

FISCAL SPACE FOR HEALTH IN MALAWI AND REVENUE POTENTIAL OF 'INNOVATIVE FINANCING'



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Acronyms

AfDB	African Development Bank
ANC	Antenatal Care
APM	Automatic Pricing Mechanism
ART	Antiretroviral Therapy
BoP	Balance of Payments
CHAM	Christian Health Association of Malawi
CIT	Corporate Income Tax
CPI	Consumer Price Index
DALY	Disability Adjusted Life Year
EHP	Essential Health Package
EITI	Extractive Industries Transparency Initiative
EPC	Energy Pricing Committee
ETR	Effective Tax Rate
FOB	Free on Board
GDP	Gross Domestic Product
GoM	Government of Malawi
GSMA	Global System for Mobile communication Association
HIV/AIDS	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
HNP	Health, Nutrition and Population
IBLC	In-Bond Landed Cost
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
MAREP	Malawi Rural Electrification Programme
MDG	Millennium Development Goal
MERA	Malawi Energy Regulatory Authority
MK	Malawi Kwacha
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn and Child Health
MoFED	Ministry of Finance, Economic Planning and Development
MoH	Ministry of Health
MRA	Malawi Revenue Authority
NGO	Non-Governmental Organization
NHA	National Health Accounts
NHIS	National Health Insurance Scheme
NSO	National Statistics Office
OOPS	Out of Pocket Spending

PE	Personal Emoluments
PFM	Public Finance Management
RAF	Road Accident Fund
RBM	Reserve Bank of Malawi
RH	Reproductive Health
SADC	Southern African Development Community
SHI	Social Health Insurance
SSA	sub-Saharan Africa
TB	Tax Base
TFR	Total Fertility Rate
THE	Total Health Expenditure
TPMCF	Third Party Motor Compensation Fund
TR	Tax Revenue
UHC	Universal Health Coverage
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAT	Value Added Tax
WHO	World Health Organization

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1. INTRODUCTION

1. Since 2013, Malawi has considered significant health financing and organizational reforms.

The proposed reforms are based on the principle of solidarity whereby every citizen pays according to his/her ability to pay, and not according to need. The main goal of these reforms is to increase access to quality health services through increased domestic financing to the health sector, efficiency, service availability, and equity. The health reform process consists of four areas, namely: (1) Establishing a Social Health Insurance (SHI) scheme; (2) Creating a Health Fund; (3) Decentralizing district and central hospital level service provision; and (4) Reviewing institutional arrangements between the Government of Malawi (GoM) and the Christian Health Association of Malawi (CHAM). The health reforms are backed by the highest level of political commitment signified by: i) A Health Financing Summit in 2014 which was presided by the President of Malawi, A. P. Mutharika; and ii) A performance contract between the President of Malawi and the Minister for Health that was entered into in 2015. These reforms are being managed by the Vice President while implementation is being executed by the Ministry of Health (MoH) in collaboration with the Ministry of Finance and other government ministries and departments, and development partners.

2. In line with the health reforms outlined above, various proposals have been made to expand domestic revenues for health. This includes the development of contributory SHI as well as proposals for “innovative financing” and earmarked taxes. Revenue from domestic sources of financing would then be pooled through a Health Fund and used to finance health services. To spearhead the establishment of the Health Fund, the GoM requested Abt Associates (SSDI-Systems Project) to examine the revenue generation potential and sustainability of introducing earmarked taxes for health. This work was completed in May 2015 and a report was produced which identified eleven (11) areas¹ for earmarking. To build on this study as well as other studies in the other reform areas, the GoM then requested development partners to review the quality of the work particularly if there are any gaps in the methodology and data, recommendations, and feasibility of implementation. Development partners were also requested to generate more data in areas where the evidence is weak. Based on the outcome of this review, the GoM would then make a decision on the reform areas to implement.

3. In July 2015, a request was made to the World Bank to participate in the health reforms, specifically to review the work on the revenue potential for earmarked taxes for health, and creation of the health fund. This request was conceived on the understanding that analyses of earmarked taxes need to be embedded in the broader macroeconomic and fiscal context of which the World Bank has the expertise to engage beyond the health sector and put health financing into the overall macro-economic context. As such, the Bank team extended the analysis by further examining the adverse effects that may be triggered by the introduction of the proposed earmarked taxes. This was achieved by adding price/cost data, supply and demand-side data (i.e. production, sales and revenue figures), and health statistics. Moreover, considering that proposals for SHI and earmarked taxes for health have been motivated by a perception that the health sector is under-financed and overly reliant on external financing, the report also includes a fiscal space for health analysis. In a nutshell, this report examines the following:

- i. Potential to expand fiscal space in the health sector by critically examining all the five pillars; and drilling-down on the revenue generation potential for twelve (12)² areas proposed for earmarked taxes;
- ii. Risks and potential downsides of earmarked taxation, and adverse effects that may be triggered by the introduction of the proposed earmarked taxes; and

¹ The eleven (11) areas are: (i) fuel; (ii) tobacco products; (iii) alcohol; (iv) mobile phone talktime; (v) corporate businesses; (vi) value added tax; (vii) extractive industries; (viii) moneys received from loans applied through parliament; (ix) donations received from developing partners, foundations etc; (x) annual earnings paid by employees and employers to private health insurance schemes, and (xi) moneys earned by investments made by or on behalf of the Malawi Health Fund.

² This is a combination of the eleven (11) areas initially identified and an analysis of revenue potential of a tax on motor vehicle insurance

- iii. Provides recommendations on the viable options for increasing fiscal space for health in Malawi.

4. The report highlights huge gaps in service coverage and poor quality of services which are symptomatic of a poorly financed and/or inefficient health system. Despite notable improvements in maternal and child health outcomes, Malawi still has a huge disease burden that can be attributed to low coverage/access, and poor quality of essential services. For example, coverage of the key maternal and child health services at 53 percent nationwide is low while there are also inequalities in service coverage by urban-rural setting. The underlying health system bottlenecks are: critical shortage of key health systems inputs (human resources, medicines and medical supplies, and poor/inadequate infrastructure); and poor governance and accountability (including poor public finance management). Some of the bottlenecks in the health system could be a result of inadequate funding i.e. only 13 percent of the government health budget is allocated to drugs and medical supplies, far below the spending norms in other African countries which is estimated at 33 percent (Bennett et al. 1997). Inadequate spending on health has also prompted the Malawian government to explore the introduction of fee-paying wards and bypass fees at secondary and tertiary hospitals but this move has generated resistance from civil society groups who argue that such payments are having a catastrophic impact on the poor. On the other hand, inefficiencies are also high, and reduce the total amount of financial resources available to adequately finance the health system. As a consequence, the health sector is currently not able to deliver on key policy commitments of access and affordability as enshrined in the country's Constitution which seeks to *“provide adequate health care, commensurate with the health needs of Malawian society and international standards of health care”*.

5. Domestic financing for health and total health expenditures as shares of GDP are relatively high in Malawi as compared to peer countries. This suggests that increasing health financing through a re-prioritization of the budget is unlikely. However, in absolute terms, Government health expenditure per capita of US\$11.20 in 2014/15 is less than one-third of the country's total health expenditure per capita of US\$39.2 in 2014/15. The implication is that the GoM has already adequately prioritized health yet the resources being provided are inadequate due to the small size of the GDP. Consequently, external development partners are the major financiers of health care in Malawi and contribute an average of US\$27 per capita per annum over the period 2009/10-2014/15. But 62 percent of the external funding is spent on three diseases (HIV/AIDS, Malaria, and Reproductive Health) which leaves the other components of the health system underfunded. In particular, earmarking donor funding to disease programmes reduces government's flexibility in resource allocation, and ability to re-prioritize funding to emergent needs. Furthermore, donor resources are uncertain and commitments are made for short periods and this makes it difficult to implement sustainable long-term strategies.

6. The potential for increasing fiscal space for health in most of the key areas is limited particularly due to the weak macro-economic environment. While the economy is expected to grow modestly at about 3.7 percent on average between 2016 and 2018³, high fiscal deficit (estimated at 4.3 percent of GDP in 2016/17) and huge total public debt (estimated at 52.1 percent of GDP in 2016/17) will make it difficult to adequately provide public services particularly health and other social services. As such, it would also be difficult to re-prioritize the national budget given the high debt-service ratio, competing priorities from other sectors, and increasing public wage bill as a share of GDP. In addition, the scope for expanding funding and coverage through SHI is limited due to the poor macroeconomic environment, and high levels of informalization in the labour market i.e. 89 percent of total labour force is in informal employment. Given that SHI is often contributory, whereby premiums towards the SHI scheme are usually deducted through the payroll, evidence shows that collecting contributions from the informal sector is often difficult. Secondly, low wages in the formal sector, mean and median of US\$113 and US\$37, respectively, is also indicative of an economy which is not yet ready to accommodate SHI. Thirdly, high levels of poverty and existence of a large pool of “working poor” also make the implementation of SHI unfeasible⁴.

³ World Bank Staff estimate using MFMod

⁴ Only 5 percent of the Malawians live for US\$4-20 a day, compared to the sub-Saharan Africa (SSA) average of 10 percent. Wages in the formal sector are more than 50 percent lower in value (DTUC, 2015).

7. The report further concludes that the potential for raising significant additional revenues for health through earmarked taxes is limited. If all the viable earmarked taxes on fuel and motor vehicle insurance are introduced, an average of MK8.4 billion (equivalent to US\$11.6 million) could be raised per annum over the period 2016/17 to 2021/22 based on the high scenario. This is equivalent to ten (10) percent of the 2014/15 Government Health Expenditure or US\$0.63 per capita per year over the period 2016/17 to 2021/22. This suggests that the amount of revenue that would be raised from earmarked taxes would only make a small contribution to expanding financing for health. Furthermore, earmarked taxes are associated with some risks that are summarized in the report. In particular, a reduction in flexibility of public finances and resource allocation, and the possibility that health budgets are reduced by the corresponding increase in earmarked taxes.

8. With respect to external financing, the report shows that it is the most substantial and important source of health financing in Malawi. However, the declining trend in external financing poses the greatest threat to future financing and provision of better health care in Malawi. Our analysis shows that the level of external funding has been declining in recent years particularly after the ‘Cashgate’⁵ scandal. In particular, external financing declined by US\$118 million in two years or annual average of US\$3.7 per capita over the period 2013/14-2014/15. As most of the public health commodities are externally financed, Malawi is exposed to high dependence and vulnerability to external and internal shocks. At macro level, there has also been a loss of budget support and reduced confidence in the use of Government systems. Given the low levels of on-budget foreign financing at levels previously available to Government, authorities continue to borrow heavily from domestic sources to close the gap. This creates risk of further pushing up inflation and lending rates, crowding out private sector investment and constraining economic growth. As such, it is critical to mitigate the reducing inflow of external resources as the country endeavours to overcome the current macroeconomic challenges.

9. The most viable option for expanding resources and improving results in the health sector is enhancing efficiency of spending and promoting greater predictability and effectiveness of external financing for health. The report provides evidence of inefficiencies in the health system, key areas being: health system leakages (corruption and fraud), high expenditure on human resources, low utilization of hospital services, and sub-optimal intervention mix. Given the current levels of inefficiency in the health sector in Malawi, available financing is inadequate to meet health system goals particularly access to health care, and quality of preventive and curative health care. The results suggest that it is probable to achieve some of the unmet needs in the health sector if inefficiencies are addressed. For instance, using global estimates, we provide a crude efficiency savings estimate of US\$10.6 per capita per annum which could be generated if all the four (4) main sources of inefficiencies in the health sector in Malawi are addressed. However, these results should be used with caution given the considerable uncertainty associated with using global estimates when calculating the cost of health sector inefficiencies. More studies ought to be conducted to examine the sources of inefficiencies in the health sector. On the other hand, predictability and execution of the public health budget is low while financial disbursements are input-based rather than results-based. There is also inconsistency in the allocation of public resources due to the absence of an objectively defined or needs-based resource allocation formula.

10. Based on the results, the report recommends that efforts to increase government spending in the health sector should be implemented through the broader tax system. Tax revenue as a share of GDP which is currently estimated at 16.1 percent could be raised to 20 percent to generate more revenue at macro level. Consequently, emphasis should be on improving efficiency in overall revenue collection by Malawi Revenue Authority (MRA). For example, considering that the Malawian Government is in the process of reviewing the overall tax system, it will be extremely important to align

⁵ In 2013, there was a high-level corruption scandal in which an estimated \$31 million was stolen from government coffers. This scandal is commonly referred to as the “Cashgate” scandal. The Cashgate has become the main reference point for corruption in Malawi, and has eroded investor and donor confidence.

all proposals on earmarked taxes in the health sector to the overall tax reform process. However, if earmarked taxes are used, decisions should be made on whether this intervention will be temporal or long term, and with a full understanding of the broader constraints and priorities. Secondly, improving efficiency in the health sector provides the best option for increasing fiscal space for health because the potential savings could be much more than what could be raised from earmarked taxes for health. A dedicated study should be conducted to examine in detail, the sources of inefficiencies, ways of addressing them, and actual potential efficiency savings. Thirdly, the declining trend in external financing should be averted. The Government could achieve this by regaining the confidence and trust of development partners by putting in place robust governance and accountability systems. On the other hand, development partners should also reduce fragmentation, and increase predictability and flexibility in resource allocation.

11. This report is organized as follows. The next section of this paper (Section 2) outlines the country context including the population and demographic characteristics, health service delivery, macro-fiscal situation, and the health financing profile. Section 3 presents the results from the fiscal space for health analysis for each of the five pillars namely: (i) Conducive macroeconomic environment; (ii) Re-prioritization for health; (iii) Generating additional resources for health; (iv) Increased health sector-specific foreign aid; and (v) Improved efficiency in the health sector. Section 4 provides the results from the review of the proposed areas for earmarked taxation while Section 5 summarizes these results. Suffices to say that revenue forecasts on fuel and motor vehicle insurance are provided in the main body of the report while the analyses on extractives industry, alcohol, and tobacco products are provided in the Annexes. Lastly, Section 6 outlines the key conclusions and recommendations from the study.

2. COUNTRY CONTEXT

2.1 Population and Demographic Characteristics

12. Malawi's population has grown rapidly from almost 3.6 million in 1960 to around 16.3 million in 2015 with about 85 percent of the population residing in rural areas (NSO, 2010). Almost half (46.4 percent) of this population is below the age of 15 years, and owing to an estimated growth rate of 3.2 percent per annum in 2015, Malawi's total population is expected to reach 26.1 million by 2030 (ibid). The population's growth is mainly driven by a high total fertility rate (TFR), estimated at 4.4 children per woman in 2015 (NSO and ICF International, 2016). Therefore, even though there has been a decline in the total fertility rate, under-five mortality rate, and maternal mortality ratio (MMR) (Table 1), the transition from high to low birth and death rates is moving at a slow pace for Malawi to reap the benefits of a Demographic Dividend⁶. One of the key reasons for high TFR is limited supply of family planning commodities. For example, even though 80 percent of the health facilities in Malawi offer modern methods of family planning, less than half of the facilities actually have all the methods they provide available (MoH and ICF International, 2014). This contributes to a high percentage of women aged 15-49 with unmet need for family planning estimated at 18.7 percent for currently married women and 39.8 percent for sexually active unmarried women (NSO and ICF International, 2016). Given the high fertility rate and large youth cohort, it is anticipated that Malawi will continue experiencing significant population growth as more and more youths enter the reproductive age, and this will weaken Malawi's economic growth prospects⁷. This is because high population growth increases total and child dependency which leads to a high demand for jobs, health and other social services which the economy cannot provide. For example, Malawi has a high total and child dependency burden estimated at 98 and 92 dependents, respectively, for every 100 working-age persons in 2015 (NSO, 2010). And while the number of youths entering the labour force has been growing rapidly, employment opportunities are few (NSO, 2014). As a result, overall youth unemployment⁸ estimated at 23 percent in 2012/13 is very high (ibid).

2.2 Health Service Delivery

13. During the past twenty-five years, Malawi has made significant progress in increasing coverage for key maternal, child health and nutrition services, leading to improvements in several health outcomes (Table 1). Notably, Malawi is among the 62 countries worldwide (and among the 11 countries⁹) which met the Millennium Development Goal (MDG) 4 target of a two-thirds reduction in under-five mortality rate between 1990 and 2015. Despite the attainment of MDG 4 in Malawi, progress was insufficient to reach MDG 5. As such, at 634 deaths per 100,000 live births in 2015, Malawi is estimated to have one of the highest MMR in the SSA region and in the world (WHO et al, 2015). Malawi is also one of the countries with a high prevalence of HIV, with 10 percent of the adult population or 1.1 million people living with HIV. With a TB prevalence rate of 363 cases per 100,000 population, Malawi is above the WHO threshold for TB emergency. In addition, 54 percent of TB patients with an HIV test are HIV positive and as such, Malawi is among the 41 priority countries for the global TB/HIV response (WHO, 2015d). On the other hand, HIV tops the list of the ten leading causes of years-of-life lost due to illness in Malawi followed by malaria which ranks second (GBD Collaborators, 2016a). HIV and malaria, ranked sixth and seventh, respectively, were also among the leading ten causes of years lived with disability in 2015 (GBD Collaborators, 2016b). Chronic malnutrition is also high with at least 37 percent of children under five suffering from stunting. Stunting is greater among children in rural areas (39 percent) than urban areas (25 percent); and higher among children in the lowest wealth quintile (46 percent) compared to those in the highest wealth quintile (24 percent) (NSO and ICF International, 2016).

⁶ The Demographic Dividend is a temporary opportunity for accelerated economic growth that is made possible by a sustained decline in birth and death rates, which leads to an increase in the ratio of working-age population relative to young dependents.

⁷ Teenage pregnancy (women 15-19 who have begun childbearing) was estimated at 29 percent in 2015/16 (NSO and ICF International, 2016)

⁸ Unemployment rates for youths age 15-34 years (broad definition)

⁹ The 11 countries are Egypt, Ethiopia, Eritrea, Liberia, Madagascar, Malawi, Mozambique, Niger, Rwanda, Uganda, and Tanzania.

Table 1. Health Outcome indicators – Malawi vs Low Income Countries

Health outcome/output	1990	2015	Low Income Countries (2015)	MDG Target for Malawi
Infant Mortality Rate (deaths per 1,000 live births)*	143	43	53	48
Under-five Mortality Rate (deaths per 1,000 live births)*	242	64	76	81
Maternal Mortality Ratio (deaths per 100,000 live births)**	957	634	495	239
Total Fertility Rate (No. of children per women) [#]	7	4.4 [^]	4.8 (2014)	
Prevalence of Stunting in children under-five (%)	48.7 ^{###} (1992)	37 [^]	37.6 [#] (2014)	
Prevalence of HIV (population 15-49 years) (%) [#]	8.8	10 (2014)	2.9 (2014)	

Data Sources: *United Nations Inter-Agency Group for Child Mortality Estimation (2015); **WHO et al. (2015); [#]World Development Indicators; ^{###}Malawi Demographic and Health Survey (MDHS) 1992; [^]MDHS 2015-16 Key Indicators Report

14. As outlined above, Malawi’s disease burden is significant. The 2013-14 Service Provision Assessment and the 2015-16 Demographic and Health Survey provide national and sub-national information on the availability, service coverage, and quality of services at health facilities in Malawi. Some of the underlying causes for the high disease burden in Malawi is low coverage and access to essential services coupled with poor quality for the services available. For instance, coverage for most of the key maternal and child health coverage indicators (national average of 53 percent¹⁰) is low except for births occurring in a health facility (91 percent) and births attended by a skilled provider (90 percent) (figure 1). Besides low coverage, there are also inequalities in service coverage by urban-rural setting (figure 1). And while the percentage of births occurring in a health facility (91 percent) and percentage of births attended by a skilled provider (90 percent) are high, the quality of antenatal and maternal delivery services are poor, which partially explains the high MMR (MoH and ICF International, 2014). The high percentage of women aged 15-19 who have begun childbearing (29 percent), and women aged 15-49 with anemia (33 percent) also contribute to the high MMR in Malawi (NSO and ICF International, 2016).

