Monitoring the fossil fuel subsidies indicator SDG 12.c.1

A Case study of Zambia

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1. Introduction

Eliminating inefficient fossil fuel subsidies is essential for achieving sustainable consumption and production. The importance of phasing out fossil fuel subsidies has been recognised in the 2030 Agenda for Sustainable Development. Rationalizing inefficient fossil-fuel subsidies is included in Goal 12 as a Means of Implementation with an associated indicator:

SDG 12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

Indicator 12.c.1 Amount of fossil fuel subsidies per unit of GDP (production and consumption) and as a proportion of total national expenditure on fossil fuels.

UNSTATS (2016), Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1)

To develop a monitoring methodology for SDG indicator 12.c.1 a fact finding mission to Zambia took place from the 5th-10th November 2017. The findings from this mission are presented in this case study.

2. Background

The 2030 Agenda for Sustainable Development sets out 17 Sustainable Development Goals (SDGs) and 169 targets to be achieved by 2030. Countries' progress on delivering the SDGs will be measured and reported against 232 SDG indicators. UN Environment is the custodian of SDG 12.c.1 which is: Amount of fossil-fuel subsidies per unit of GDP (production and consumption), and as a proportion of total national expenditure on fossil fuels.

As the custodian of this indicator, UN Environment is responsible for developing a global methodology for measuring fossil fuels subsidies. The International Institute for Sustainable Development, with support from the OECD, on behalf of UN Environment, is currently developing an "Options Paper" that outlines the proposed methodology for the monitoring of SDG Indicator 12.c.1. This paper will be reviewed by a technical expert group of several governments and organizations that are involved in the monitoring of fossil fuel subsidies, before being submitted to the Inter-Agency Expert Group on the SDG Indicators (IAEG-SDG) for approval.

To inform the Options Paper, three case studies were conducted in India (Sept.), Zambia (Nov.), and Egypt (Dec. 2017). These country case studies serve to build knowledge on the current national practices of monitoring fossil fuel subsidies. The following questions guide the country case studies:

- How does the country currently monitor fossil fuel subsidies and what data are available?
- How are the subsidies calculated?
- Which agencies monitor fossil fuel subsidies?
- Which types of subsidies should be included in the SDG monitoring?

Timeline

Presentation of outline of options paper and first case study at meeting of the technical expert group in Rome	29 September 2017
Three case study missions to India, Zambia and Egypt	Sept.-Dec. 2017
Review of the draft Options Paper (methodology) by technical expert group	End-January to February 2018
Teleconference of the technical expert group	Febuary or March 2018 (TBC)
Revised draft methodology circulated for review to the Inter-Agency and Expert Group on the Sustainable Development Goal Indicators (IAEG-SDG) and a wider group of countries	March-April 2018 (TBC)

3. Background energy sector

At the centre of Zambia's electricity sector is ZESCO, a vertically integrated state owned utility. All generation is either owned by ZESCO or one of a number of Independent Power Producers (IPPs). Electricity generation has been historically dominated by hydropower with a smaller contribution from diesel, coal and solar. The mining industry, in particular copper, accounts for a major part of the economy and around half of all energy consumption. All petroleum products are currently imported. The 2015/16 season, an El Nino season, experienced inadequate rainfall and impacted on hydropower generation, leading to increasing development of thermal generation and interest in renewable energy. Extensive fossil fuel subsidy reforms have been undertaken in recent years to reduce public expenditure on fuels and similar reforms are now underway in the electricity sector. In this context monitoring of fossil fuel subsidies is a topical issue.

Role of the regulatory agency

Electricity tariffs and fuel prices are set by the Energy Regulation Board (ERB), an independent energy statutory regulatory body. The ERB applies the Cost Plus Pricing Methodology (CPM) for determining fuel prices. The underlying assumption of the CPM is that the final price of fuel should cover all the costs incurred in the supply of fuel. The fuel prices in Zambia are mainly determined by two (2) factors namely international oil prices and the exchange rate of the Zambian Kwacha against the United States Dollar. The ERB sets the:

i. Wholesale prices (wholesale prices, are the prices applicable to Oil Marketing Companies when they purchase fuel from the wholesale marketer, namely TAZAMA Petroleum Products Limited) of petrol, diesel, kerosene, Jet A-1, Heavy Fuel Oil, and Liquefied Petroleum Gas; and

ii. The Pump prices (this is the retail price applicable to motorists at the service stations) of petrol, diesel and kerosene.

