and can only represent such changes as an overall economic loss, which would introduce significant noise into the question at hand: what, specifically, were the impacts of reallocation? For more information, see Annex 1.

<sup>33</sup> See Dartanto, T. (2013). Reducing fuel subsidies and the implication on fiscal balance on poverty in Indonesia: A simulation analysis. *Energy Policy*, 58(C), 117–134.

<sup>34</sup> Analysis by Augustina et al. in 2008 estimated that “even at levels above US\$100 per barrel, the government receives more revenues from oil and gas than it spends on energy subsidies”—but that in several years it ran a “net deficit” at a central level, because of its obligation to share oil and gas revenues with sub-national governments, while subsidy expenditure is borne only at a central level. According to SKK Migas, national oil production during 2015 was on average 787,000 barrels per day, which is 15% less than 2008. This trend of declining oil production will have continued to erode the revenue benefits of oil production at a central level in recent years. See: Agustina, C.D.R.D., del Granado, J.A., Bulman T., Fengler W. & Ikhsan, M. (2008). Black Hole or Black Gold? The Impact of Oil and Gas Prices on Indonesia’s Public Finances. Washington, DC: World Bank. Retrieved from <https://core.ac.uk/download/files/153/6615405.pdf>; and Reuters. (2015). Indonesian Companies See 2016 Oil and Gas Lifting Below Govt’s Target. Retrieved February 29, 2016, from <http://www.reuters.com/article/indonesia-energy-idUSJ9N10T02F20151219>

<sup>35</sup> See for example Sundaryani, F (2016). Indonesia Misses GDP Target For 2015; Deficit Hits 25-Year High. The IB Times, March 23. Retrieved on from <http://www.ibtimes.com/indonesia-misses-gdp-target-2015-deficit-hits-25-year-high-2247036>

<sup>36</sup> See state budget documents for 2015:

- Republik Indonesia (n.d.). Nota Keuangan Dan Anggaran Pendapatan Dan Belanja Negara. Tahun Anggaran 2015. Retrieved on March 10 from: <http://www.anggaran.depkeu.go.id/Content/Publikasi/NK%20APBN/NK%20APBN%202015.pdf>
- Republik Indonesia (n.d.). Nota Keuangan Dan Anggaran Pendapatan Dan Belanja Negara Perubahan. Tahun Anggaran 2015. Retrieved on March 10 from: <http://www.anggaran.depkeu.go.id/Content/Publikasi/NK%20APBN/NK%20APBNP%202015.pdf>

<sup>37</sup> See Kopits, G. (2014). Fiscal risks: New approaches to identification, management and mitigation. Paris: OECD.

<sup>38</sup> Republik Indonesia (n.d.). Nota Keuangan Dan Anggaran Pendapatan Dan Belanja Negara Perubahan. Tahun Anggaran 2015. Retrieved on March 10 from: <http://www.anggaran.depkeu.go.id/Content/Publikasi/NK%20APBN/NK%20APBNP%202015.pdf>

<sup>39</sup> The table is designed to provide examples of the type of bottlenecks that can delay infrastructure projects in Indonesia. The examples are intended to illustrate these bottlenecks, but not to give an exhaustive list of the various bottlenecks experienced by each individual project mentioned. Since experiencing the bottlenecks listed, some of the example projects have begun to progress; others remain in limbo; others have experienced new bottlenecks; and some have been cancelled.

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