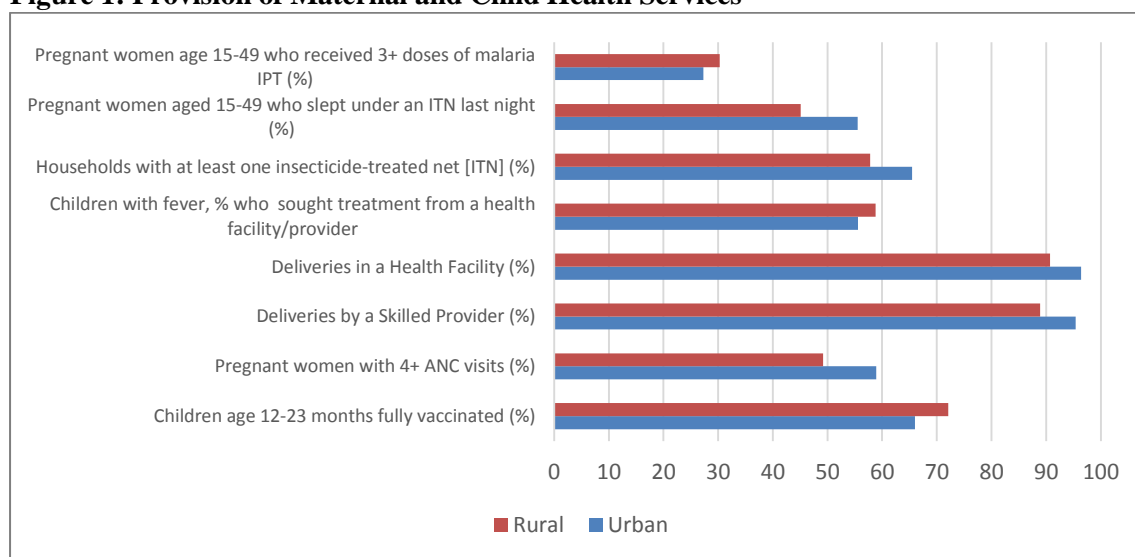
15. Significant health system bottlenecks limit service coverage and provision of quality health care. This includes: critical shortage of key health systems inputs (human resources, medicines and medical supplies, and poor/inadequate infrastructure); and poor governance and accountability (including poor public finance management). For example, in 2013/14, only 67 percent of the health facilities in Malawi had basic equipment; only 29 percent had basic laboratory diagnostic capacity; and only 41 percent of the health facilities reported adequate stocks of essential medicines (figure 2). Detailed analysis of the percentage of health facilities having all the 14 essential medicines available by managing authority shows that only 30 percent of the Government facilities were adequately stocked as compared to 53 percent of the health facilities managed by the CHAM (MoH and ICF International, 2014). With regards to human resources, the vacancy rate estimated at 70 percent is high and this increases staff workload. In other words, the number of skilled health personnel (doctors, clinical officers, nurses, and midwives) per 10,000 population was 5.2 in 2015 which is far below the WHO recommended 23 skilled health workers per 10,000 population (figure 2). Shortage of essential drugs and health workers compromises quality.

16. Gaps in service coverage and poor quality of service are symptomatic of a poorly financed and/or inefficient health system. Some of the bottlenecks in the health system could be a result of

¹⁰ The national average of 53 percent was for the following indicators: Children age 12-23 months fully vaccinated, Pregnant women with 4+ ANC visits, Children with fever who sought treatment from a health facility/provider, Households with at least one insecticide-treated net (ITN), Pregnant women aged 15-49 who slept under an ITN last night, and Pregnant women age 15-49 who received 3+ doses of malaria IPT

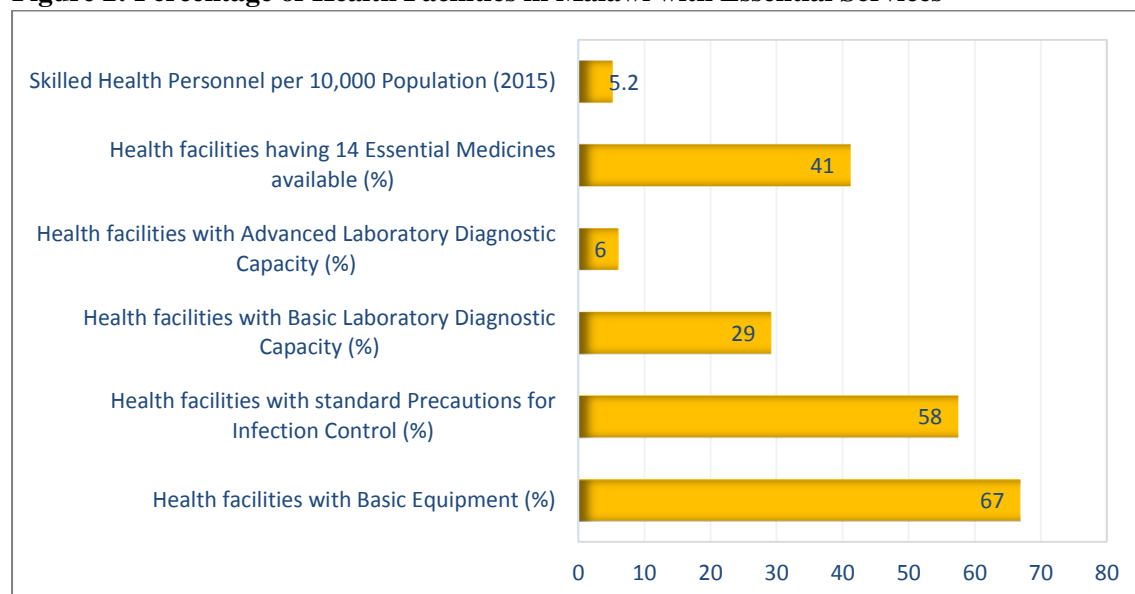
inadequate funding i.e. only 13 percent of the government health budget is allocated to drugs and medical supplies, far below the spending norms in other African countries which is estimated at 33 percent (Bennett et al. 1997). Inadequate spending on health has also prompted the Malawian government to explore the introduction of fee-paying wards and bypass fees at secondary and tertiary hospitals but this move has generated resistance from civil society groups who argue that such payments are having a catastrophic impact on the poor (Oxfam, 2016). However, inefficiency is also high and reduces the total amount of financial resources available to adequately finance the health system and produce better health outcomes. As a consequence, the health sector is currently not able to deliver on key policy commitments of access and affordability as enshrined in the country's Constitution which postulates to “provide adequate health care, commensurate with the health needs of Malawian society and international standards of health care”.

Figure 1: Provision of Maternal and Child Health Services



Data Sources: NSO and ICF International (2016)

Figure 2: Percentage of Health Facilities in Malawi with Essential Services¹¹



Data Sources: MoH and ICF International (2014); MoH Human Resources Data

2.3 Macro-Fiscal Situation

17. Agriculture is the main source of Malawi’s economic growth contributing about 29 percent of Gross Domestic Product and over 76 percent of total export earnings in 2015¹². The country’s annual real Gross Domestic Product (GDP) growth averaged 7 percent between 2006 and 2010, but slowed down to 1.9 percent in 2012 triggered by a sharp devaluation of the exchange rate, sporadic fuel shortages, and a rise in inflation by almost 35 percent. The pace of growth picked up afterwards reaching 5.7 percent in 2014 but with adverse weather conditions and macroeconomic instability, Malawi recorded a GDP growth rate of 2.8 percent in 2015. Prospects for 2016 remain subdued with a projected growth of 2.5 percent with a second consecutive year of climatic shocks. Real per capita GDP has also seen minimal improvements over the years, rising from US\$241.5 at independence¹³ to US\$494.4 in 2015. Inflation rate, driven by both food and non-food components, is significantly higher than the regional average. In 2015, the economy registered an annual average rate of 21.9 percent, the fourth year for which Malawi has recorded a double digit rate and above 20 percent. The year-on-year headline inflation rate in September 2016 stood at 21.2 percent, compared to 24.1 percent in September 2015.

18. Poverty levels have been consistently high, particularly in rural areas. For example, rural poverty based on national measurements grew from 55.9 percent in 2004/05 to 56.6 percent in 2010/11, compared to 25 percent in urban areas in 2010/11 (NSO, 2012). World Bank estimates using a poverty line of US\$1.90 per day classified 69.9 percent of the population as poor in 2015. With over half of its total population living in poverty, Malawi is ranked poorly on the United Nations Human Development Index standing at 173 out of 188 countries in 2014.

19. Weak public financial management has undermined accountability and transparency in the use of public resources, and has been a core driver of Malawi’s macroeconomic instability. Over

¹¹ The **14 essential medicines** are: Amitriptyline, Amoxicillin, Atenolol, Captopril, Ceftriaxone, Ciprofloxacin, Cotrimoxazole, Diazepam, Diclofenac, Glibenclamide, Omeprazole/Cimetidine, Paracetamol, Salbutamol, and Simvastatin/Atorvastatin. The **advanced laboratory tests** are: Serum electrolytes, Full blood count with differentials, Blood typing and cross matching, CD4 count, Syphilis serology, Gram stain, Stool microscopy, CSF/body fluid counts, TB culture, TB rapid diagnostic test. Capacity to perform **basic laboratory tests** includes: general microscopy and tests of the levels of haemoglobin, blood glucose, urine protein, and urine glucose. **Standard precautions for infection control** is the availability of sterilisation equipment, appropriate storage and disposal of sharps and biological waste, soap and running water (or alcohol-based hand rub), latex gloves, and guidelines for standard precautions. **Basic equipment includes:** Adult scale, child scale, infant scale, thermometer, stethoscope, blood pressure apparatus, and light source

¹² Ministry of Finance, Economic Planning and Development

¹³ World Development Indicators, GDP per capita (Constant 2010 US\$)

the recent years, the national budget has come under immense pressure with reduced levels of foreign financing as development partners have withdrawn support disbursed through the Government system. This is in light of revelations of misappropriation of public funds through fraudulent transactions carried out in the government's Integrated Financial Management Information System (IFMIS) in September 2013. Consequently, private sector confidence and the country's global reputation have deteriorated. Following the withdrawal of budget support, Government has persistently run large fiscal deficits. Spending pressures have risen from increasing debt service costs; a rising public sector wage bill; costly subsidy schemes; and the need to settle outstanding arrears. For example, the public sector wage bill as a share of GDP increased from 5.7 percent in 2012/13 to 6.4 percent in 2016/17, and this raises questions on the sustainability of the public sector wage bill (World Bank, 2017). To finance fiscal deficits, authorities have borrowed heavily from domestic sources. This has exerted an upward pressure on inflation and lending rates, crowding out private sector investment. For example, by November 2016, overall revenues and grants were estimated at 20.2 percent of GDP, and expenditures at 24.4 percent of GDP (Table 2). Domestic revenue were estimated at 17.9 percent of GDP of which 16.1 percent was from taxes and 1.8 percent from non-taxes. Grants were estimated at 2.3 percent of GDP mostly from project and dedicated grants.

20. The financing gap continues to be met through long-term, highly concessional foreign project loans, with the Government now striving to control its domestic borrowing. By November 2016, the fiscal deficit was estimated at 4.3 percent of GDP. Meanwhile, Malawi's level of debt has also increased significantly in recent years. The total value of the public debt at the end of 2015 was estimated at 53.8 percent of GDP. Of this amount, the total value of external debt stood at 37.0 percent of GDP whilst the value of domestic debt was 16.8 percent of GDP. With increases in both domestic and external debt, the cost of servicing the debt is also high. And although the total stock of external debt is higher than that of domestic debt, the cost of servicing external debt is much lower, due to the highly concessional terms on which most of Malawi's foreign debt is contracted.

Table 2: Macroeconomic, Fiscal, and Health Financing Indicators: Malawi 2012-2016

	2012	2013	2014	2015	2016
Macroeconomic Indicators					
Nominal GDP USD (millions)	6,028.49	5,518.88	6,047.81	6,565.38	
Real GDP USD, 2010 base (millions)	7,435.10	7,821.72	8,267.56	8,511.45	
GDP per capita, constant 2010 USD	473.6	483.1	495.2	494.4	
Real GDP growth rate (%)	1.9	5.2	5.7	2.8	2.5
Inflation (annual %)	21.3	27.3	23.8	21.9	
Unemployment Rate		6.4			
Fiscal Indicators					
Gross Debt (% of GDP)*	40.2	50.6	48	53.8	52.1
Deficit (including grants) % of GDP^	-4.8	-0.5	-5.7	-5.7	-4.3
Total Government Revenue (% of GDP)^	18.7	27.5	23.2	21.4	20.2
Domestic Revenue (% of GDP)^	15.6	17.3	19.7	18.7	17.9
<i>Tax revenue (% of GDP)^</i>	13.7	15.7	17.3	16.3	16.1
<i>Non-tax revenue (% of GDP)^</i>	1.9	1.6	2.4	2.4	1.8
Total Government Spending (% of GDP)^	23.5	28	28.9	27.1	24.4
Health Financing Indicators**					
Total Health Expenditure per capita (average US\$ ex. rates)	39.3	43.5	37.6	39.2	
Donor Health Expenditure per capita (average US\$ ex. rates)	29.9	30.8	24.5	21.7	
Government Health Expenditure per capita (average US\$ ex. rates)	6.3	9.7	9.3	11.2	
Total Health Expenditure (THE) % of GDP	9.0	11.6	11.3	11.1	
Government Health Expenditure % of GDP	1.8	2.8	2.5	2.9	
Government Health Expenditure % of THE	16.1	22.3	24.6	28.6	
Government Health Expenditure % of Total Government Expenditure	6.2	10.9	9.5	10.8	
Household Expenditure % of THE	10.5	6.8	8.3	10.9	

*Data Sources: World Development Indicators except for: *Malawi Debt Sustainability Analysis;*

[^]World Bank MFMOD; ^{**}Malawi National Health Accounts (MoH 2014; 2016b). Expenditure refers to the actual amount of money spent.

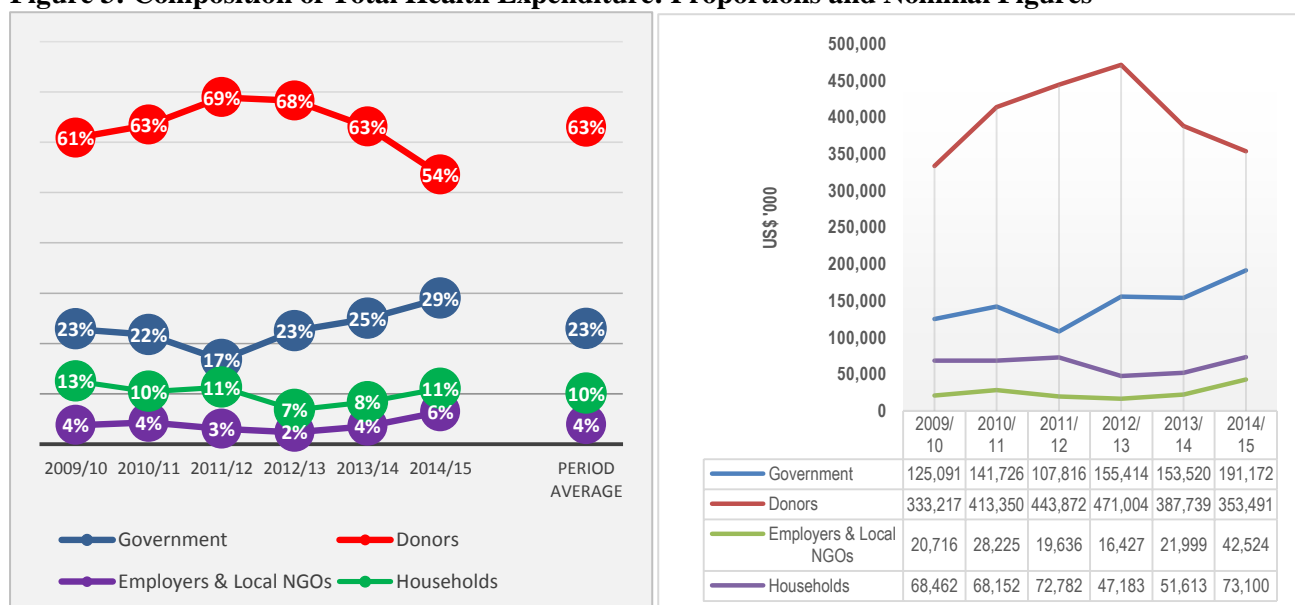
2.4 Health Financing

21. Total health expenditure in Malawi increased by 29 percent from about US\$520 million in 2009/10 to about US\$670 million in 2014/15 (MoH 2104; 2016b). However, in per capita terms, total health expenditure (US\$ at average ex. rate) was equivalent to US\$39.2 per annum¹⁴ in 2014/15 which is significantly below the average of US\$98 in SSA (excluding South Africa); and the average of US\$147 in the Southern African Development Community (SADC) region. Health financing in Malawi is predominantly donor dependent, and over the period 2009/10-2014/15, development partners made the largest contribution to total health expenditure at an annual average of 63 percent, followed by Government at 23 percent, Households at 10 percent, and Employers and Local NGOs at 4 percent (figure 3). In comparison with countries with the same level of income and those in SSA, external financing on health as a proportion of total health expenditure in Malawi is higher (Table 3). In per capita terms, total donor health expenditure was on average US\$27 per capita per annum over the period 2009/10-2014/15, as compared to Government total health expenditure which was only US\$9 per capita per annum over the same period. This suggests that the bulk of health programmes in Malawi are donor financed, and this renders health financing unsustainable and vulnerable to internal and external shocks. For example, following revelations of financial mismanagement (known as the “Cashgate scandal”) in 2013, several donors contributing to the health sector through the pooled funding mechanism (including sector budget support) suspended/withdrew their funding. This contributed to a considerable drop in donor expenditure as a proportion of total health expenditure from 63 percent in 2013/14 to 54 percent in 2014/15 (figure 3).

22. The Government, Employers, Local NGOs, and Households have responded to the reduced funding by donors by increasing their expenditures but their contribution is inadequate. Consequently, the health sector in Malawi is currently faced with liquidity problems, fragmentation of funding, and reduction in programme implementation. While it was expected that Donors who stopped channeling funds through the pooled funding mechanism would use alternate funding mechanisms, evidence from Figure 3 suggests that the level of donor financing has declined. Considering that measures to tighten fiduciary control systems and to regain donor confidence takes time, Malawi’s health programme could be at risk if alternative measures to mobilize additional domestic resources are not implemented urgently. As a matter of fact, even before the Cashgate scandal, health financing in Malawi has been problematic and it had been recommended that Malawi needs to identify and implement alternative options to finance the health sector (MoH, 2014).

¹⁴ Malawi has an Essential Health Package (EHP) which was costed at US\$44.4 per capita in 2011. The EHP contains a total of 11 key public health interventions to address the most common causes of mortality and morbidity in Malawi in a cost-effective manner. Given that total health expenditure per capita was estimated at US\$39.4 in 2014/15, some scholars argue that is reflective of a financing gap since the EHP is design to cater for a limited number of interventions. i.e. the US\$44.4 per capita outlined in the EHP should be a subset of the total health expenditure per capita (US\$39.4).