Petroleum products price reviews are usually conducted upon receipt of Petroleum Feedstock cargo and finished petroleum products, imported by the Ministry of Energy (MoE). However, following a policy change pronouncement by the MOE earlier in 2017, the fuel prices are now reviewed every 60 days. The ERB effects price changes to petroleum products if the proposed change to current wholesale prices is, on average, greater than the 2.5% trigger band. Therefore, petroleum products prices are not adjusted if the average change in the computed or proposed wholesale price is less than the 2.5% threshold.

Since the subsidies were removed in October 2016, the ERB has been conducting a review of fuel prices in line with set guidelines, that is each time a Petroleum Feedstock cargo is received by the country for the 4th quarter of 2017, and every 60 days in 2017 and beyond. The ERB conducts a calculation and advises the government of the changes needed to maintain cost reflective fuel prices. The goal of this is to maintain cost reflective fuel prices and ensure that subsidies do not build up. The ERB publishes information on the decisions rendered by the ERB Board, following each price review in the media and on the ERB's website. Any deficits (if any) between the revenues derived from selling petroleum products and the total costs in the supply chain, would be in effect be a subsidy to be absorbed by the Government through the Treasury under the Ministry of Finance.

Electricity prices are being reformed to maintain cost recovery levels. Electricity tariffs rose by a total of 75% in 2017. Electricity tariffs are determined using the Revenue Requirement Methodology. The tariffs are designed to cover operational costs, depreciation, taxation and a reasonable return on their investment. A review through the Cost of Service Study (CoSS) is currently underway to evaluate the cost of generating, transmitting, distributing and supplying electricity to the various customer categories. This information will be used to set electricity tariffs after the conclusion of the CoSS to bring electricity tariffs to cost reflective levels. The payment made to cover the difference between costs and revenues is recorded as a subsidy by the finance ministry. Total installed capacity stands at 2,827 MW. Hydro generation accounts for 84.5 %; coal accounts for 10.6%; diesel 3.1%; heavy fuel oil at 1.8%; and solar at 0.1%. (Zambia Energy Regulation Board, 2016).

Lessons learned

1. The main subsidies recorded by the Government of Zambia are the direct payments made to cover shortfalls between the cost of supply and collection of revenues of liquid fuels and electricity (*direct transfers*).
2. These subsidies are regularly recorded in the government budget.
3. Electricity tariffs products are set at below-market rates by the regulatory agency that do not take into account the price investment in generation capacity and full cost-recovery of operations (*induced transfers*). Prices for liquid fuels are following a formula to ensure a complete pass-through of world market prices.
4. There is no agreed definition of energy subsidies in Zambia. The understanding of what constitutes a subsidy currently used in Zambia is relatively narrow, covering only direct transfers. Wider concepts that include government revenue foregone were not currently applied or widely known, but discussion of these ideas was met with some level of interest from Government stakeholders.
5. Application of broader established definitions could reveal additional subsidies including foregone tax revenues (*government revenue foregone*) and investment incentives (*risk transfers*).
6. The cost of externalities in not considered a subsidy by any of the interviewees.
7. Recent moves to establish cost reflective tariffs have reduced the cost of subsidies to the public budget significantly.
8. There is currently sufficient capacity to report budgetary subsidies but the SDG monitoring might require more to apply a broader definition. For example, if changes to taxation or the cost of other measures that incentivise consumption or production of energy are included.

Institutional set-up

The Ministry of National Development Planning is the ministry with overall responsibility for the SDG process. The Ministry of Finance and the Energy Ministry have a role in the process with regard to SDG indicator 12.c.1.

The responsibility for monitoring the indicator rests with the Ministry of National Development Planning. The Central Statistics Office, a department of the planning ministry, are tasked with coordinating the collection of data and the provision of statistics and may play a role in supporting the requests for information for SGD indicators, including indicator 12.c.1.

The Energy Regulation Board (ERB) is an independent regulator with responsibilities for pricing of energy. The decisions taken on pricing create and remove subsidies. Prices on liquid fuels are taken according to an agreed formula that is designed to create complete pass through. However, exchange rate movements or changes in price in between pricing calculations can create subsidies in the short term.