Figure 3: Composition of Total Health Expenditure: Proportions and Nominal Figures



Data sources: Malawi National Health Accounts (MoH 2014; 2016b). Expenditure refers to the actual amount of money spent.

Table 3: Health Expenditures: Malawi vs Sub-Saharan Africa and Low Income Countries - 2014

	Govt. Health Expenditure (% of Total Govt. Expenditure)	Govt. Health Expenditure (% of GDP)	External Funding on Health (% of Total Health Expenditure)	Total Health Expenditure (% of GDP)	Total Health Expenditure per capita (average US\$ ex. rate)
Low income*	10.2	2.4	28.3	5.8	37.1
Sub-Saharan Africa** (excl. high income)	10	2.3	11.2	5.5	97.6
Malawi [^]	10.8	2.9	54.0	11.1	39.2

Data sources: *WHO Global Health Expenditure Database; **World Development Indicators; [^]Malawi National Health Accounts (MoH 2016b). Expenditure refers to the actual amount of money spent.

3. FISCAL SPACE ANALYSIS

23. The MoH in Malawi has made a commitment to achieve Universal Health Coverage (UHC) by ensuring that services in the Essential Health Package (EHP) are available to all Malawians (MoH, 2011). Government's desire to achieving UHC is also enshrined in the Republican Constitution which commits "to provide adequate health care, commensurate with the health needs of the Malawian society and international standards of health care." However, commitment to UHC is being threatened by a health sector financing crisis in the country (Oxfam, 2016). For example, for a while now, Malawi has substantially depended on donors to fund health services but the level of support is currently dwindling. Low public spending on health results in high out-of-pocket (OOP) spending which in turn, imposes financial barriers to accessing healthcare services and exposes individuals and households to the potential for catastrophic expenditures when illness occurs (McIntyre and Kutzin, 2016). Recent experiments by the government to scale up paying services and introduce bypass fees in secondary and tertiary hospitals have generated resistance, led by civil society groups who are arguing that such payments are having a catastrophic impact on the poor (Oxfam, 2016).

24. An important goal of UHC is to increase public spending on health so that there is less dependence by the population on OOP payments to fund health services (McIntyre and Kutzin, 2016). In this context it becomes imperative that the limited resources are used most effectively to attain the best possible outcomes for the country. It is important that the country engages in a continuous process of priority-setting, which refers to a systematic approach to distribute resources among competing demands to deliver a combination of activities and health programs that can be afforded by the limited budget (Hauck et al. 2004). The country should also mobilize additional public revenues in general, which would allow it to spend more money on public services and programs, including health, a concept termed as fiscal capacity (ibid). However, the possibility of allocating a greater share of resources to the health sector is affected by the existing fiscal space, which refers to the ability of the government to devote more resources to the health sector without threatening the sustainability of its financial position (Heller 2005). When the overall government budget is not growing, it becomes increasingly difficult for the health sector to secure a greater share of expenditure as doing so will imply a decrease in spending on other sectors.

25. This section examines the potential for increasing fiscal space for health in Malawi using an established framework for assessing fiscal space in the health sector (Tandon and Cashin, 2010). This framework covers five pillars namely:

- i. *Conducive macroeconomic conditions* including increased economic growth and overall government revenue with possibilities of increased government expenditure on health;
- ii. *Re-prioritization* of health within the government budget;
- iii. *Generating additional resources for the health sector* through earmarked taxes, health insurance, etc;
- iv. *Increased health sector-specific foreign aid*; and
- v. *Improved efficiency* in the government allocation and expenditure.

3.1 Conducive Macroeconomic Environment

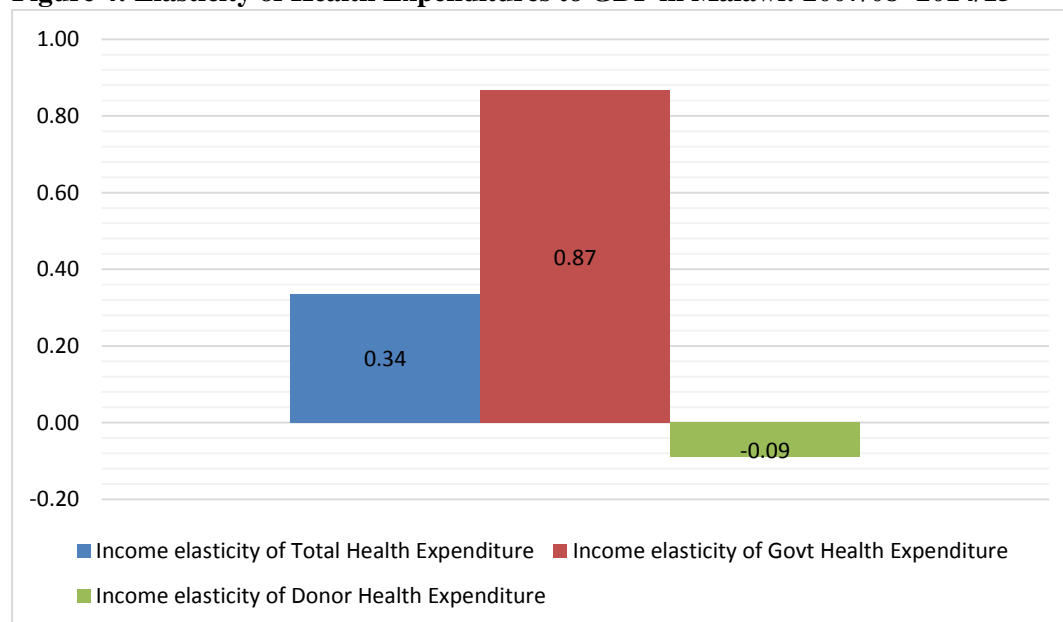
26. From a macro-fiscal perspective, prospects for additional public resources for health are limited (Section 2, Table 2). The country's annual real GDP growth averaged 7 percent between 2006 and 2010, but dropped to 1.9 percent in 2012, rose to 5.7 percent in 2014, and then dropped to 2.8 percent in 2015. Real GDP growth for Malawi is projected at 2.5 percent in 2016, 4.2 percent in 2017, and 4.5 percent in 2018¹⁵. Over the past five years, Malawi's fiscal situation has also deteriorated rapidly, leading to a fiscal deficit of 4.3 percent of GDP by November 2016; total public debt of 52.1 percent of GDP as at November 2016; and resurgent food and non-food inflation estimated at 27.0 percent and 15.9 percent, respectively, as at September 2016. While increases in GDP have generally

¹⁵ World Bank staff estimates using MFM0d

led to increased government health spending, responsiveness of government health expenditure to GDP growth over the period 2007/08-2014/15 was less than unitary. For example, over the period 2007/08-2014/15, the elasticity of government spending with respect to GDP growth in Malawi is estimated at 0.87 (figure 4). This means that on average, a 1 percent increase in GDP growth yields a 0.87 percent increase in government health spending. Considering that the elasticity of government spending to GDP growth is estimated at 1.16 on average for low-income countries (Tandon and Cashin, 2010), responsiveness of government expenditure to GDP growth in Malawi is relatively low.

27. At 16.1 percent of GDP, tax revenue as a percentage of GDP in Malawi is above the average of 15.8 percent for SSA (excl. high income countries). While this performance is good, an arbitrary but often suggested benchmark is for the share of tax revenue to GDP to be 20 percent. If this happens, existing evidence suggests that an additional \$US28 per capita per annum could be raised by low income countries such as Malawi¹⁶. But tax shares of 20 percent of GDP may be difficult to achieve given the limited tax administrative capacity in Malawi. Tax administration is relatively inefficient and this contributes to a narrow tax base, high taxation, and low revenue yield. For example, in comparison to its neighbours and other low-income countries, Malawi depends heavily on income taxes (IMF 2016a). To remedy the situation, the Malawian Government is in the process of reviewing the tax system with the aim of broadening the tax base, rationalising tax incentives, improving the tax refund system, harmonizing tax administration procedures, and introduction of a tax appeals tribunal to expedite resolution of tax disputes (MoFED, 2016). The proposed tax reforms are in line with the requirements of the 2012 Extended Credit Facility from the IMF which implores the Malawian government to increase revenues to a minimum of 1–1.5 percent of GDP over a 3–5 year period. If these revenue gains are realized, and assuming that the health share of the government budget either increases or remains at the current 10 percent, this could potentially lead to additional fiscal space for health. However, given the current weak macro and fiscal position in the country, the degree to which economic growth can be translated into increased resources for health in Malawi is limited.

Figure 4: Elasticity of Health Expenditures to GDP in Malawi: 2007/08- 2014/15



Data sources: MoH, 2014; and MoH, 2016b

¹⁶Background Paper for the First Universal Health Coverage (UHC) Forum: Raising Funds for Health

3.2 Re-prioritization for Health

28. Government health expenditure¹⁷ as a percentage of total government expenditure grew from 6.9 percent in 2009/10 to 10.8 percent in 2014/15 (period average 8.5 percent). The 2014/15 figure is below the Abuja target of 15 percent but comparable to the SSA average of 10 percent and low income countries' average of 10.2 percent (Table 3). This suggests that the Malawian Government is performing relatively well in this aspect. However, comparing the share of Government spending on health with other key sectors (figure 5), shows higher expenditure shares in the education and agriculture sectors; ranging from 12-18 percent (period average of 15 percent) and 13-22 percent (period average of 16.6 percent) of total government expenditure, respectively, over the period 2009/10 and 2014/15. This suggests that the share of Government expenditure on Education in Malawi is relatively similar to the spending norms in low income countries and the SSA region, estimated at 16.7 percent and 16.6 percent, respectively¹⁸. On the other hand, the share of Government expenditure on Agriculture in Malawi is more than twice the SSA average of 6.3 percent, and three times more than the African average of 5 percent (Fan et al. 2009). The share of Government expenditure on Agriculture in Malawi is also far above the 10 percent Maputo target (ibid). This is no surprise, however, given the importance of agriculture to economic development in Malawi. As stated earlier, agriculture is the main source of Malawi's economic growth contributing about 29 percent of Gross Domestic Product and over 76 percent of total export earnings in 2015¹⁹. Therefore, growth in agriculture provides a key means for poverty reduction, good health and nutrition, and overall economic growth. Furthermore, the high expenditure on agriculture could also be attributed to increased expenditure on the humanitarian crisis due to consecutive years of adverse weather conditions (World Bank, 2017).

29. Government and Total Health Expenditures as a share of GDP at 2.9 percent and 11.1 percent, respectively, are above the average for low-income countries and SSA (figure 6). More importantly, in Malawi, GDP growth is associated with increased government health spending as demonstrated in Figure 4 above. However, Government's contribution to total health expenditure in absolute terms is low. For instance, Government per capita health expenditure (in nominal terms) only increased from US\$9.0 in 2009/10 to US\$11.20 in 2014/15. In other words, Government's contribution to the US\$39.2 per capita total health expenditure in 2014/15 was less than one-third. The bulk of the financial resources in the health sector in Malawi are provided by external development partners who contributed an average of US\$27 per capita per annum over the period 2009/10-2014/15. Nonetheless, 62 percent of the external resources are earmarked for the provision of HIV/AIDS, Malaria, and Reproductive Health (RH) services which makes it difficult to re-prioritize (MoH, 2016b); and to fund other components of the EHP.

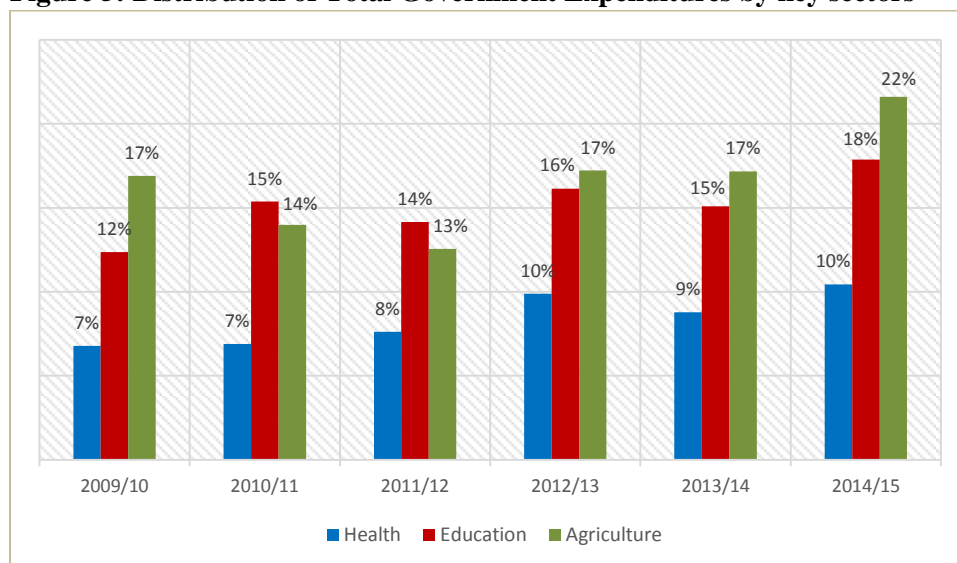
30. Our analysis suggests that Government spending on health is already high, and it would be difficult to re-prioritize the Government budget given the unfavourable macro-fiscal environment and competing demands from other sectors. With a low GDP per capita (US\$494.40 in 2014/15), Government per capita health spending in absolute terms (US\$11.20 in 2014/15) is also low but in line with Government's spending capacity. As highlighted in Section 2, Government continues to run a large fiscal deficit with expenditure under pressure due to a rising cost of debt service, increasing wage demands, high cost subsidy schemes, and the need to settle outstanding arrears. Henceforth, prospects for increasing fiscal space for health by increasing the share of the Government budget on health seems limited in the short-to-medium term. And while external financing is the largest source of financing in the health sector, a large amount is already earmarked for three diseases leaving the other components of the health system largely unfunded.

¹⁷ This refers to the actual amount of domestically generated government resources spent on health

¹⁸ Statistics obtained from World Development Indicators

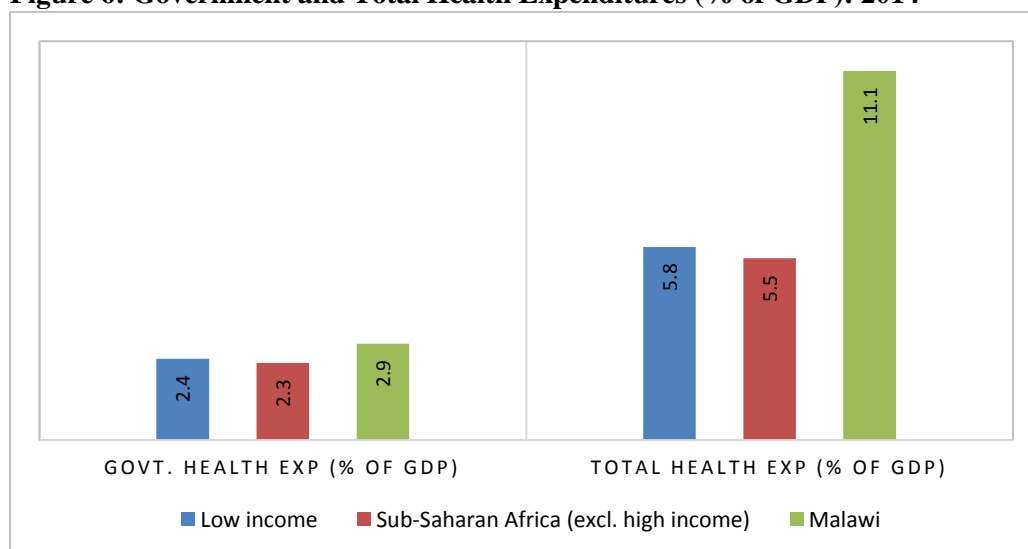
¹⁹ Ministry of Finance, Economic Planning and Development

Figure 5: Distribution of Total Government Expenditures by key sectors



Data Source: Ministry of Finance. Expenditure refers to the actual amount of money spent.

Figure 6: Government and Total Health Expenditures (% of GDP): 2014



Data Sources: Malawi data was obtained from Malawi's National Health Accounts (2016b). Other data from WHO Global Health Expenditure Database

3.3 Generating Additional Resources for Health

31. The GoM has instituted some health reforms aimed at increasing access to quality services through increased domestic financing to the health sector, service availability, and equity. The process consists of four reforms as follows: (1) Establishing a health insurance scheme; (2) Creating a Health Fund; (3) Decentralizing district and central hospital level service provision; and (4) Reviewing institutional arrangements between the GoM and CHAM. To date, the feasibility of establishing a Health Fund has been reviewed and finalised as documented in the later parts of this document. Our analysis shows that additional money could potentially be raised for health from a dedicated medical levy on fuel through the existing rural electrification and fuel storage levies, and introduction of a tax on motor vehicle insurance (Table 10, Section 5). If all the viable earmarked taxes are introduced as analyzed in the later parts of this paper, an additional US\$0.63 per capita per year could be raised over the period 2016/17 to 2021/22. However, this amount would only make a small contribution to expanding financing for health.

32. Regarding the proposed establishment of a national Social Health Insurance (SHI) scheme in Malawi, the prevailing demographic, macro-economic, and employment situation are unfavourable. Firstly, a large share of the total employed persons in Malawi (89 percent) is engaged in informal employment (NSO, 2014). Given that SHI is often contributory, whereby both employees and employers pay premiums towards the SHI scheme through mandatory payroll deductions, evidence shows that collecting contributions from the informal sector is often difficult (Wagstaff, 2007). Therefore, people working in the informal sector in Malawi who are mainly associated with low wages, low productivity, and poverty may not enroll in the SHI scheme due to lack of finances. Other studies also show that informality increases when social protection programs such as SHI are introduced. Secondly, wages in the formal sector are low (mean and median wages of US\$113 and US\$37, respectively, (NSO, 2014)), with some studies further suggesting that the real average wages are actually more than 50 percent lower in value (DTUC, 2015). Low wages in the formal sector also make it hard for the majority of Malawians to meet monthly expenses. For example, 40 percent of Malawians have just enough income to meet expenses, 13 percent need to supplement their incomes with savings to meet expenses, and 27 percent need to supplement their incomes with borrowed money to meet expenses (NSO, 2012). Consequently, Malawi has a large pool of “working poor” and the smallest middle classes in SSA, with only 4 percent living for US\$2-4 a day and 5 percent for US\$4-20 a day, compared to the SSA average of 14 percent who live for US\$2-4 a day and 10 percent for US\$4-20 a day (DTUC, 2015). Lastly, considering that the SHI scheme would need to be supplemented with additional resources beyond the contributions from the employers and employees, the government may not have means to raise additional money from alternative means.

33. Given the above, there is limited potential for health insurance growth in Malawi. Health insurance as a proportion of Total Health Expenditure was estimated at 3.3 percent in 2014/15 (MoH, 2016b), and by the end of 2015, only 1.2 percent²⁰ of the Malawian population had any form of health insurance cover through private health insurance, corporate, and other risk-pooling schemes. In summary, our analysis supports the views of the MoH (2014) which identified the small size of the formal sector, low wages in the formal sector, widespread poverty in the general population, and predominance of the “free public health care system” as the main factors inhibiting the growth of the health insurance market in Malawi.