The Finance Ministry as custodian of the national budget has a role in managing the cost of these subsidies and monitoring and recording all budgeted and actual spending on fossil fuels. The common locally applied subsidy definition refers to budget line items. Where the prices paid by government agencies are greater than the prices paid then subsidies appear on the budget to bridge the gap.

The Ministry of National Development Planning sets priorities for the development of the economy and energy prices are a key part of that.

The Zambia Revenue Authority monitors tax income and models the impacts of changes to the tax code on revenues. Some of these changes to taxes on consumption or production of fossil fuels could be considered as subsidies. Under nationally applied definitions this is not currently the case.

The involvement of subnational bodies could not be found, and there is no subnational data available on fossil fuel subsidies.

Capacity seems to be sufficient to fulfill the current monitoring of fossil fuel subsidies of direct transfers, but more resources might be needed for a more extensive monitoring under the SDGs. The Central Statistics Office, a department of the National Development Planning Ministry, responded that they are aware of the need to produce information to satisfy the demands of the SDG indicators. In fact, this mission was the third group that had visited to discuss the collection of data for SDG indicators. They expect that additional resources will be needed to meet the demand for information.

In addition, the International Monetary Fund (IMF) and the World Bank are influential in subsidy policy in Zambia. The IMF Article IV report (IMF, 2017) provides a current summary of subsidies based on Zambian Authorities and IMF estimates. There are reports that recent fossil fuel subsidy reforms are partly due to pressure from the IMF. The IMF is currently negotiating a loan agreement with reform of subsidies reported to be one condition of this loan.

The World Bank is developing a series of large PV projects in partnership with the Zambian Industrial Development Corporation (IDC). These projects will influence the cost of energy and the need for electricity sector subsidies.

Data on fossil fuel subsidies

Scope: The Finance Ministry records the actual expenditure on fossil fuels and the revenues generated through the sale of fuel products (*direct transfers*). From this data annual subsidy estimates are calculated and published in the “Yellow Book” of government expenditures. A subsidy is effectively defined as any difference between operating costs and operating revenues that has to be covered by the public budget. While ERB uses a cost plus pricing methodology using international data to calculate fuel prices, in practice only the actual payment made to cover any difference in actual costs and revenues is recorded as a subsidy by the Finance Ministry. The method is simply adding up the line items that relate to the purchase of fossil fuels and payments made to bridge gaps in government agencies balance sheets.

However this only includes budgetary spending and not information on foregone tax revenue or the provision of goods and services below market rates. There is no analysis of the value of foregone tax revenues or investment incentives. The finance ministry acknowledges that some of these measures could be considered to provide a subsidy thought they do not currently evaluate these policies as subsidies. The Zambia Revenue Authority indicated that they believed that changes to the tax code, for example, excise duty suspensions had an impact on tax receipts and were relevant to discussions of fossil fuel subsidies, thought these taxation changes are not currently considered to be subsidies.

It was noted that there is a question around what constitutes a subsidy. The concept of subsidies applied by the ERB and the finance ministry is very narrow and covers direct transfers to the energy sector. It does not include other subsidy types like government revenue foregone, e.g. through tax breaks, or transfers of risk and induced transfers.

There was additional interest in the potential for inventory type approaches to evaluate the cost to the public budget of tax incentives, investment guarantees and other policies. It was noted that such an approach could be quite labour intensive.

Types of fuel: Subsidy data is available on petroleum products consumer subsidies and electricity subsidies. There is one coal mine and coal fire power plant. The price of coal is believed to be linked to regional benchmarks but detailed information on this pricing methodology was not available.

Data format: The Yellow Book summary of the budget is the main resource for information about subsidies. The Yellow Book is not currently available online. The data is only broken down into the categories of fuel products and electricity subsidies. Subsidies are reported as a nominal figure as part of budget expenditure.

No “price-gap” analysis is being conducted. Cost plus pricing methodology based on index prices in Dar Es Salaam, combined with various benchmarks based on cost and agreed margins for downstream activities are used for fuel pricing. However, only the payments made to cover the difference between operational costs and revenues are recorded by the Finance Ministry as subsidies. The potential for comparing national estimates with international benchmarks was of interest to the Finance Ministry but this was not an approach that has been applied to date. The price gap method is similar to the process used by the ERB to establish wholesale prices so an independent price gap approach would be expected to confirm that subsidies are low on petroleum products.