3.4 Increased Health Sector-specific Foreign Aid

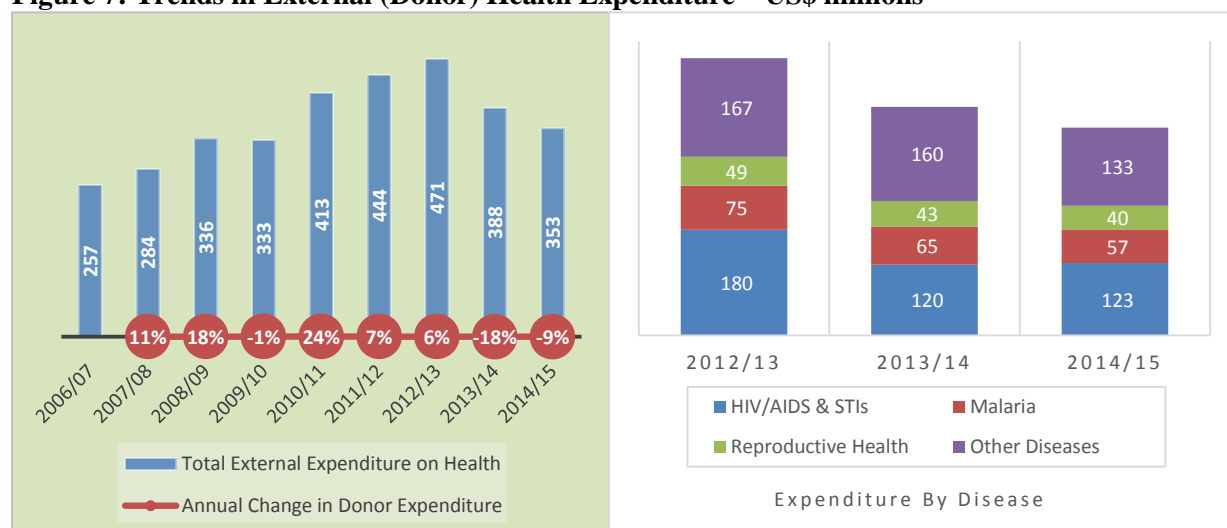
34. The health sector in Malawi has over the years been reliant on external financing but this support has been declining over the years particularly after the Cashgate scandal. External financing as a share of Total Health Expenditure (THE) rose from 61 percent in 2009/10 to 69 percent in 2011/12 after which it started declining (figure 3). From 2012/13 onwards, the proportion of external financing to THE has been declining consistently but the most notable decline was recorded post Cashgate from 63 percent in 2013/14 to 54 percent in 2014/15 (figure 3). In absolute terms, external financing declined by 18 percent in 2013/14 and 9 percent in 2014/15 (figure 7) which represents a total reduction of US\$118 million or an annual average of US\$3.7 per capita between 2013/14 and 2014/15. At macro level, there has also been a loss of budget support and reduced confidence in the use of Government systems. Given the low levels of on-budget foreign financing at levels previously available to Government, authorities continue to borrow heavily from domestic sources to close the gap. This creates risk of further pushing up inflation and lending rates, crowding out private sector investment and constraining economic growth. As most of the public health commodities are externally financed, Malawi is exposed to high dependence and vulnerability to external shocks (World Bank, 2013). Examples are in 2011/12 when the donors only released 25 percent of the pledges following the global financial crisis, and a decline in external financing in 2013/14 and 2014/15 after the Cashgate scandal.

²⁰ Authors' calculation based on annual subscriptions through the Medical Aid Society of Malawi and Metropolitan Health Malawi which have over 95 percent of the health insurance market in Malawi. These schemes mostly cover formal sector employees in parastatals and industrial companies; groups; individuals; and families. Informal sector workers and the general population rely on the public health service, traditional healers, and out of pocket payments.

35. The other challenge is that the bulk of external resources are earmarked for the provision of HIV/AIDS, Malaria, and Reproductive Health (RH) services which makes it difficult to re-prioritize (figure 7). HIV/AIDS (35 percent), Malaria (16 percent), and RH (11 percent) consumed an average of 62 percent of the total external health expenditure between 2012/13 and 2014/15 (MoH, 2016b); and this creates rigidities in resources allocation. In particular, earmarking donor funding to disease programmes reduces government’s flexibility in resource allocation, and ability to re-prioritize funding to emergent needs. In addition, donor resources are uncertain and commitments are made for short periods and this makes it difficult to implement sustainable long-term strategies. Furthermore, a large amount of financial resources in the health sector (45 percent) are managed by development partners and NGOs (Table 4).

36. Our analysis suggests that external financing for health in Malawi is already high and chances of further expansion are limited on account of the declining trend in recent years. In particular, external financing declined by US\$118 million in two years or annual average of US\$3.7 per capita over the period 2013/14-2014/15. Therefore, given the importance of external financing to Malawi, emphasis should be on mitigating further decline in external financing.

Figure 7: Trends in External (Donor) Health Expenditure – US\$ millions



Data source: Malawi National Health Accounts (2016b). Expenditure refers to the actual amount of money spent.

Table 4: Financing Agents by share of Total Health Expenditure

	2012/13	2013/14	2014/15	Average
Government	48%	42%	41%	44%
Donors and NGOs	44%	47%	45%	45%
Households	7%	8%	11%	9%
Other	2%	3%	3%	3%

Data source: Malawi National Health Accounts (MoH 2014; 2016b).

3.5 Improved Efficiency in the Health Sector

37. In several countries, a huge amount of health expenditure is lost due to waste and other forms of inefficiency. Achieving more with the available resources can lead to increased coverage, provision of quality health care, financial protection, and improved health outcomes²¹. To understand the status of efficiency in the health sector in Malawi, we conducted a comprehensive literature review

²¹ Background paper – Second Annual UHC Financing Forum

of studies on efficiency in Malawi. Based on the results from the literature review, we then calculated the total potential per capita efficiency saving for Malawi covering all the four (4) main sources of inefficiencies in the health sector²². This analysis was done using Chisholm and Evans' (2010) framework for analyzing efficiency. However, given the considerable uncertainty associated with using global estimates when calculating the cost of health sector inefficiencies, this analysis only indicative. A dedicated study should be conducted to examine in detail, sources of inefficiencies, ways of addressing them, and potential savings. Priorities for further analysis of efficiency could include: health financing and health systems organization, drug supply and use, and health services provision.

38. Malawi is widely acknowledged in the literature as a good performer in maternal and child health coverage; and financial protection despite its low level of per capita public spending on health (Jowett et al. 2016). Other scholars further observe that programmatic focus on the most cost-effective interventions have contributed to improvements in child health outcomes in Malawi (Kanyuka et al. 2016; World Bank; 2013). However, other studies have highlighted significant inefficiencies in the health sector in Malawi which could be addressed to increase fiscal space. This includes the 2009/10–2011/12 and 2012/2013–2014/2015 National Health Accounts (NHA) surveys, the 2013 Public Expenditure Review, HIV/AIDS efficiency studies, hospital efficiency studies, and a dedicated analysis on Health Sector Efficiency in Malawi by Carlson et al. (2014).

39. Part of the underlying causes for inefficiencies in the health sector in Malawi is lack of compliance to the rules and systems governing the management of public funds (Carlson et al. 2014). For example, there have been several cases of corruption and mismanagement of funds in the health sector (i.e. the 2013 Cashgate scandal), and pilferage of medicines. Other analyses highlight several allocative and technical inefficiencies which can be attributed to the absence and/or inadequate use of a needs-based resources allocation formula, low budget execution, and continued use of an input based financing mechanism rather than an output based financing mechanism (MoH, 2014; World Bank, 2013). For example, analysis of the Government health budget by factors of provisions shows that the allocation to wages (including salaries and other personal emoluments) was 49 percent on average over the period 2009/10-2016/17 (figure 8). For the overall public sector, the wage bill as a share of GDP increased from 5.7 percent in 2012/13 to 6.4 percent in 2016/17, and this raises questions on its sustainability (World Bank, 2017). Increase in the public sector wage bill could be as a result of an increase in the number of public workers from 111,000 in 2008 to 186,000 in 2016; and weaknesses in establishment and personnel controls which have made the payroll vulnerable to fraud (ibid).

40. Allocation to drugs and medical supplies averaging 13 percent between 2009/10 and 2016/17 is far below the spending norms in other African countries. Bennett et al. (1997) show that expenditure on drugs as a percentage of total government health spending in Africa is about 33 percent. Furthermore, the percentage of Government recurrent expenditures attributable at district level increased from 48 percent in 2010/11 to 60 percent in 2014/15; while there was a decline at Central Hospitals from 15 percent in 2010/11 to 9 percent in 2014/15; and at MoH headquarters from 37 percent in 2010/11 to 31 percent in 2014/15. The underlying cause of these inconsistencies in the allocation of resources is due to of lack of an optimal resource allocation formula.

41. An assessment of technical efficiency at 40 district-level public and mission hospitals in Malawi shows that only 27.5 percent of the hospitals had desirable bed turnover ratios (patients per bed), and bed occupancy rates (Asbu et. al., 2012). And despite a large number of hospitals having a low bed density, there is a gross underutilization of the existing supply of inpatient beds, with public primary level hospitals performing better in comparison to mission hospitals (ibid). This could be attributed to demand-side barriers (e.g. financial, geographical, or cultural) that negatively influence the utilization of hospital services (World Bank, 2013). Absence of equipment, health workers, and drugs could also explain the low utilization of hospitals and other health facilities in Malawi (ibid). At disease level, studies analyzing the delivery of the HIV/AIDS programme in Malawi suggests that 11 percent of the current expenditure on HIV/AIDS could be saved with improved efficiency in HIV/AIDS

²² The areas are: Health care workers, Hospital services, Health system leakages, and Health care services

spending (Kardan et al. 2012). Specifically, efficiency gains could be made by streamlining service delivery modalities in the provision of ART, HIV Counselling and Testing, and ANC and laboratory services (World Bank, 2015).

42. As observed from the literature review above, improving efficiency of health spending in the health sector in Malawi is paramount given that most of the alternative avenues for increasing fiscal space for health are limited. Using Chisholm and Evans' framework for analyzing efficiency, we calculated the total potential per capita efficiency saving for Malawi. This was done by multiplying the estimated minimum low-income group potential efficiency saving rates (as a percentage of total health spending) by the 2014/15 total per capita health expenditure for Malawi. The low-income group potential efficiency saving rates were adopted from Chisholm and Evans (2010). These results are presented in Table 5, and they show that it is probable to raise US\$10.6 per capita per annum through efficiency improvements. This is more than the US\$0.63 per capita per annum that could be raised if the targeted earmarked taxes for health are introduced. Evidence from other studies on expected efficiency savings in Africa show a median potential efficiency gain of US\$8 per capita per annum (Mathonnat cited by Barroy et al. 2016).

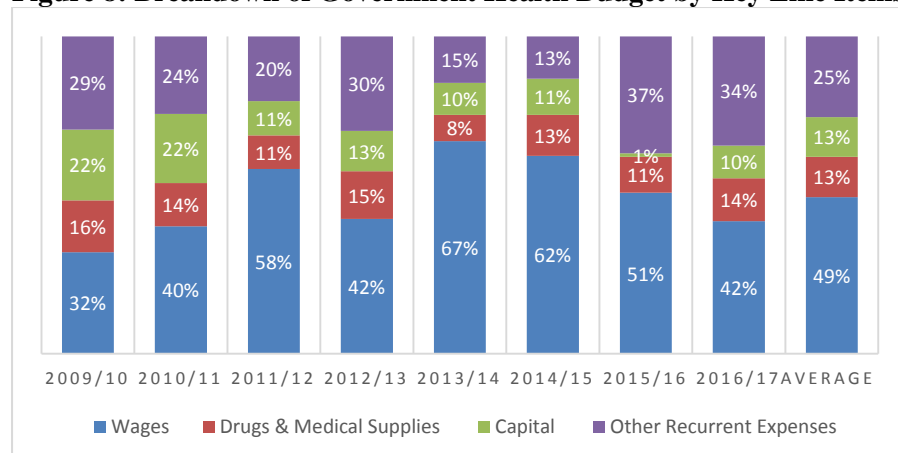
43. The other way of assessing efficiency in resource utilization is by reviewing budget performance or execution by looking at compliance to disbursing budgeted resources on time and according to the allocated amounts. A study by the World Bank (2017) shows low predictability and execution of the government budget due to diminishing resources at macro level, and persistently large fiscal deficits. To further validate these findings, we reviewed the performance of the public budget over the period 2011/12-2015/16, and observed that at national level expenditures have been above the budget except for 2015/16. On the other hand, recurrent public health expenditures over the same period have been below the budget except for 2012/13 and 2013/14. Over expenditure at national level leads to huge budget overruns, which makes it difficult for the government to release the full health budget according to the agreed timelines. On the other hand, utilization of external funding allocated through the public system is low and this also affects health service delivery. For example, the utilization of health funding from the Global Fund is below the planned utilization levels.

44. Given the above, there are several opportunities to improve the efficiency of government health expenditures in Malawi that could ultimately increase fiscal space for health. Carlson et al. (2014), the MoH (2014) and World Bank (2013) provide several options for improving technical and allocative efficiency in the health sector. This includes: (i) Strengthen the public finance management system; (ii) Transformation of budget management processes; (iii) Enhancing accountability and oversight functions; (iv) devolution and/or contracting-out of hospital management; (v) Creation and/or strengthening of public-private partnerships in the health sector. This includes continued partnership with CHAM for the provision of health services in underserved areas; and (vi) Identification and provision of appropriate demand-creating interventions to increase the utilization of hospital services.

Table 5: Sources of inefficiency in Malawi's health sector and Potential Savings Per Capita (US\$)²³

Source of Inefficiency	Evidence of inefficiency (illustrative studies)	Potential Efficiency Savings Per Capita (US\$)
Health care workers	<ul style="list-style-type: none"> The overall public sector wage bill as a share of GDP increased from 5.7% in 2012/13 to 6.4% in 2016/17 which raises questions on its sustainability (World Bank, 2017). Increase in the public sector wage bill could be attributed to weaknesses in establishment and personnel controls which have made the payroll vulnerable to fraud (ibid). Government allocation to wages as a share of total government health budget was 49% between 2009/10 and 2016/17 (Ministry of Finance data) Expenditure on wages increased from US\$47.6m in 2012/13 to 50% US\$95.8m in 2014/15 (MoH, 2016b). 	3.1
Hospital services <i>Low turnover and bed occupancy rates at district level public and mission hospitals</i>	Assessment of technical efficiency at 40 district hospitals shows that only 27.5% of the hospitals had desirable bed turnover ratios, and bed occupancy rates (Asbu et. al., 2012).	1.6
Health system leakages <i>Corruption and fraud</i>	There have been several cases of corruption and mismanagement of funds in the health sector such as the US\$32m Cashgate scandal ²⁴ , and several cases of pilferage of medicines ²⁵ roughly estimated at that US\$7.4m annually	2.0
Health care services <i>Sub-optimal intervention mix, and poor quality of care</i>	Inefficiencies in the provision of ART, HIV Counselling and Testing, ANC and laboratory services (World Bank, 2015). Absence and/or inadequate use of a needs-based resources allocation formula, low public budget execution, and continued use of an input-based financing mechanisms (MoH, 2014; World Bank, 2013; 2017).	3.9
TOTAL		10.6

Figure 8: Breakdown of Government Health Budget by Key Line Items



Data Source: Ministry of Finance

²³ Analytical framework and estimates on potential efficiency savings adapted from Chisholm and Evans (2010)

²⁴ <http://www.economist.com/blogs/baobab/2014/02/malawi-s-cashgate-scandal>

²⁵ http://www.aidspace.org/gfo_article/drug-theft-serious-threat-malawi%E2%80%99s-health-system

Table 6: Summary – Analysis of Fiscal Space for Health in Malawi

	Pillar	Current Status	Prospects for Increasing Fiscal Space
1.	Conducive macroeconomic environment	<ul style="list-style-type: none"> ▪ Real GDP growth averaged 7% between 2006 and 2010, but dropped to 2.8% in 2015. Real GDP growth is projected at 2.5% in 2016, 4.2% in 2017, and 4.5% in 2018 ▪ Tax revenue as a share of GDP estimated at 16.1% in 2016 is above the average of 15.8% for SSA (excl. high income countries). But this is below the arbitrary but often suggested benchmark for the share of tax revenue to GDP to be 20%. If this happens, existing evidence suggests that an additional \$US28 per capita per annum could be raised by low income countries such as Malawi. But a tax share of 20% of GDP may be difficult to achieve given the limited tax administrative capacity in Malawi. ▪ By November 2016, fiscal deficit was 4.3% of GDP; total public debt at 52.1% of GDP; and food and non-food inflation at 27% and 15.9%, respectively, as at September 2016 ▪ Elasticity of government spending with respect to GDP growth is estimated at 0.87 ▪ Government Health Spending (% of GDP) was 2.9% in 2014/15 ▪ The Government is in the process of reviewing the tax system with the aim of improving tax administration procedures and broadening the tax base 	Limited
2.	Re-prioritization for health	<ul style="list-style-type: none"> ▪ Government health expenditure (% of total government expenditure) at 10.8% in 2014/15 is lower than the Abuja target of 15%. However, this is similar to the spending norms in sub-Saharan Africa and low income countries⁷. This suggests that the Malawi is performing relatively well in this aspect ▪ Compared to the health sector, Government expenditures in the education and agriculture sectors are higher (period average of 15% and 16.6%, respectively, over the period 2009/10-2014/15). For the education sector, this trend is similar to peer countries; while for agriculture it is much higher but justifiable ▪ Government and Total Health Expenditures as a share of GDP at 2.9% and 11.1%, respectively, are above the average for low-income countries and SSA. This suggests that Government’s spending on health in Malawi is already high ▪ Notwithstanding the above, in absolute terms, Government health expenditure per capita of US\$11.20 in 2014/15 is less than one-third of the country’s total health expenditure per capita of US\$39.2 in 2014/15 ▪ Donors contribute an average of US\$27 per capita per annum but 62 percent of the donor funding is spent on three diseases (HIV/AIDS, Malaria, and Reproductive Health). Thus, funding the other components of the EHP is still a major challenge 	Limited
3.	Generating	<ul style="list-style-type: none"> ▪ Currently, there is no earmarked taxes for health. Introducing 	Limited

	Pillar	Current Status	Prospects for Increasing Fiscal Space
	additional resources for health	<p>three (3) earmarked taxes as analyzed in the later parts of this paper would only generate an additional US\$0.63 per capita per year over the period 2016/17 to 2021/22</p> <ul style="list-style-type: none"> ▪ Prevailing macro-fiscal and labour environment are not conducive to implement a SHI scheme <ul style="list-style-type: none"> - 89% of total labor force in informal employment - Low wages in the formal sector, mean and median of US\$113 and US\$37, respectively - Large pool of “working poor” and the smallest middle class in SSA. Only 5% live for US\$4-20 a day, compared to the SSA average of 10% ▪ Only 1.2% of the population had some form of health insurance cover through private health insurance, corporate and other risk-pooling schemes in 2014/15 ▪ Health insurance as a proportion of Total Health Expenditure was estimated at 3.3% in 2014/15 ▪ Absence of regulation on health insurance 	
4.	Increased health-sector foreign aid	<ul style="list-style-type: none"> ▪ External financing estimated at 63% of THE (or US\$27 per capita per annum) over the period 2009/10-2014/15 is the main source of health financing in Malawi ▪ However, in recent years (2013/14-2014/15), there has been a notable decline in external health financing. The annual rate of reduction in external financing was US\$3.7 per capita per year between 2013/14 and 2014/15. The most significant decline was after the ‘Cashgate’ scandal by 18% in 2013/14 and by 9% in 2014/15. As such, it is critical for Government to mitigate further loss of external financing as the country endeavours to overcome the current macroeconomic challenges. ▪ While foreign aid programmes are compatible with country needs/priorities; 62% of the total external resources are earmarked for 3 diseases [HIV/AIDS (35%), Malaria (16%), and RH (11%)]. This makes it difficult to for Government to re-prioritize external funds to other priority programmes. 	Limited

	Pillar	Current Status	Prospects for Increasing Fiscal Space
5.	Improved efficiency in the health sector	<ul style="list-style-type: none"> ▪ Government and Total Health Expenditures as a proportion of GDP are higher than other peer countries and the SSA region ▪ On average, 49% of the Government health budget was allocated to wages between 2009/10 and 2016/17 ▪ Overall public sector wage bill as a share of GDP increased from 5.7% in 2012/13 to 6.4% in 2016/17. This could be attributed to weaknesses in establishment and personnel controls which have made the payroll vulnerable to fraud. ▪ Allocation for drugs and medical supplies at 13% on average over the period 2009/10-2016/17 is low ▪ There is inconsistency in the allocation of public resources <ul style="list-style-type: none"> - Percentage of Government recurrent expenditures attributable at district level increased from 48% in 2010/11 to 60% in 2014/15; but declined at Central Hospitals from 15% in 2010/11 to 9% in 2014/15; and at MoH headquarters from 37% in 2010/11 to 31% in 2014/15 ▪ Inconsistency in the allocation of public resources could be due to absence of an objectively defined or needs-based resource allocation formula ▪ Predictability and execution of the public health budget is low while financial disbursements are input-based rather than results-based ▪ High technical inefficiencies at public and mission hospitals at district level. This includes low turnover and bed occupancy rates ▪ Though key public health interventions are covered, coverage is limited and quality is poor ▪ Relatively high degree of corruption and mismanagement of funds due to limited compliance to the existing public finance management system ▪ About US\$10.6 per capita per annum could be raised through efficiency improvements in Malawi. This is comparable to evidence from other studies in Africa which show a median potential efficiency gain of US\$8 per capita per annum 	Good

4. ANALYSIS OF PROPOSED AREAS FOR EARMARKED TAXATION

4.1 Methodology

45. This part of the study examines in detail, potential for generating additional resources for health with focus on earmarked taxes for health. In sub-section 4.2, a literature review was conducted to gather information on the advantages and disadvantages of hypothecating (earmarking) tax revenue for health. In sub-section 4.3, expert opinion on earmarked taxes for health in Malawi is provided. The information was generated by conducting in-depth interviews and discussions with key stakeholders aimed at obtaining expert advice on the most feasible areas for earmarked taxation before further analysis. These areas were drawn from a report by MoH and Abt Associates (2015) on the proposed establishment of a Health Fund. In-depth interviews were held with key officials from the MoH; Ministry of Finance, Economic Planning and Development; Ministry of Natural Resources, Energy and Mining; Extractive Industries Transparency Initiative (EITI) Secretariat; MRA; Reserve Bank of Malawi; Tobacco Control Commission; National Statistical Office; University of Malawi (Chancellor College); USAID (Abt Associates); development partners; and Road Accident Fund of South Africa. The Vice President’s Office also provided guidance by anchoring discussions across the four (4) main health reform areas. To achieve greater certainty, data that was generated from the key informant interviews was validated by documents reviews and raw data that was obtained from several key institutions. The institutions were: the MoH, Ministry of Finance, EITI Secretariat, MRA, Reserve Bank of Malawi, Tobacco Control Commission, National Statistical Office, Inspector General of Police, Directorate of Road Traffic; and the International Monetary Fund. Triangulating evidence from regional and international studies was also used to gauge the quality of the evidence in line with Malawi’s country context and best practices.

46. Data from the various experts was grouped, and each of the proposed areas for earmarking was evaluated using an agreed-upon inclusion criteria. The criteria was: revenue generation capacity, health promotion potential, political feasibility, consumer acceptability, and perceived effects on businesses and trade. Based on the information gathered from the experts and document reviews, seven (7) of the twelve (12) initially identified areas were eliminated. As such, revenue forecasts have only been provided for five (5) areas. These results are presented in sub-section 4.4 and the Annexes. Revenue projections were made covering the period 2016/17 to 2021/22 based on the effective tax rate forecasting approach. The Effective Tax Rate (ETR) is calculated as Tax Revenue (TR) divided by Tax Base (TB); which can be rearranged to $TR = TB * ETR$ (Bova, 2013). To forecast TR, therefore, there is need to forecast: (i) TB and (ii) ETR. For ETR, the study relied on a report by MoH and Abt Associates (2015) which proposes three (3) different tax rates for each of the identified areas as reflected in Table 7 below. Application of the different tax rates also made it possible to gauge the sensitivity and/or variations in the TB and expected revenue with each change in the tax rate.

Table 7: Proposed Tax Rates

Earmarked Tax	Low	Medium	High	Tax Base
1. Proposed medical levy from existing fuel levies	MK8.43/litre (10% or K3.43/litre from MAREP <u>plus</u> MK5.00/litre from Storage Levy)	MK11.87/litre (20% or K6.87/litre from MAREP <u>plus</u> MK5.00/litre from Storage Levy)	MK15.30/litre (30% or K10.30/litre from MAREP <u>plus</u> MK5.00/litre from Storage Levy)	Litres of fuel
2. Motor Vehicle Insurance	3%	6%	9%	Gross Premiums
3. Extractives	1%	2%	3%	Production Value
4. Alcohol	10%	20%	30%	Sales Revenue
5. Tobacco	10%	20%	30%	Sales Revenue

47. For TB, the conditional techniques which assume that the variable to be forecast (TB in this case) is conditional on other variables (e.g. GDP, imports, consumption) were used. For fuel levies (rural electrification and storage), the TB is demand for fuel in litres and the projections were made using the following formula:

$$TB_t = TB_{t-1} * [(rY_t/rY_{t-1}) * 100\%]$$

where TB_t is the demand for fuel in current year; TB_{t-1} is demand for fuel in previous year; rY_t is real GDP in current year; and rY_{t-1} is real GDP in previous year. The basic assumption is that the demand for fuel is proportional to growth in national income.

48. For alcohol and tobacco, the study assumed that the TB is sale revenues; for extractives the TB is the production value; and for motor vehicle insurance the TB is gross premiums. The increase in all these bases is usually either due to demand, price level or both elements. As such, the projection for these bases applied the following formulae:

$$TB_t = TB_{t-1} * [(nY_t/nY_{t-1}) * 100\%]$$

where TB is tax base (separate for each item) and nY is nominal GDP while t and $t-1$ represents current year and previous year, respectively.

49. Forecasting of the various TBs also required that we have projections for real GDP (Y_t) and nominal GDP (nY_t), and the study utilizes forecasts using MFMod prepared by the World Bank. This is because World Bank projections use robust data and models which are generally more acceptable on the global scene. Thus, real GDP growth for Malawi is projected at 2.5 percent in 2016, 4.2 percent in 2017, and 4.5 percent in 2018²⁶. For conversions from Malawian Kwacha to US dollars, the rate was: US\$1=MK721.07 as at 12th October 2016. This is a mid-point rate which was obtained from the Reserve Bank of Malawi (<http://www.rbm.mw/Statistics/MajorRates>).

4.2 Arguments for and against hypothecating (earmarking) tax revenue for health

50. There are various arguments in favour and against earmarked taxes. Cashin (2016)²⁷ defines earmarking for health as “targeting new or existing streams of revenue for health systems, programs, priorities, and/or populations” and maps about 85 countries worldwide which are currently earmarking revenues for health. Earmarked revenues for health are most often derived from contributions or taxes such as tobacco and alcohol taxes, fuel levies, VAT, lotteries, foreign personal money transfers, mobile phone company turnover, etc (ibid). For earmarked taxes, the common feature is that tax payers know what the Government will spend the money on, and this promotes accountability and trust for public spending (Doetinchem (2010). In the health sector, earmarked taxes are commonly referred to as ‘sin taxes’ because they are specifically levied on goods deemed harmful to society, such as alcohol, tobacco, soft drinks, fast foods, coffee, fuel etc. Other than discouraging the consumption of unhealthy foods or substances, earmarked ‘sin taxes’ for health also have the advantage of raising funds for the health sector. For example, the Center for Global Development argues strongly for the introduction of tobaccos taxes in developing countries which they consider to be the ‘single best health policy’ (Savedoff and Alwang, 2015). Their main argument is that tobacco taxes are very cost-effective, save lives, and can increase government revenues while at the same time save poor households money when their family members quit smoking (ibid). The other argument for earmarked taxes for health is that the revenue generated can be ring-fenced and used for the intended purpose due to high public support for such spending, and citizen’s trust that their government will spend the money on services highly beneficial to society (Doetinchem, 2010).

²⁶ World Bank staff estimates using MFMod

²⁷ Accessed online from <http://www.r4d.org/blog/2016-01-28/earmarking-safe-bet-finance-health> on 3rd January 2017

51. Notwithstanding the above, Ministries of Finance in most countries are usually reluctant to introduce earmarked taxes because they limit flexibility in allocating resources across sectors, and according to national priorities. Appleby and Boyle (2000) further argue that earmarking can undermine equity in resource allocation because governments are not able to fairly distribute costs across different sectors. Furthermore, earmarking has also been critiqued for determining health spending by how much a tax raises rather than on the health needs of the population (ibid). This could lead to wasteful expenditures when the tax base is buoyant, and insufficient budgets when the economy and/or tax base is depressed (ibid). Earmarked taxes can also be regressive if not well designed or targeted. For example, Remler (2004) shows that cigarette taxes heavily burden poor smokers who do not quit, no matter how the tax burden is assessed. Critics further argue that taxing price inelastic goods, especially those which are addictive, is highly likely to impoverish consumers than limit consumption (Snowdon, 2012). The other challenge is that the MoH may find it difficult to request for supplementary funding when budgeted resources are exhausted because the treasury may argue that the MoH has its own pool of earmarked funds. On the other hand, revenues from earmarked sources may not be additional in the medium to long term because the Ministry of Finance could reduce the general health budget allocation by the corresponding amount of revenue realized from earmarked taxes. This is conceivable given the fungible nature of government money, and competing demands from other sectors. As a matter of fact, interviews with the Ministry of Finance of Malawi revealed that other sectors had also presented proposals for increased funding including plans for earmarked taxes.

52. In conclusion, there appears to be very strong positive and negative views on earmarking but limited evidence to substantiate the claims²⁸. It is also evident that earmarking is highly context-specific and dependent on a country's political priorities and budget process²⁹. Therefore, validity of the arguments depends on practical implementation experiences. As Doetinchem (2010) argues, earmarking tax revenue is not inherently right or wrong and it depends on how overall government spending is adjusted to accommodate changes. What is also clear from the preceding arguments is that earmarking reduce government's flexibility in resource allocation but can also secure revenues for priority programmes, increase accountability and public support, and prevent unhealthy behaviours. As such, depending on the magnitude of the problem to be addressed, earmarking could be applied for a short or long period with linkages to the broader health financing context and general tax system. Close collaboration between the MoH and the Ministry of Finance have been crucial enabling factors in countries that successfully earmarked revenues for health³⁰.

4.3 Expert opinion on earmarked taxes for health in Malawi

53. A number of interviews were conducted with key stakeholders to get expert opinion on the revenue generation capacity and potential to promote healthy lifestyles for each of the twelve (12) areas³¹ which had been identified for earmarked taxes by the MoH. Key informants were also requested to provide expert opinion on political feasibility, consumer acceptability, and perceived effects on businesses and trade. This exercise was important because not all the areas that the MoH had proposed for earmarking were potentially viable in Malawi. Information from the various experts was grouped, and each of the proposed areas for earmarking was evaluated using an evaluation criteria outlined in Table 8 below. Below is a summary of the discussion and consensus on the twelve (12) areas. The analysis also includes evidence from document reviews from the IMF (2016a) and other studies.

²⁸ ibid

²⁹ Cashin C., Sparkes S.P., and Bloom D. (forthcoming). *Earmarking for Health: From Theory to Practice*. A Health Financing Working Paper No. 16.5 prepared for the World Health Organization and Results for Development.

³⁰ ibid

³¹ The twelve (12) areas include: (i) fuel; (ii) tobacco products; (iii) alcohol; (iv) mobile phone talktime; (v) corporate businesses; (vi) value added tax; (vii) extractive industries; (viii) moneys received from loans applied through parliament; (ix) donations received from developing partners, foundations etc; (x) annual earnings paid by employees and employers to private health insurance schemes, (xi) moneys earned by investments made by or on behalf of the Malawi Health Fund; and (xii) third party and comprehensive motor vehicle insurance.

- 4.3.1** A medical levy on fuel was likely to generate adequate resources but there were already eight (8) levies and duties on fuel. Introducing an additional levy on fuel would lead to an increase in the pump price of fuel and an inflationary pressure which would affect the entire economy;
- 4.3.2** Rather than introducing a new levy on fuel, the group of experts felt that replacing and/or getting a share from two (2) already existing levies on fuel wouldn't attract an increase in the pump price of fuel; and would have no adverse effects on production, trade, and domestic consumption. The proposed fuel levies and justification are:
- (i) Replace the existing fuel storage levy with a medical levy. The justification was that all the planned fuel storage units have already been built and there was therefore no need to continue collecting money for this purpose;
 - (ii) Allocate a share of future revenues generated from the rural electrification levy (commonly referred to as the Malawi Rural Electrification Programme [MAREP]) to the health sector. It was explained that money which has already been collected could be used for rural electrification as intended but a share of the future revenue could be allocated to the health sector. The justification for targeting future revenue from the MAREP levy was due to the low absorptive capacity for the funds that have been collected since the introduction of the levy³²;
- 4.3.3** Notwithstanding the above, officials from the Department of Energy were of the view that replacing the storage levy with a medical levy would be more feasible given the political nature of rural electrification in Malawi, and existence of the Rural Electrification Act No. 21 of 2004 which provides for the establishment of a Rural Electrification Fund. It was explained that this Act has to be repealed to allow for a share of the MAREP levy to be allocated for health. However, a review of this Act showed that it provides for the establishment of a "Rural Electrification Fund" but it does not explicitly say that money for the Fund has to be raised from the rural electrification levy;
- 4.3.4** Experts were of the view that taxing tobacco products and alcohol would not generate enough revenue as domestic consumption is low while it is easy to smuggle the products. Therefore, an increase in tax in these areas would exacerbate smuggling. In particular, the Tobacco Control Commission indicated that any tax/levy on tobacco (whether on production or domestic consumption) ultimately affected tobacco farmer. Currently, there are more than eight (8) levies and taxes on tobacco products targeting both domestic use and imports. The President of Malawi is aware of this and on Wednesday 13th April, 2016 he called for the reduction of taxes/levies on tobacco owing to the numerous complaints from tobacco farmers. The IMF (2016a) comprehensive tax reforms report further notes that raising the excise duty on cigarettes is unlikely to increase revenue significantly due to: (i) low prevalence rate of smoking among adults aged over 15 in Malawi; and (ii) the retail prices of cigarettes in Malawi are similar to those in Mozambique with whom Malawi shares a long border. Thus, any significant difference in the retail prices of cigarettes between the two countries would encourage smuggling (ibid). On alcohol, however, the IMF (2016a) recommends the switch of excises taxes on alcohol from ad-valorem to specific excises based on alcoholic strength to better correct the negative externalities associated with alcohol consumption;
- 4.3.5** The proposal to introduce an earmarked tax on talktime was declined out-rightly owing to the high fiscal and regulatory levies already in place in Malawi. The experts concluded that Government cannot take another risk in increasing taxes on talktime as it is already expensive in Malawi compared to several countries, and cited a recent public outcry. The IMF (2016a) is also of the view that the telecommunication sector in Malawi is heavily charged and recommends no further increases but improvements in transparency and efficiency. For

³² About MK30 billion (US\$44 million) has accumulated over the years but progress on rural electrification has been slow.

example, the IMF (2016a) notes that Telecoms companies in Malawi are subject to: (i) customs duties on capital equipment (handsets are exempt); (ii) a 10 percent ad-valorem excise on call minutes and internet data; (iii) VAT; (iv) Corporate Income Tax; (v) a 5 percent charge on the gross revenue of telecom companies; (vi) license and spectrum fees; and (vii) a US\$0.08 per minute charge on incoming international calls. This explains why Malawi (ranked 19th) is among the top 20 countries with the highest consumer taxes as a proportion of the total cost of mobile ownership in the world (GSMA, 2015). On the other hand, increased taxes on talktime would further limit mobile telecommunications access in Malawi which has been growing in recent years but is still low by regional standards. Mobile phone penetration rate in Malawi was estimated at 38 percent in 2015 as compared to 49 percent and 54 percent for SSA and SADC, respectively³³.

- 4.3.6** Increasing tax rates on corporate income tax (CIT) and VAT was deemed undesirable as the rates were already high. Efforts should be directed towards an increase in tax compliance in these two areas. These observations are also in line with the IMF (2016a) comprehensive tax reforms report where recommendations are made to reduce the CIT from the current 30 percent to 25 percent in the medium term;
- 4.3.7** The extractive industry is still in its infancy and hence, negligible resources would be generated. Compounding the problem has been the closure of production at Kayelekera uranium mine, which is currently in maintenance;
- 4.3.8** Taxing moneys received from loans applied through Parliament, and donations received from developing partners is not feasible as best practices do not advocate for taxing loans and development aid; and
- 4.3.9** The experts observed that a new tax on third party and comprehensive motor insurance could be introduced. This would have the twin goal of generating additional revenues for the health sector while at the same time reducing the costs incurred by the health sector in addressing deaths, injuries, and disabilities due to road traffic accidents³⁴. For this to be viable, a tax or levy could be imposed on motor vehicle insurance premiums or on profits made by private insurance companies offering this service. It was, however, observed that the Reserve Bank of Malawi was also in the process of creating a Third Party Motor Compensation Fund to replace the existing third party motor vehicle insurance which is currently being offered by private insurers. The proposal by the Reserve Bank of Malawi is contained in a Concept Note dated March 2016.

54. In conclusion, while the team of experts appreciated the need to generate additional domestic revenues for the health sector through earmarked taxes, they observed that most of the areas were already heavily taxed. It was further observed that it would be very difficult to increase taxes or levies in the already existing areas without causing adverse effects on production, trade, and consumption. The consensus was to identify and re-allocate revenue from existing taxes or levies without increasing tax rates. It was further advised that focus should be on levies rather than taxes because revision of taxes would require amendment of certain regulations and legislature through parliament which might take time. In addition, it was suggested that emphasis should also be on improving the tax administration capacity at MRA which could lead to improved revenue collection. Furthermore, considering that the Malawian Government is in the process of reviewing the overall tax system, it was emphasized that all proposals on earmarked taxes in the health sector should be aligned to the overall tax reform process.

55. On the proposal to introduce a new tax or levy on third party and comprehensive motor insurance, it was agreed that the MoH should also review the Concept Note on the establishment

³³ gsmaintelligence.com and budde.com.au

³⁴ Road Traffic Accidents are ranked 8th on the list of leading causes of Disability Adjusted Life Years (DALYs) in Malawi

of a Third Party Motor Compensation Fund as proposed by the Reserve Bank of Malawi. In this regard, a decision has to be made on the feasibility of: (i) Continuing with private insurance for motor vehicles but introducing a tax/levy on motor vehicle insurance premiums OR on profits made by private insurance companies offering this service; and (ii) Replacing the existing third party motor vehicle insurance currently offered by private insurers with a Third Party Motor Compensation Fund managed by a semi-autonomous government institution. This avenue is worth exploring given that some countries in Africa (Botswana, Namibia, and South Africa) have successfully implemented viable motor vehicle accident funds.