No difference is being made between consumer and producer subsidies. Monitoring is focussed on consumer subsides for petroleum products. Subsidies to the electricity sector as a whole are recorded but data is not broken down further. The difference between average generation costs and the rates agreed in power purchase agreements could be considered a producer subsidy. However, these potential subsidies are not monitored or measured.

Externalities are not included in locally applied definitions of the term subsidies. The Zambia Environmental Management Agency is concerned about the level of air pollution in cities but this is viewed as more of a regulatory issue than a subsidy issue. Greenhouse gas emissions are considered in environmental management but these are not a driving factor in the subsidy debate. The inclusion of externalities in subsidy measurement and monitoring would not be in line with current practise in Zambia.

“Total national expenditure”: The Finance Ministry do have data on expenditure on fossil fuels but they do not currently generate aggregate statistics based on this data.

Data	Reported (yes/no)	Agency in charge of data collection
Annual financial accounts	Yes	
Government budget	Yes	Ministry of Finance
SOE accounts	Yes	The SOEs come out with their Annual Reports. ZESCO are the publically owned vertically integrated utility and produce annual accounts.
Volumes and prices of fossil fuels imported, exported and consumed	Yes	Central Statistics Office
Volumes and prices of electricity imported, exported and consumed	Yes	Energy Ministry/ Ministry of Finance
Greenhouse gas emissions from fossil fuel combustion	Yes	Central Statistics Office
Tax expenditure	No	Not reported but Zambia revenue authority to have data on the cost of impacts of tax changes.
Government loans and other financial instruments relating to fossil fuel industries	No	

No inventory of fossil fuel subsidies has been identified for Zambia.

The IMF have recently conducted an Article 4 assessment, which includes an evaluation of subsidies to date and projections for the coming years (IMF, 2017). In 2016 The World Bank published an Economic Brief including figures for subsidy estimates (World Bank 2016).

Fossil fuel subsidy reform

Reforms have been reported : In 2013 the reform of subsidies to transport fuels was effected and announced, resulting in fuel prices increasing in May 2013. However, fuel prices were not adjusted consistently in line with fundamentals. The fuel prices were adjusted three times in 2014, , in April, November and December. The fuel prices were also adjusted three times in 2015, in January, May and July. The Government subsequently subsidised fuel prices for 15 months, until subsidies were removed by Government in October 2016 when fuel prices were adjusted upwards. The ERB has since then adjusted fuel prices consistently in line with set guidelines. Petrol and diesel are now believed to be cost reflective. In 2017 it is reported there was a 75% increase in electricity tariffs and that an end to electricity consumer subsidies and agricultural subsidies had been decided (Lusaka Times, 2017a). News reports showed that Zambia was planning a phase out of approximately USD 1 billion in 2016 (Reuters, 2016).

Consumer Unity and Trust Society (CUTS) International Lusaka found that fossil fuel subsidy reforms in 2013 led to an increase in household expenditure of a reported 30 percent and found that following the removal of subsidies to diesel led to a 41 percent decline in diesel consumption between April and July 2013 (CUTS, 2013). The 2013 reforms were reported to have been designed to free up resources to for health and education spending and to address inequality (CUTS, 2013).

Supplementary material

News reports indicate plans to phase out consumer electricity subsidies and subsidies to mining. A World Bank report states that subsidies increased by 97% (in real terms) to ZMW 4.9 billion in 2015, including the government stepping-in to moderate the prices of fuel, food and electricity and also to provide farmers with agricultural inputs aimed at improving yields (Lusaka Times, 2017b) (World Bank, 2016). It is estimated that fuel subsidies have averaged close to US$36 million per month between September 2015 and May 2016, and electricity subsidies around $26million per month, a combined total of US$576 million, putting huge pressure on the budget. The respective subsidies are explored below in turn.

Table 1 Fiscal trends

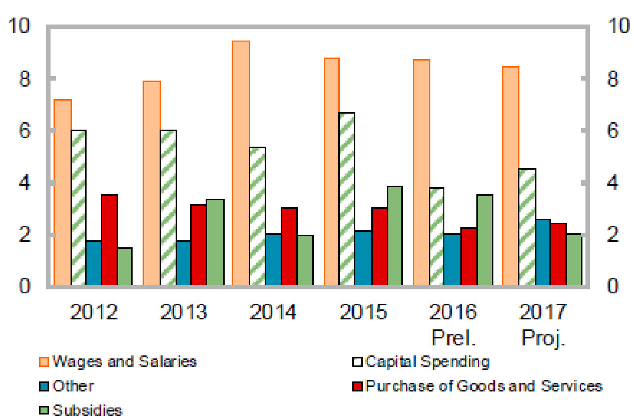
	2011	2012	2013	2014	2015e
Revenue and Grants	**17.5**	**19.1**	**18.4**	**18.9**	**18.7**
Domestic revenue	16.9	17.4	16.9	18.2	18.5
Tax revenue	15.6	15.0	14.7	15.5	14.4
Non-tax revenue	1.3	2.4	2.2	2.7	4.2
Grants	0.6	1.7	1.5	0.8	0.2
Expenditure	**19.3**	**22.3**	**25.1**	**24.4**	**28.1**
Current expenditure	**15.9**	**16.2**	**18.8**	**19.1**	**20.7**
Wages and Salaries	6.4	7.3	8.2	9.5	8.8
Goods and Services	3.9	3.6	3.3	3.0	2.8
Interest Payments	0.9	1.4	1.5	2.2	2.8
Social Benefits	0.8	0.7	0.5	0.4	0.5
Subsidies	2.5	1.5	3.5	2.0	3.9
Other	1.4	1.7	1.8	1.9	2.0
Public Investment	**3.4**	**6.2**	**6.3**	**5.3**	**7.4**
Fiscal deficit	**-1.8**	**-3.2**	**-6.7**	**-5.5**	**-9.4**
Financing	**1.8**	**3.2**	**6.7**	**5.5**	**9.4**
Domestic financing	0.6	-0.4	6.3	0.8	1.7
External financing	1.2	3.6	0.4	4.7	7.7

Source: Ministry of Finance and World Bank projections
Note: e =estimate, f= forecast

From: " MAKING EVERY KWACHA COUNT" (World Bank, 2016)

An IMF Article IV assessment includes a monitoring of subsidies. A graph of total subsidies as a percentage of GDP is shown below. And a table showing projections for fuel and electricity subsidies show that both classes of subsidies are due to be phased out by the end of 2018.

The wage bill and public investment dominate government spending.



Source: (IMF, 2017)

Table 2. Zambia: Fiscal Operations of Central Government, 2014–22
(Millions of Kwacha)