Table 8: Responses from Stakeholders and Document Reviews on the Proposed Sources of Earmarking

Proposed Sources of Revenue	Revenue Generation Potential	Health Promotion Potential	Political Feasibility	Consumer Acceptability	Effects on Businesses and Trade	Concluding Remarks
1. Fuel <i>Fuel is already heavily taxed—A total of eight (8) duties and levies are charged on each litre of fuel. As at 4th November 2016, each litre of fuel attracted duties and levies amounting to an average of K208.94 per litre.</i>	High	High <i>Revenue generated could be used to fund health promotion, treatment, and social benefit programmes that could help to reduce the high morbidity and mortality related to road accidents. Negative externalities associated with fuel consumption (congestion, noise/air pollution) could also be reduced.</i>	Low <i>“Fuel is weighted highly in Malawi’s CPI. Any change in fuel prices has an impact on household expenditures, businesses and is therefore politically unpopular. Compared to its neighbours and Southern Africa, prices of fuel in Malawi are higher”.</i> <i>“Best option would be to replace some of the existing levies on fuel with a health levy. Examples are the storage and MAREP levies”.</i> <i>“About MK30 billion (US\$44 million) has accumulated over the years but progress on rural electrification has been slow. Therefore, Government could use some of the future revenues from MAREP. For the storage levy, facilities have already been built”.</i>	Low	Negative	Generate revenue forecasts in the main report focusing on revenue potential of replacing existing fuel levies—Storage and MAREP.
2. Third party and comprehensive motor vehicle insurance <i>A new tax on third party and comprehensive motor insurance was proposed. This would have the twin goal of generating additional revenues for the health sector while at the same time reducing the costs incurred by the health sector in addressing deaths, injuries, and disabilities due to road traffic accidents.</i>	High	High <i>Revenue generated could be used to fund health promotion, treatment, and social benefit programmes that could reduce the high morbidity and mortality related to road accidents.</i>	High <i>The Ministry of Finance through the Reserve Bank of Malawi has already prepared a Concept Note outlining the establishment of a Third Party Motor Compensation Fund.</i> <i>The Minister of Health expressed concern on the rising number of fatal Road Accidents and their impact on the health system.</i>	High	Positive	Generate revenue forecasts in the main report.
3. Alcohol <i>Alcohol is already heavily taxed.</i>	Low <i>Consumption of alcohol in Malawi is very low.</i>	Low <i>Potential to promote health is high among the consumers but low countrywide.</i>	High	Moderate	Negative <i>High potential of losing existing revenues through smuggling if tax is increased. Malawi shares a very long border with Mozambique.</i>	Generate revenue forecasts in the Annex.
4. Tobacco products <i>Tobacco products are already taxed. Currently, there are more than eight (8) levies and taxes on tobacco products.</i>	Low <i>IMF (2016a) notes that raising the excise duty on cigarettes is unlikely to raise significant revenue due to: (i) low prevalence rate of smoking among adults aged over 15 in Malawi; and (ii) retail prices of cigarettes in Malawi are similar to those in Mozambique with whom</i>	Low <i>Potential to promote health is high among the consumers but low countrywide.</i>	Low <i>The President of Malawi on Wednesday 13th April, 2016 called for the reduction of taxes/levies on tobacco owing to the numerous complaints from tobacco farmers.</i>	Low	Negative <i>High potential of losing existing revenues through smuggling if tax is increased. Malawi shares a very long border with Mozambique.</i> <i>Consumption of tobacco products in Malawi is low while the country is an exporter of tobacco products.</i>	Generate revenue forecasts in the Annex.

Proposed Sources of Revenue	Revenue Generation Potential	Health Promotion Potential	Political Feasibility	Consumer Acceptability	Effects on Businesses and Trade	Concluding Remarks
	<i>Malawi shares a long border.</i>				<i>Introduction of a health levy on tobacco production would be highly undesirable given that tobacco is the country's key export commodity accounting for about 50% of the country's total merchandise exports.</i>	
5. Extractive industries	Low <i>The extractive industry in Malawi is still in infancy. While it is projected that mining activities could earn Malawi in excess of US\$100 million of production value per annum in future; by the end of 2016 most of the mining explorations had not been concluded. Closure of the biggest mine—Kayelekera Uranium Mine in 2013/14—has resulted in loss of tax revenue by 91% between 2013/14 and 2015/16</i>	Low	High	High	Negative	Generate revenue forecasts in the Annex.
6. Mobile phone talktime <i>Mobile phone talktime in Malawi is already subjected to very high fiscal and regulatory levies.</i>	High <i>Malawi has a mobile phone penetration rate of 38% (2015 estimate). Introducing a health levy on talktime could yield significant resources.</i>	Low	Low	Low	Negative	Drop
			<p><i>“Government cannot take another risk in increasing taxes on talktime as it is already expensive in Malawi compared to several countries”.</i></p> <p><i>“The Government is trying to increase mobile communication access. Increasing the levy on talktime would be contradictory, and there could be another public outcry”.</i></p> <p><i>“Given the already heavy fiscal burden borne by the telecoms sector, total charges on telecommunications should not be increased.” - IMF (2016a, Page 21).</i></p>			
7. Corporate businesses <i>Malawi's Corporate Income Tax (CIT) of 30% is average for its income level but high by international standards.</i>	High	Low	Low	Low	Negative	Drop
			<p><i>“Reducing the CIT rate could be especially beneficial to Malawi given its development level, relatively high transport costs and challenging business environment”. - IMF (2016a, Page 19).</i></p> <p><i>“In the medium term, as revenue pressures permit, reduce the CIT rate to 25 percent”. - IMF (2016a, Page 20).</i></p>			
8. Value added tax	High	Low	Low	Low	Negative	Drop
9. Moneys received from loans applied	High	Low	Low	High	-	Drop

Proposed Sources of Revenue	Revenue Generation Potential	Health Promotion Potential	Political Feasibility	Consumer Acceptability	Effects on Businesses and Trade	Concluding Remarks
through parliament.						
10. Donations received from developing partners, foundations etc	High	Low	Low	High	-	Drop
11. Annual earnings paid by employees and employers to private health insurance schemes.	Low <i>Only 1.2% of the population have some form of health insurance through private health insurance companies, corporate, and other risk-pooling schemes. Health insurance as a proportion of Total Health Expenditure was only 3.3% in 2014/15.</i>	Low <i>Potential to promote health is low countrywide given the small number of people using private health insurance.</i>	-	Low among the insured but high for the non-insured.	-	Drop
12. Re-investing money generated through the proposed Health Fund	To be determined	High	High	High	-	Drop. <i>To be analyzed in a follow-up study if the proposed Health Fund is established.</i>

4.4 Revenue Forecasting

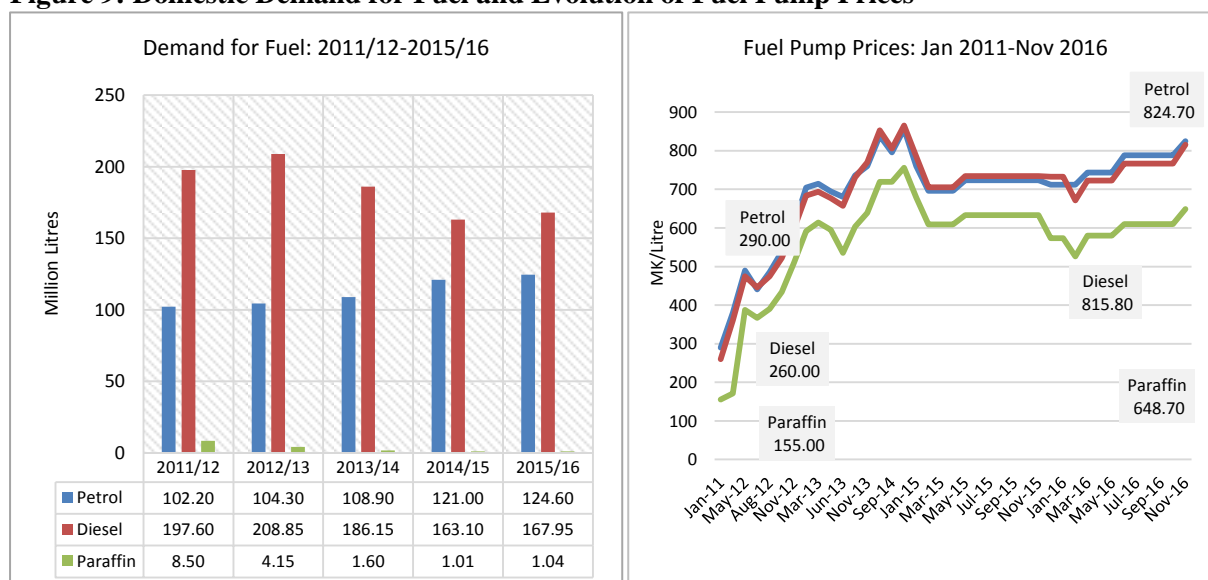
56. Based on expert opinion and documents reviews (Table 8), only five (5) of the twelve (12) areas which were identified for earmarked taxation were subjected to further analysis. The five (5) areas are: fuel, motor vehicle insurance, extractives industry, alcohol, and tobacco. Presented below are revenue forecasts on fuel and motor vehicle insurance while the analyses on extractives industry, alcohol, and tobacco products are provided in the Annexes. This is because fuel and motor vehicle insurance have high revenue generation potential and minimal negative consequences on consumers and businesses as highlighted in Table 8.

4.4.1 Fuel Levy

Demand for Fuel

57. Demand for major fuel products, petrol, diesel and paraffin, declined to 293.59 million litres in 2015/16 from 308.3 million litres in 2011/12 representing a decline of 5 percent (figure 9). The decline was only observed in the demand for diesel and paraffin which dropped by 15 percent and 88 percent, respectively, over the period under review. This could be attributed to relatively high fuel prices which increased by 89 percent, 100 percent, and 152 percent for petrol, diesel and paraffin, respectively, between 2011/12 and 2015/16. While the increase in prices didn't affect the demand for petrol³⁵, the drop in demand for diesel could also be due to a slowdown in economic activities in the period under review. The economy grew by an average of 3.9 percent between 2011/12 and 2015/16 compared to an average of 7.1 percent between 2008/09 and 2011/12. However, paraffin is facing the lowest demand mainly due to the fact that it is being substituted by other forms of energy for lighting, for instance, rechargeable lamps that have proliferated on the local market. As at 4th November 2016, Malawi Energy Regulatory Authority (MERA) increased the pump prices for petrol, diesel and paraffin to K824.70 per litre, K815.80 per litre, and K648.70 per litre, respectively (figure 9). This is bound to have a renewed effect on the demand for fuel, particularly diesel and paraffin.

Figure 9: Domestic Demand for Fuel and Evolution of Fuel Pump Prices



Data source: MoFED and MERA

³⁵ Demand for petrol increased by 22% over the period 2011/12 and 2015/16

Effects of introducing a new fuel health levy

58. Pricing of fuel is based on an Automatic Pricing Mechanism (APM). Under this mechanism, pump prices are reviewed based on a minimum of five percentages change in two parameters, namely: the exchange rate and the Free on Board (FOB) prices of petroleum products. According to MERA, the fuel price structure in Malawi contains a total of eight (8) duties and levies which are charged on each litre of fuel. This means that as at 4th November 2016, each litre of petrol attracts duties and levies amounting to K260.18 while each litre of diesel and paraffin attract K257.11 and K109.52, respectively. This amounts to K208.94 per litre on average. In other words, the eight (8) duties and levies are responsible for 27 percent of the price of each litre of fuel. A full list of the existing fees, levies, and duties are outlined in Annex 4 (A.4.1).

59. Owing to the above, introduction of a new levy on fuel will result in an increase in fuel prices in the month and/or year of its introduction, holding other factors constant. However, the magnitude of the price increase and its adverse effects will depend on the size of the levy. For instance a 1 percent levy will increase prices of fuel by 1 percent but only in the year of introduction. Still, the major effects that are expected from persistent increases in pump prices include slowdown in economic growth, inflation, worsening balance of payment (BoP) position and increase in inequality. Persistent increases in fuel prices can escalate costs of transporting inputs and provision of transport services. As such, some sectors of the economy, especially manufacturing and transport may face reduced demand for their products as they attempt to increase their prices to recover the costs. However, the actual magnitude is not clear in Malawi as there is no empirical study in this area. Empirical studies in other countries show that this relationship is stronger for longer time horizons or when the price increases are permanent (Cantore *et al.* 2012). For Malawi, this relationship could be examined by looking at the weight of fuel and/or transport in the Consumer Price Index (CPI).

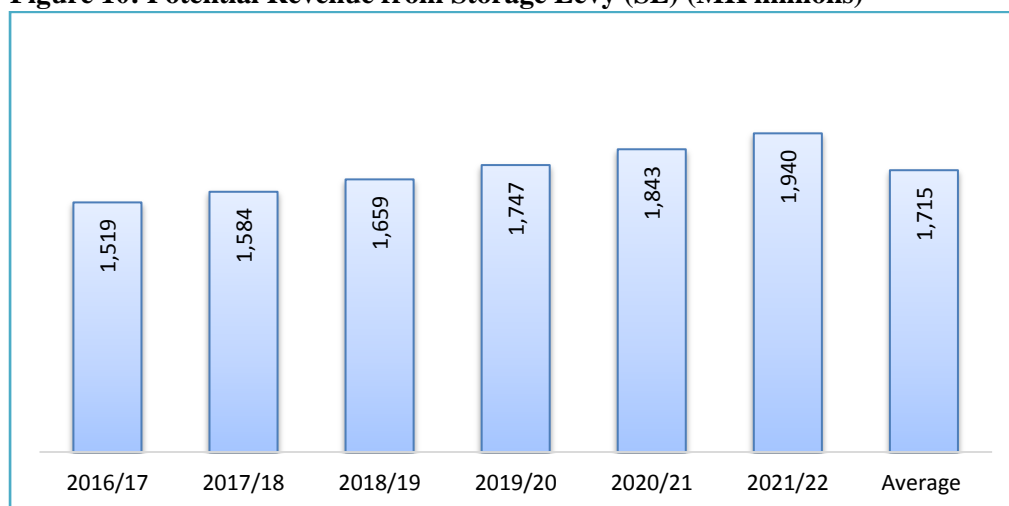
60. In Malawi, the weight of fuel in the CPI at 6.6 percent is third; housing, water and electricity at 14.7 percent is second; and food and non- alcoholic drinks at 50.2 percent is first. Therefore, a significant change in fuel prices due to an increase in the tax rate or introduction of additional levies might increase inflationary pressure considering that fuel already has a lot of levies on it. According to Nkomo (2012), many developing countries have faced particularly strong inflation pressures from fuel price increments mainly as a result of their large consumption shares of fuel products, which is the case with Malawi. Increases in cost of transportation of both inputs and final products due to the increase in fuel prices will reduce the advantage the country has over others in producing certain items. Hence, the country will end up exporting less and importing more, and ultimately worsen the current account, which exposes the country to several macroeconomic risks. Moreover, evidence from household surveys shows that oil price increases tend to have a stronger effect on poorer households, as a higher proportion of their expenditure goes on transport compared to their rich counterparts (Bacon, 2005). The poor become poorer and this creates social problems as more people are thrown into misery.

61. In light of the high burden imposed by road accidents on the health system in Malawi, there is a very strong argument for dedicating a fuel levy to the health sector to address this problem. Malawi has a very high road traffic fatality rate (estimated at 35 deaths per 100,000 population), and this imposes huge costs on households, the private sector, and the government each year (figure 15). A fuel health levy can also act as an incentive to reduce air pollution, and traffic congestion. For example, the total number of annual deaths from ambient particulate matter pollution (mostly caused by road transport, power generation or industry) across the African continent increased by 36% between 1990 and 2013; from 180,000 in 1990 to 250,000 in 2013 (Roy, 2016). For Africa as a whole, the estimated economic cost of premature deaths from ambient particulate matter pollution was estimated at US\$215 billion in 2013 (ibid). Thus, in addition to using fuel levies for road infrastructure maintenance (as is the case at the moment in Malawi), they can also be used for controlling adverse health effects such as road transport-related injuries and death, air and noise pollution, and traffic congestion. For instance, the federal gasoline tax in USA is meant to reduce pollution and traffic congestion, as well as to fund construction and maintenance of interstate highways and urban mass transit projects (Hines, 2007).

Revenue generation potential: sharing resources from MAREP and replacing the storage levy

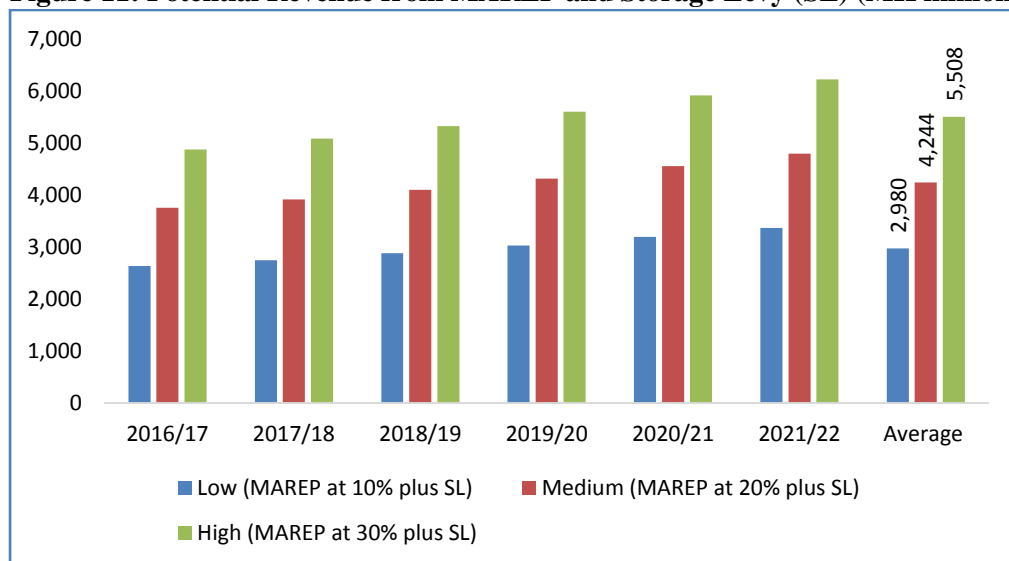
62. As presented above, introducing an additional levy on fuel will lead to an increase in the pump price of fuel, which would affect the entire economy. Therefore, rather than introducing a new levy on fuel, the consensus from the MoH, MoFED, and other government ministries and departments was to allocate a share of future revenues from the MAREP levy and to convert the existing storage levy into a medical/health levy. The justification for this is that absorption of resources by MAREP is low compared to the revenue that has been collected since the introduction of the levy. Secondly, fuel storage facilities have already been constructed, and therefore, the storage levy could be converted to a medical/health levy. Assuming that the demand for petroleum products grows in the same proportion with economic growth, an average of MK1.7 billion or US\$2.4 million per annum could be raised over the period 2016/17 to 2021/22 if the storage levy is converted to a medical levy (figure 10). However, if a share from the MAREP levy is also considered, the revenue would rise to about MK3.0 billion, MK4.2 billion, or MK5.5 billion on average per annum over the period 2016/17 to 2021/22 for the low, medium, and high scenarios, respectively (figure 11). This is equivalent to US\$4.1 million, US\$5.9 million, or US\$7.6 million on average per annum over the period 2016/17 to 2021/22 for the low, medium, and high scenarios, respectively.