	2014	2015	2016		2017	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Budget	Prel.	Budget	Baseline						Adjustment					
Revenue	31,564	34,421	42,655	39,410	45,171	42,058	50,485	57,159	66,114	76,509	86,988	42,058	49,740	55,667	64,476	73,818	82,459
Revenue excluding grants	30,297	34,051	42,109	38,885	42,940	40,248	48,834	55,273	63,966	74,139	84,370	40,248	48,112	53,836	62,413	71,560	79,986
Tax	25,837	26,437	30,349	28,028	35,213	33,496	40,819	45,827	53,064	61,979	70,701	33,496	40,215	44,750	52,151	59,893	66,871
Tax revenues adjusted by the backlog of VAT refunds	22,910	26,833	30,349	29,114	35,213	34,624	41,625	46,633	53,548	61,979	70,701	34,624	41,021	45,556	52,635	59,893	66,871
Other revenue, including mineral royalties	4,460	7,615	11,760	10,856	7,727	6,753	8,015	9,446	10,902	12,160	13,670	6,753	7,897	9,086	10,262	11,667	13,116
Of which: Mineral royalties	1,617	3,749	2,889	3,053	1,891	2,598	3,321	3,922	4,554	5,000	5,600	2,598	3,260	3,688	4,102	4,782	5,277
Grants	1,267	369	546	525	2,231	1,809	1,650	1,886	2,148	2,370	2,618	1,809	1,628	1,831	2,063	2,258	2,472
Expenditure	40,640	50,701	49,450	51,713	61,378	61,449	71,914	79,437	88,970	97,469	106,079	59,802	65,682	67,387	74,881	82,566	91,081
Expense	31,770	38,508	40,647	43,555	49,360	48,626	52,084	56,799	63,763	71,084	79,507	48,626	52,125	54,158	59,149	64,656	70,715
Compensation of employees	15,750	16,091	20,394	18,807	20,055	21,070	23,093	25,307	28,323	31,764	35,645	21,070	22,816	24,574	26,976	29,669	32,647
Use of goods and services	5,062	5,519	5,167	4,897	7,982	5,587	6,600	7,405	8,399	9,476	10,666	5,587	6,516	7,201	8,092	9,046	10,089
Interest	3,711	5,224	7,099	7,448	8,408	8,812	10,876	12,280	13,550	14,812	16,699	8,812	10,383	10,860	11,578	12,136	12,981
Subsidies	3,308	7,083	2,909	7,672	4,929	4,932	3,895	3,361	4,148	4,468	4,701	4,932	4,895	3,298	3,480	3,694	3,817
Fertilizer support program	1,456	2,118	1,004	1,902	2,824	2,626	1,800	1,866	2,537	2,703	2,856	2,626	2,826	1,877	1,980	2,074	2,154
Strategic Food Reserve (FRA)	1,545	1,887	750	910	943	1,294	1,368	1,495	1,611	1,765	1,846	1,294	1,342	1,421	1,500	1,620	1,663
Electricity	0	364	0	1,014	662	662	727	0	0	0	0	662	727	0	0	0	0
Fuel	307	2,713	1,156	3,845	500	350	0	0	0	0	0	350	0	0	0	0	0
Intergovernmental transfers	3,196	3,738	3,928	4,195	5,741	5,914	5,743	6,388	7,100	7,934	8,831	5,914	5,668	6,227	6,865	7,599	8,376
Social benefits	742	852	1,150	537	2,246	2,311	1,877	2,058	2,243	2,630	2,964	2,311	1,846	1,997	2,158	2,512	2,805
Net acquisition of nonfinancial assets	8,870	12,193	8,803	8,157	12,018	12,823	19,830	22,638	25,207	26,386	26,572	11,175	13,557	13,229	15,733	17,910	20,366
Of which: non-donor financed	6,210	7,529	5,565	3,357	4,289	4,611	6,216	6,102	8,359	11,092	13,908	4,611	5,166	5,315	7,555	9,188	10,853
Statistical Discrepancy (-overfinancing)	-454	-844	0	-233	0	0	0	0	0	0	0	0	0	0	0	0	0
Net lending/borrowing (overall balance, cash basis)	-9,530	-17,124	-6,795	-12,535	-16,207	-19,392	-21,429	-22,279	-22,856	-20,960	-19,090	-17,744	-15,942	-11,720	-10,405	-8,748	-8,622
Primary balance (cash basis)	-5,819	-11,900	304	-5,087	-7,799	-10,579	-10,553	-9,998	-9,306	-6,148	-2,392	-8,931	-5,559	-860	1,173	3,388	4,359
Domestic arrears (- payments)	3,937.9	5,516	0	7,287	-3,276	-4,601	-2,000	-1,412	-3,077	-1,045	0	-4,601	-3,618	-2,094	-2,733	0	0
Backlog of VAT refunds (flow)	2,927.0	-396.0	0	-1,086	0	-1,128	-806	-806	-484	0	0	-1,128	-806	-806	-484	0	0
Overall balance, (commitment basis)[1]	-16,395	-22,244	-6,795	-18,736	-12,930	-13,662	-18,624	-20,061	-19,295	-19,915	-19,090	-12,015	-11,518	-8,820	-7,188	-8,748	-8,622
Primary balance (commitment basis)[1]	-12,683	-17,020	304	-11,288	-4,523	-4,850	-7,747	-7,780	-5,746	-5,103	-2,392	-3,202	-1,134	2,041	4,390	3,388	4,359