Figure 10: Potential Revenue from Storage Levy (SL) (MK millions)



Data sources: MoFED and MERA

Figure 11: Potential Revenue from MAREP and Storage Levy (SL) (MK millions)



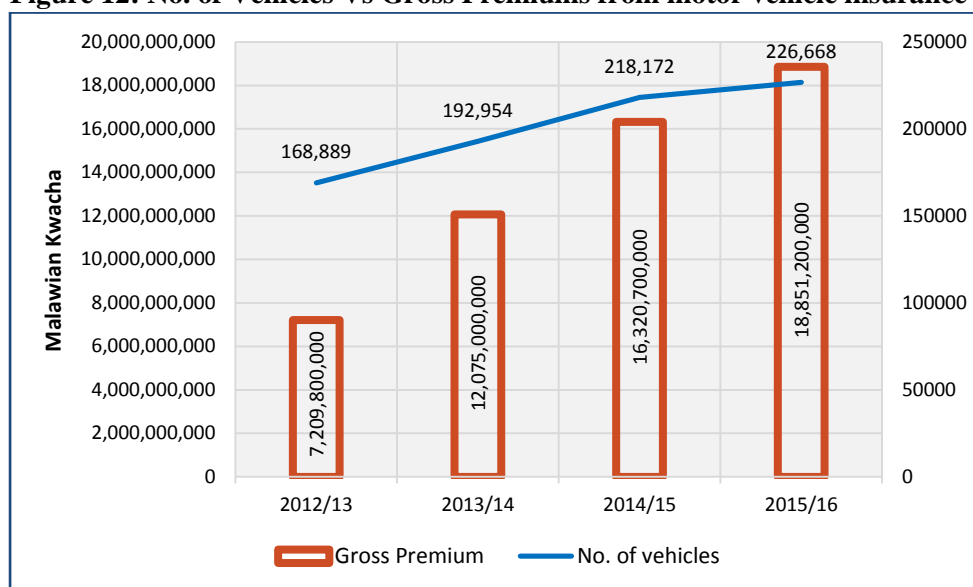
Data sources: MoFED and MERA.

4.4.2 Motor Vehicle Insurance Levy

Demand for Motor Vehicle Insurance

63. All vehicles in Malawi are required to have some form of insurance (either comprehensive or third party cover) by law. The Road Traffic Act 1997 makes compulsory the insurance of third party liability for motor vehicles, as minimum cover. As such, the demand for motor vehicle insurance services depends on the availability of motor vehicles. Between 2012/13 and 2015/16, the gross premiums realized from motor vehicle insurance increased by 161 percent from MK7.21 billion in 2012/13 to about MK18.8 billion in 2015/16 (figure 12). However, the increase has been at a decreasing rate mainly due to the shift by customers from comprehensive covers to the cheaper but basic third party insurance cover.

Figure 12: No. of Vehicles Vs Gross Premiums from motor vehicle insurance



Source: Reserve Bank of Malawi; Road Traffic Directorate

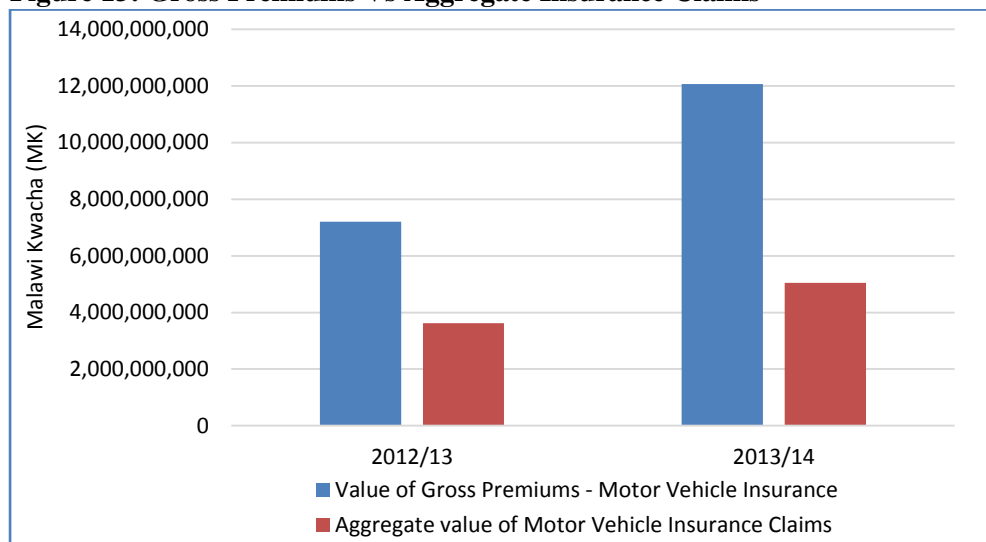
Effects of introducing health levy on motor vehicle insurance

64. The Insurance sector is governed by the Financial Services Act, Insurance Act, and regulated by Registrar of Financial Institutions at the Reserve Bank of Malawi. Currently the only tax under the insurance sector is the corporate income tax, and a license fee of K150,000 per insurance company. Once granted, the license is open ended as long as the institution complies with the capital, solvency and all other regulatory requirements. However, the insurance market is poorly regulated leading to a number of fraudulent claims. To avert this problem, the Ministry of Finance and the Reserve Bank of Malawi are in the process of developing a regulation on supervisory levies which will require insurers to contribute towards the cost of supervising the sector.

65. Pricing of insurance products is determined by the individual insurance companies particularly for comprehensive motor insurance. For third party insurance, a maximum of MK250,000 is paid to aggrieved third parties in respect of damage to motor vehicle or articles or death/bodily injury to persons. i.e. MK250,000 in any one accident for damage to motor vehicle or articles; and/or MK250,000 for death or bodily injury in any one accident. Therefore, the introduction of a levy on motor vehicle insurance will increase the price of motor vehicle insurance premiums. However, the demand for motor vehicle insurance is price inelastic in Malawi due to the fact that all vehicles are required to be insured by law. This means that, should the price of motor vehicle insurance premiums increase with the introduction of the levy, the demand for motor vehicle insurance is expected to remain the same. However, marginal declines in demand should be expected due to the fact that some

road users may opt to illegally use uninsured vehicles as a result of the price increase. Nonetheless, the value of the motor vehicle insurance premiums is still expected to be above the value of the aggregate motor vehicle insurance claims. For example, while the value of the aggregate motor vehicle insurance claims rose by 925 percent from MK583.5 million in 2008 to MK5.97 billion in 2014, this was only 42 percent of the MK12.1 billion gross insurance premiums from motor vehicle insurance which was realized in 2014. Figure 13 provides the situation for 2012/13 and 2013/14. However, if the CIT at 30 percent and the licence fee for insurers of MK150,000 are removed from the overall insurance premiums, the profit margin would reduce.

Figure 13: Gross Premiums Vs Aggregate Insurance Claims

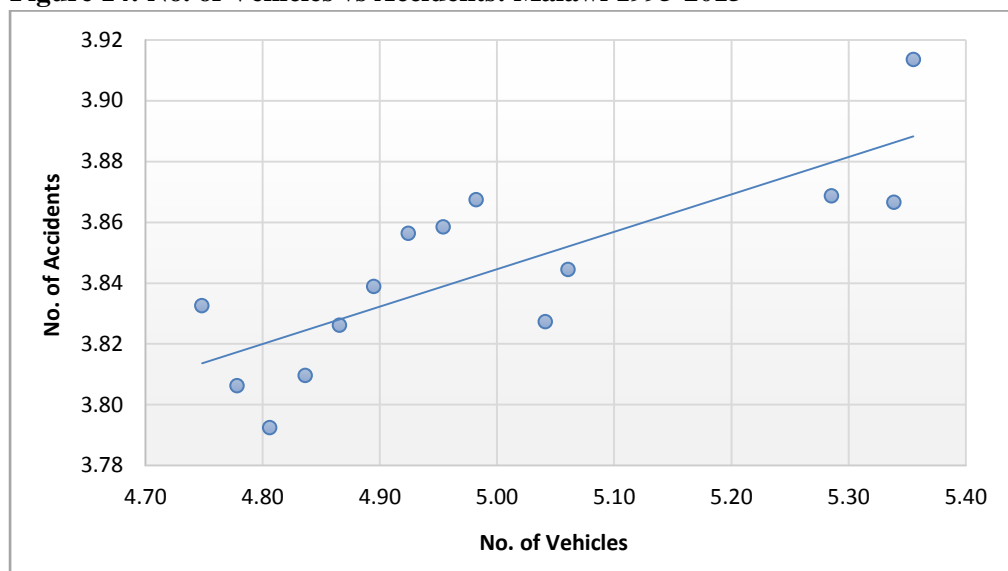


Data Source: Reserve Bank of Malawi

Health and economic justification for introducing a levy on motor vehicle insurance

66. Globally, road traffic related injuries and deaths have become a major public health and development problem, particularly in Malawi and other low- and mid-income level countries. The 2015 Global status report on road safety shows that low and middle-income countries account for 90 percent of global road traffic deaths with the most affected being the economically active population of young people aged between 15 and 29 years (WHO, 2015a). Road traffic injuries place a heavy burden on national economies and households. Economic costs at national level are huge and impose a significant burden on health, insurance and legal systems (ibid). In low- and middle-income countries, road traffic injuries and deaths are estimated to cause economic losses of up to 5 percent of GDP (Law 2009 cited by WHO, 2015a). In Malawi, the increased number of motor vehicles over the period 1995-2015 has contributed to a significant increase in the number of road traffic accidents i.e. about 3.4 accidents per vehicle on average over the period 1995-2015 (figure 14). And as further highlighted in Table 9, the total number of road traffic accidents increased by 11 percent from 7,390 in 2013/14 to 8,194 in 2015/16. Out of the total number of road traffic accidents recorded between 2013/14 and 2015/16, the number of people seriously injured and killed increased by 8 percent and 9 percent, respectively.

Figure 14: No. of Vehicles vs Accidents: Malawi 1995-2015



Data Sources: Ali (2010), National Police Headquarters, Road Traffic Department; Log Scale

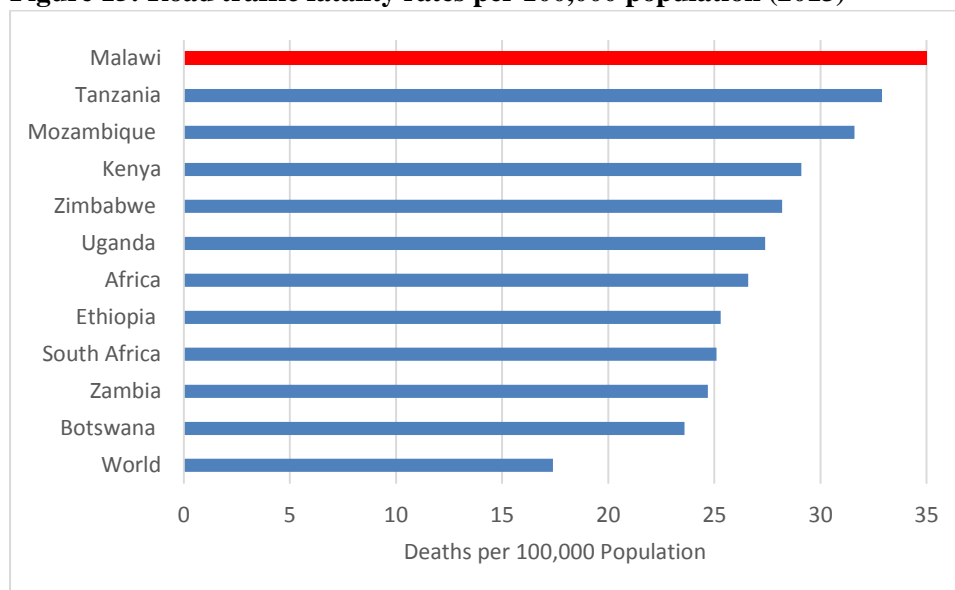
Table 9: Accident Statistics: Malawi 2013/14-2015/16

	2013/14	2014/15	2015/16	% Change - 2013/14 vs 2015/16
Seriously injured	909	973	982	8%
Killed	977	1,060	1,068	9%
Damage Only	2,093	1,461	2,013	-4%
Minor Injuries	3,411	3,861	4,131	21%
Total No. of Road Accidents	7,390	7,355	8,194	11%

Data Sources: National Police Headquarters, Road Traffic Department

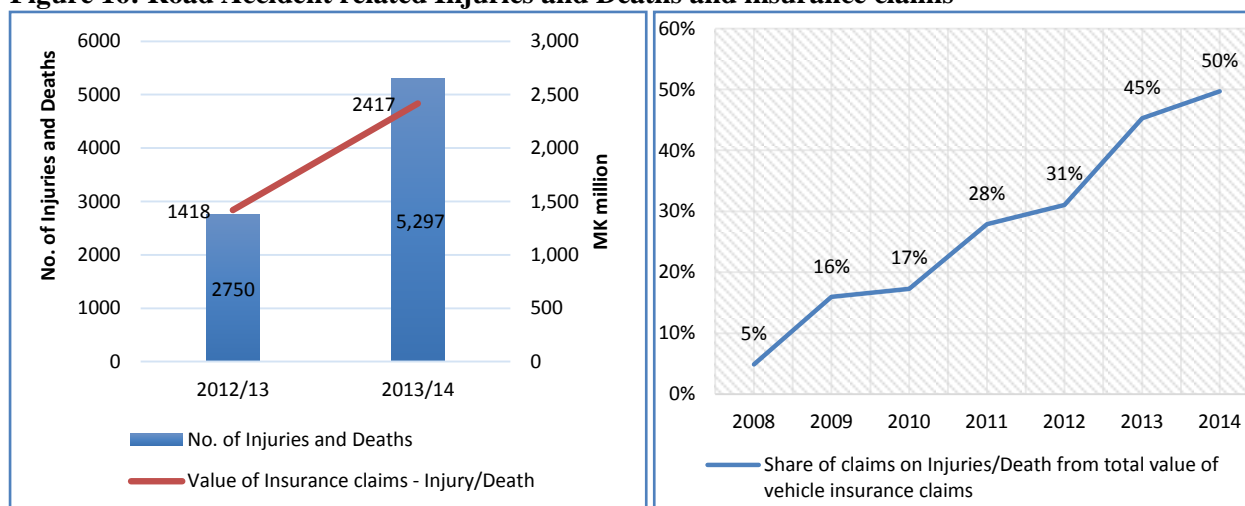
67. Malawi’s road traffic fatality rate of 35 deaths per 100,000 population is above the African regional average of 26.6 deaths per 100,000 population, and twice the global average of 17.4 deaths per 100,000 population (figure 15). Given the increasing number of road traffic injuries and deaths in Malawi, huge costs are incurred by households, health and insurance systems each year. As shown in Figure 16, the total number of people seriously injured and killed through road traffic accidents increased by 93 percent between 2012/13 and 2013/14, and at the same time the value of insurance claims due to injuries and death also increased by 70 percent. Expressed differently, the monetary value of vehicle insurance claims due to injuries and deaths as a percentage of the total monetary value of motor vehicle insurance claims rose significantly from 5 percent in 2008 to 50 percent in 2014 (figure 16). It is not clear, however, if these claims are genuine or whether the victims were attended to at public or private hospitals. There is also no information with regards to the impact of the money from road traffic insurance claims on decreasing direct costs for surgery at hospitals and impact at household level.

Figure 15: Road traffic fatality rates per 100,000 population (2013)



Data Source: WHO (2015). *Global Status Report on Road Safety*

Figure 16: Road Accident related Injuries and Deaths and insurance claims



Data Sources: National Police Headquarters; Reserve Bank of Malawi

68. Given the high social and economic costs of Road Traffic Accidents in Malawi, there is need to urgently address this problem. Road accident related fatalities are ranked eighth on the list of leading causes of Disability Adjusted Life Years (DALYs) in Malawi, but action to combat this challenge has been insufficient³⁶. As observed by AfDB (2013), addressing Road Traffic Accidents in Africa is critical due to the weak health care systems, and limited social protection for those surviving with life-changing injuries. Addressing road safety in Malawi requires solutions at several fronts: development and implementation of a national strategic plan, strengthening the capacity of institutions, improving data collection and dissemination, implementing measures targeted at specific groups at risk such as children, and incorporating safety into road designs and development³⁷.

69. The proposed tax on motor vehicle insurance seeks to reduce economic, health, and household costs due to road traffic injuries and deaths by generating additional money to be used exclusively for health care provision. Once this money is available to the health sector, part of it will be used to

³⁶ http://www.who.int/violence_injury_prevention/road_traffic/countrywork/mwi/en/

³⁷ *ibid*

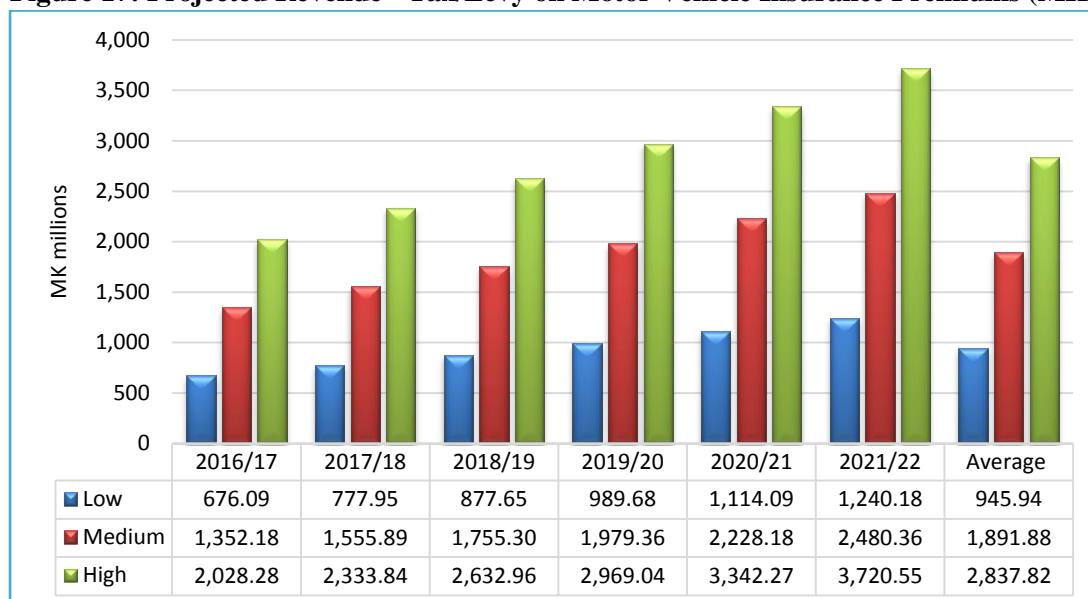
provide medical care to persons injured as a result of road traffic accidents, and for other illnesses. The tax/levy on motor vehicle insurance premiums is also expected to re-invigorate the demand for insurance cover at public and private hospitals whenever there is a road traffic accident requiring medical attention of any sort. Sensitization of the general public on the mandate of insurance companies in an event of road traffic related injuries and deaths will help to minimize the number of false insurance claims, encourage the use of public and private hospitals, and compensate some of the hospital/household costs. As stated earlier, the monetary value of insurance claims for road traffic related injuries/deaths increased by 925 percent between 2008 and 2014, or from a share of 5 percent of the total monetary value of motor vehicle insurance claims in 2008 to 50 percent in 2014.