Financing	9,530	17,124	6,795	12,535	16,207	19,392	21,429	22,279	22,856	20,960	19,090	17,744	15,942	11,720	10,405	8,748	8,622
Net acquisition of financial assets	733	-1,103	129	-1,314	73	106	0	0	0	0	0	106	0	0	0	0	0
Domestic	733	-1,103	129	-1,314	73	106	0	0	0	0	0	106	0	0	0	0	0
Currency and deposits	171	-938	-834	-1,437	0	-167	0	0	0	0	0	-167	0	0	0	0	0
Loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net incurrence of liabilities	10,263	16,021	6,924	11,221	16,280	19,497	21,429	22,279	22,856	20,960	19,090	17,850	15,942	11,720	10,405	8,748	8,622
Domestic	2,082	2,656	1,750	8,216	3,026	11,816	9,148	7,464	10,155	11,203	12,164	9,914	6,588	3,876	6,089	5,036	3,845
Debt securities	2,432	720	2,509	4,718	3,836	12,626	9,148	7,464	10,155	11,203	12,164	10,724	6,588	3,876	6,089	5,036	3,845
Loans	-220	2,066	-759	3,498	-810	-810	0	0	0	0	0	-810	0	0	0	0	0
Foreign	8,181	13,365	5,174	3,005	13,254	7,681	12,282	14,814	12,701	9,757	6,926	7,936	9,354	7,844	4,316	3,712	4,777
Loans	1,501	3,342	5,174	3,005	13,254	7,681	12,282	14,814	12,701	9,757	-3,068	7,936	9,354	7,844	4,316	3,712	-4,215
Budget support, gross	93	0	0	0	0	0	0	0	0	0	0	1,902	2,269	1,567	0	0	0
Project loans, gross	2,289	4,964	4,017	4,966	7,470	8,215	14,753	17,767	16,680	15,123	12,491	6,567	9,509	9,085	8,021	8,565	9,355
Other, gross	0	0	3,121	0	8,033	1,275	0	0	0	0	0	1,275	0	0	0	0	0
Amortization	-788	-1,621	-1,964	-1,961	-2,249	-1,808	-2,471	-2,953	-3,980	-5,366	-15,560	-1,808	-2,424	-2,808	-3,705	-4,853	-13,570
Debt securities	6,680	10,023	0	0	0	0	0	0	0	0	9,995	0	0	0	0	0	8,992
Financing gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Memorandum items:																	
Net Domestic Financing	1,911	3,594	2,584	9,653	3,226	11,983	9,148	7,464	10,155	11,203	12,164	10,081	6,588	3,876	6,089	5,036	3,845
Backlog of VAT refunds (stock)	4,706.0	4,310.0	0	3,224	3,224	2,096	1,290	484	0	0	0	2,096	1,290	484	0	0	0
Primary balance, excluding mining revenue (cash basis)	-8,943	-16,104	-2,954	-9,420	-11,311	-14,286	-15,601	-15,992	-16,250	-13,925	-11,102	-12,638	-10,515	-6,522	-5,160	-3,945	-3,726
Primary balance, excluding mining revenue (commitment ba	-15,808	-21,224	-2,954	-15,621	-8,035	-8,557	-12,795	-13,774	-12,689	-12,880	-11,102	-6,909	-6,090	-3,622	-1,944	-3,945	-3,726
Mining revenue	3,125	4,204	3,258	4,332	3,512	3,707	5,048	5,993	6,944	7,777	8,711	3,707	4,956	5,662	6,333	7,333	8,085
Stock of domestic debt, gross	25,830	33,593	...	51,979	...	55,130	62,278	68,330	73,245	84,448	96,612	53,227	56,197	57,978	61,128	66,164	70,009
Of which: Stock of domestic arrears	5,042	10,148	...	17,317	...	8,652	6,652	5,240	0	0	0	8,652	5,033	2,939	0	0	0
Stock of external debt, gross	33,643	78,989	...	79,132	...	80,102	102,497	125,364	148,157	167,928	183,934	80,350	96,245	107,808	118,692	128,207	137,491
Total public debt	59,473	112,582	...	131,111	...	135,231	164,774	193,695	221,402	252,376	280,547	133,577	152,442	165,786	179,820	194,371	207,501

Sources: Zambian authorities; and IMF staff estimates and projections.

1 Adjusted for accumulation/clearance of VAT refund claims and arrears relating to FRA, FISP, subsidies, public investment, and pensions.

Source: (IMF, 2017) pg 37

Table 2: List of Officials who have been consulted

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MINISTRY OF ENERGY

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CABINET OFFICE

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Mr. Sichomba	Assistant Director-Technical	

ZAMBIA ENVIRONMENTAL MANAGEMENT AGENCY-8th November, 2017

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MINISTRY OF FINANCE-9th November, 2017

NAME	POSITION	EMAIL/PHONE NUMBER
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Mr. Chabu		0974134859

ZAMBIA REVENUE AUTHORITY-10th November, 2017

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