70. Information on the annual number of accident victims attended to, average length of stay, treatment costs, and compensation from insurance companies is not readily available at major hospitals in Malawi. We visited Kamuzu Central Hospital, Likuni Hospital, and Luke Daeyoung Hospital in Lilongwe in an attempt to get this information. This information was not available at Kamuzu Central Hospital while at Luke Daeyoung Hospital an estimated 100 accident victims are attended to each year. Out of this number, 70 percent seek treatment in the public wing, average length of stay of 15-20 days, and about K10,000 per day is spent on each patient. In the private wing, the hospital attends to 30 percent of the annual number of accident victims, and patients pay about K40,000 per day for an average length of stay of 15-20 days. The majority of the accident victims who are attended to in private wings have medical insurance cover. It was also learnt that the number of accident victims treated as outpatients was significantly higher than the number of inpatients, and the most complicated cases are referred to Kamuzu Central Hospital. At Likuni Hospital, only 65 accident victims were attended to between 2012 and 2015, an average of 16 people per year, while information on the average length of stay, and costs was unavailable. Henceforth, while the monetary value of the road traffic related injuries and deaths have been rising over the years, corresponding information with regards to the number of accident victims attended to, average length of stay, treatment costs, and compensation by insurance companies is not readily available at major hospitals. Ironically, as presented in earlier sections of this report, data obtained from Malawi Police and the World Health Organization show high and rising cases of road traffic injuries and fatalities.

Revenue Generation Potential – Tax/levy on Motor Vehicles Insurance

71. As shown earlier in Figure 12, the gross premiums realized from motor vehicle insurance increased by 161 percent from MK7.21 billion in 2012/13 to about MK18.8 billion in 2015/16. Projecting for the next 6 years, it is assumed that the growth or demand for motor vehicle insurance is proportional to the growth in nominal GDP. Going by this principle, an average of MK946 million; MK1.9 billion; or MK2.8 billion would be generated on average per annum under the low, medium, and high scenarios, respectively, through a tax/levy on motor vehicle insurance premiums over the period 2016/17-2021/22. The revenue projections are presented in Figure 17. This is equivalent to US\$1,311,863; US\$2,623,726; and US\$3,935,589 on average per annum under the low, medium, and high scenarios, respectively. This money could be used to fund the health sector, particularly to compensate for costs incurred by the health sector in addressing deaths, injuries, and disabilities due to road traffic accidents.

Figure 17: Projected Revenue - Tax/Levy on Motor Vehicle Insurance Premiums (MK)



Data Sources: Reserve Bank of Malawi

Revenue Generation Potential – Establishment of a Third Party Motor Compensation Fund (TPMCF)

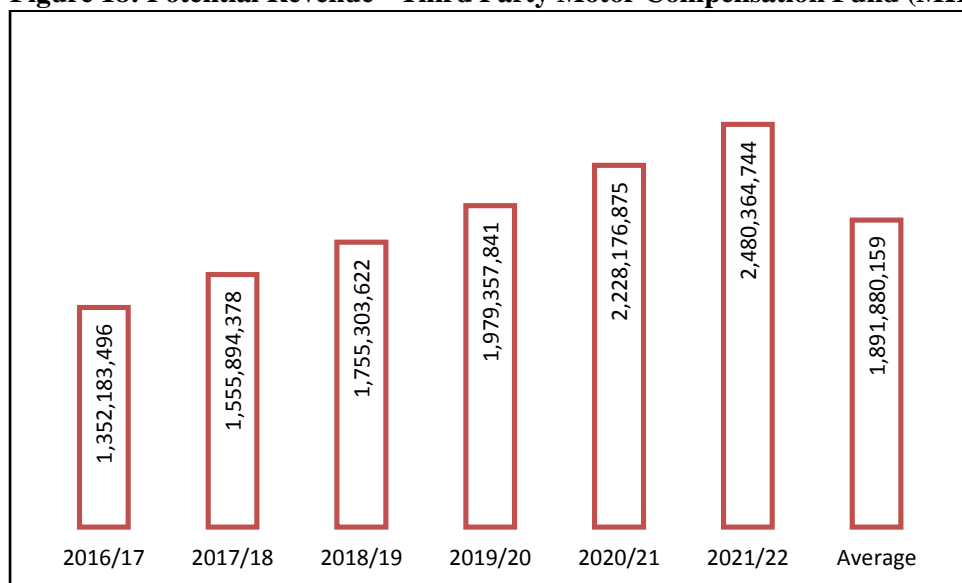
72. Other than introducing a tax/levy on motor vehicle insurance premiums, Malawi could instead establish a TPMCF. The Reserve Bank of Malawi has prepared a Concept Note which seeks to establish a motor vehicle accident fund (RBM, 2016). Other countries in Africa (e.g. Botswana, Namibia, and South Africa) have in place dedicated Road Accident Funds which provide social security benefits to road traffic accident victims to cater for medical and funeral expenses, loss of earnings, and loss of support. Though their sole purpose is to provide social security benefits to affected persons, these Funds contribute substantially towards the financing of the health system. The main funding sources for the proposed TPMCF for Malawi are a fuel levy or revenue from all third party motor vehicle insurance premiums. For the premiums, the Fund would take over the responsibility of providing third party motor vehicle insurance cover on a compulsory basis for all motorists in Malawi. However, private insurers would be allowed to provide comprehensive motor vehicle insurance cover above what is covered through third party insurance.

73. Our projections show that an average of MK1.9 billion or US\$2.6 million could potentially be generated per annum through third party motor vehicle insurance premiums alone over the period 2016/17-2021/22 if the TPMCF is established (figure 18). This would be lower than the MK2.8 billion or US\$3.9 million that could be generated on average per annum over the period 2016/17-2021/22 under the high scenario if a tax on motor vehicle insurance is considered instead (figure 17). The projected revenue is lower because in Malawi, the total gross revenue from third party insurance premiums is only 6 percent of the total gross revenue from motor vehicle insurance premiums. Ironically, 60 percent of the motorists in Malawi have third party motor vehicle insurance cover but its monetary premium value is far much lower than premiums for comprehensive motor vehicle insurance cover. The use of third party motor insurance premiums alone to implement a TPMCF wouldn't be enough to compensate all road traffic accident victims for medical and funeral expenses, loss of earnings, and loss of support. In other countries in Africa (Botswana, Namibia, and South Africa) where motor vehicle accident funds have been successful, the main source of revenue has been from fuel levies. Therefore, if the TPMCF has to be established, additional sources of funds have to be found, probably revenue from the storage and MAREP levies as presented in this paper.

74. It is worth pointing out that even in countries like South Africa which has had a system of compulsory motor vehicle accident insurance since 1942, implementation challenges still exist. We interviewed officials from the Road Accident Fund (RAF) of South Africa who indicated that the Fund is fraught with law suits from lawyers and this has had a significant impact on its ability to adequately cater

for needy road traffic victims. Prior to the establishment of the RAF on 1st May 1997, a Multilateral Motor Vehicle Accidents Fund financed through mandatory third party insurance premiums was in place. However, since the establishment of the RAF in May 1997, the main source of revenue is from a fuel levy. But despite the availability of funds to finance insurance claims, the Fund has a backlog of payments particularly to lawyers and hospitals. The main problem is that the system of claims against the Fund is fault-based, meaning that only the party not at fault of the accident can claim successfully. The fault element necessitates the involvement of courts where proof has to be established of the party at fault. Often, this leads to the involvement of attorneys at a substantial cost to the Fund and claimants. A key concern is that even though the Contingency Act allows lawyers a maximum of 25 percent of the claim amount as fees, they routinely take more than this, leaving claimants vulnerable when they require care in future. For example, we were informed that the RAF currently has 122,000 medical certificates but less than 20,000 of these are active because claimants are not using them for a variety of reasons. In some cases attorneys have not handed claimants their medical certificates because they have no interest. In other instances healthcare providers do not accept RAF medical certificates citing delays in reimbursement of claims.

Figure 18: Potential Revenue - Third Party Motor Compensation Fund (MK)



Data Sources: Reserve Bank of Malawi

5. SUMMARY - REVENUE GENERATION POTENTIAL OF PROPOSED MEASURES

75. Our analysis shows that additional financing for the health sector could be generated through earmarked taxes. Other than the proposed tax/levy on motor vehicle insurance premiums, it must be emphasized that the proposal is to maintain the status quo by simply earmarking funds to health from some of the already existing levies and thereby limiting potential adverse effects. Ultimately, additional finances for health could be mobilized from domestic sources by: (i) Allocating a share of the existing rural electrification (MAREP) levy to health; (ii) Replacing the existing storage levy with a medical levy; and (iii) Imposing a health tax on third party and comprehensive motor vehicle insurance cover. Using the three (3) areas (MAREP levy, Storage levy, and motor vehicle insurance), we present different scenarios showing the amount of revenue that could be generated for health.

76. The results show that on average, MK1.7 billion (equivalent to US\$2.4 million) could be raised per annum over the period 2016/17 to 2021/22 if the storage levy alone is converted to a medical levy (Table 10). This is equivalent to two (2) percent of the 2014/15 Government Health Expenditure. However, if the storage levy is converted to a medical levy and a tax on motor vehicle insurance is introduced, an average of MK4.6 billion (equivalent to US\$6.3 million) could be raised per annum over the period 2016/17 to 2021/22 based on the high scenario. This is equivalent to five (5) percent of the 2014/15 Government Health Expenditure. Table 10 further shows that if both the MAREP and storage levies are considered, an average of MK5.5 billion (equivalent to US\$7.6 million) could be raised per annum over the period 2016/17 to 2021/22 based on the high scenario. This is equivalent to six (6) percent of the 2014/15 Government Health Expenditure or US\$0.42 per capita per year over the period 2016/17 to 2021/22.

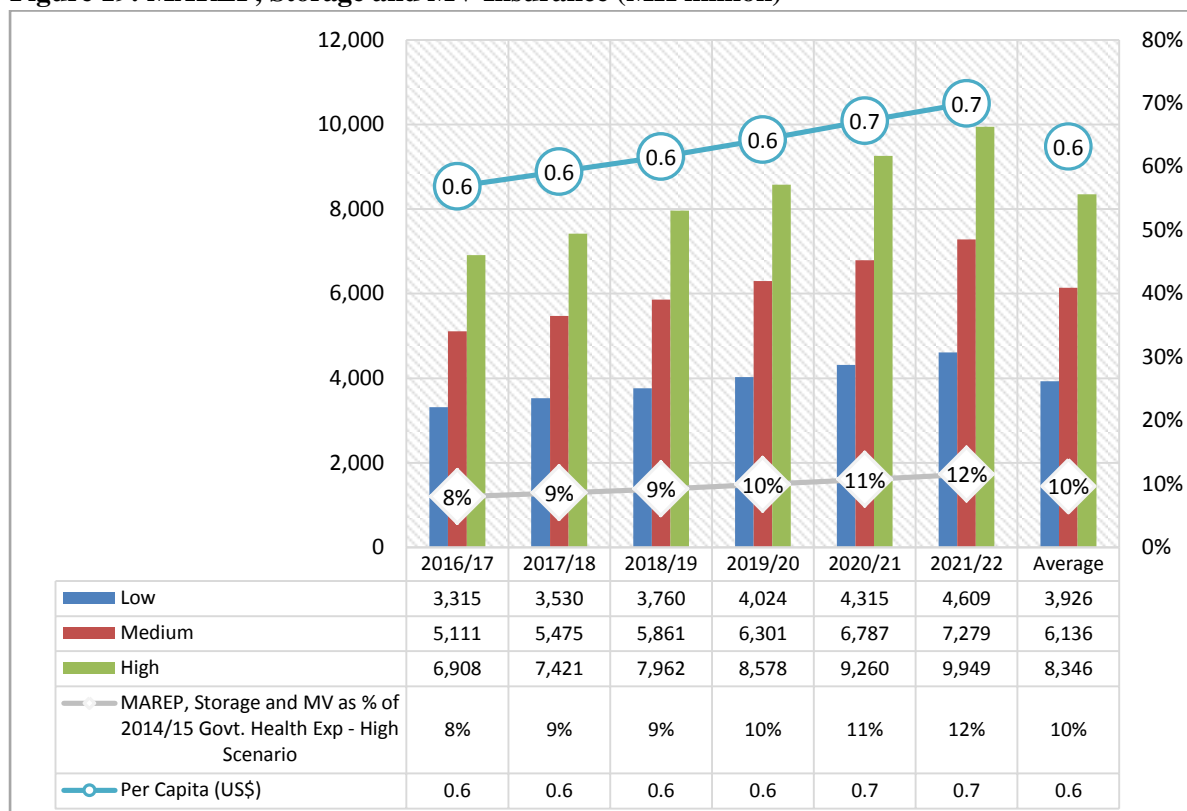
77. Lastly, if MAREP, storage levy, and motor vehicle insurance are considered, an average of MK8.4 billion (equivalent to US\$11.6 million) could be raised per annum over the period 2016/17 to 2021/22 based on the high scenario. This is equivalent to ten (10) percent of the 2014/15 Government Health Expenditure or US\$0.63 per capita per year over the period 2016/17 to 2021/22. A graphical analysis of the revenue generation potential from MAREP, storage levy, and motor vehicle insurance over the period 2016/17 to 2021/22 is presented in Figure 19.

Table 10: Projections Summary - Storage levy, Motor Vehicle Insurance, and MAREP (MK)

Storage Levy	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Projected Revenue (MK millions)	1,519	1,584	1,659	1,747	1,843	1,940	1,715
Storage Levy as % of 2014/15 Govt. Health Exp	2%	2%	2%	2%	2%	2%	2%
Per Capita (US\$)	0.13	0.13	0.13	0.13	0.13	0.14	0.13
MV Insurance	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Projected Revenue (MK millions)							
Low	676	778	878	990	1,114	1,240	946
Medium	1,352	1,556	1,755	1,979	2,228	2,480	1,892
High	2,028	2,334	2,633	2,969	3,342	3,721	2,838
MV Insurance as % of 2014/15 Govt. Health Exp - High Scenario	2.3%	2.7%	3.0%	3.4%	3.9%	4.3%	3.3%
Per Capita (US\$)	0.17	0.19	0.20	0.22	0.24	0.26	0.21
Storage and MV Insurance	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Projected Revenue (MK millions)							
Low	2,196	2,362	2,537	2,736	2,957	3,180	2,661
Medium	2,872	3,140	3,415	3,726	4,071	4,420	3,607
High	3,548	3,918	4,292	4,716	5,185	5,660	4,553
Storage and MV Insurance as % of 2014/15 Govt. Health Exp - High Scenario	4%	5%	5%	5%	6%	7%	5%
Per Capita (US\$)	0.29	0.31	0.33	0.35	0.38	0.40	0.34
MAREP and Storage	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Projected Revenue (MK millions)							
Low	2,639	2,752	2,883	3,034	3,201	3,369	2,980
Medium	3,759	3,919	4,106	4,321	4,559	4,799	4,244
High	4,879	5,087	5,329	5,609	5,917	6,229	5,508
MAREP and Storage as % of 2014/15 Govt. Health Exp - High Scenario	6%	6%	6%	6%	7%	7%	6%
Per Capita (US\$)	0.40	0.41	0.41	0.42	0.43	0.44	0.42
MAREP, Storage and MV Insurance	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Projected Revenue (MK millions)							
Low	3,315	3,530	3,760	4,024	4,315	4,609	3,926
Medium	5,111	5,475	5,861	6,301	6,787	7,279	6,136
High	6,908	7,421	7,962	8,578	9,260	9,949	8,346
MAREP, Storage and MV Insurance as % of 2014/15 Govt. Health Exp - High Scenario	8%	9%	9%	10%	11%	12%	10%
Per Capita (US\$)	0.57	0.59	0.62	0.64	0.67	0.70	0.63

Data Sources: MoFED; Reserve Bank of Malawi, MERA, and National Police Headquarters. For per capita estimates, 1US\$=MK 721.07
MV=Motor Vehicle; Govt. Health Exp = Government Health Expenditure

Figure 19: MAREP, Storage and MV Insurance (MK million)



Data Sources: MoFED; Reserve Bank of Malawi, MERA, and National Police Headquarters.
 MV=Motor Vehicle Insurance. For per capita estimate, 1US\$=MK 721.07

6. CONCLUSIONS AND RECOMMENDATIONS

78. Despite recent improvements in key maternal and child health outcomes, there are huge gaps in service coverage and poor quality of services which are symptomatic of a poorly financed and/or inefficient health system. The underlying health system bottlenecks are: critical shortage of key health systems inputs (human resources, medicines and medical supplies, and poor/inadequate infrastructure); and poor governance and accountability (including poor public finance management). As a consequence, the health sector is currently not able to deliver on key policy commitments of access and affordability as enshrined in the country's Constitution which seeks to "*provide adequate health care, commensurate with the health needs of Malawian society and international standards of health care*".

79. The study concludes that domestic financing for health and total health expenditures as shares of GDP are relatively high but the actual amount of money available is inadequate. For instance, Government health expenditure per capita is less than one-third of the country's total health expenditure per capita. Thus, while the GoM has already adequately prioritized health, the resources being provided are inadequate due to the small size of the GDP.

80. A systematic analysis of the potential for increasing fiscal space for health in most of the key areas are limited particularly due to the weak macro-economic environment. Despite these challenges, fiscal space for health could still be increased by: (i) Improving efficiency in the health sector, and (ii) Generating additional resources through earmarked taxes. Improving efficiency provides the best option for increasing fiscal space for health in Malawi given that the potential savings could be much more than the US\$0.63 per capita that could be raised from introducing earmarked taxes for health. A dedicated study should be conducted to examine in detail, the sources of inefficiencies, ways of addressing them, and actual potential efficiency savings.

81. Though low, earmarked taxes on fuel and motor vehicle insurance could provide the health system with some resources to address some of the bottlenecks in the health system. However, earmarked taxes are associated with some risks that are highlighted in the report. This includes a reduction in flexibility of public finances and resource allocation, and the possibility that health budgets are reduced by the corresponding increase in funding from earmarked taxes. Therefore, if earmarked taxes are used, decisions should be made on whether this intervention will be temporal or long term, and linked to the overall tax reform process. Furthermore, the Malawian Government should strive to increase overall government funding to the health sector through the broader tax system. Consequently, emphasis should be on improving efficiency in overall revenue collection by MRA. Given that the Malawian Government is in the process of reviewing the overall tax system, it will be extremely important to align all proposals on earmarked taxes in the health sector to the overall tax reform process.

82. External financing is the most substantial and important source of health financing in Malawi. However, the declining trend in external financing poses the greatest threat to future financing and provision of better health care in Malawi. Therefore, there is need for external financing for health to continue for a couple of years to avert a further decline in funding levels and intervention coverage. The Government could achieve this by regaining the confidence and trust of development partners by putting in place robust governance and accountability systems. On the other hand, 62 percent of the funding from external development partners is spent on three diseases (HIV/AIDS, Malaria, and Reproductive Health) which leaves the other components of the health system largely underfunded. Thus, development partners should reduce fragmentation, and increase predictability and flexibility in resource allocation. The study also shows that predictability and execution of the public health budget is low while financial disbursements are input-based rather than results-based. There is also inconsistency in the allocation of public resources due to the absence of a needs-based resource allocation formula. Therefore, the study recommends for an increase in predictability and budget execution, transition to results-based financing, and development and use of a needs-based resource allocation formula.

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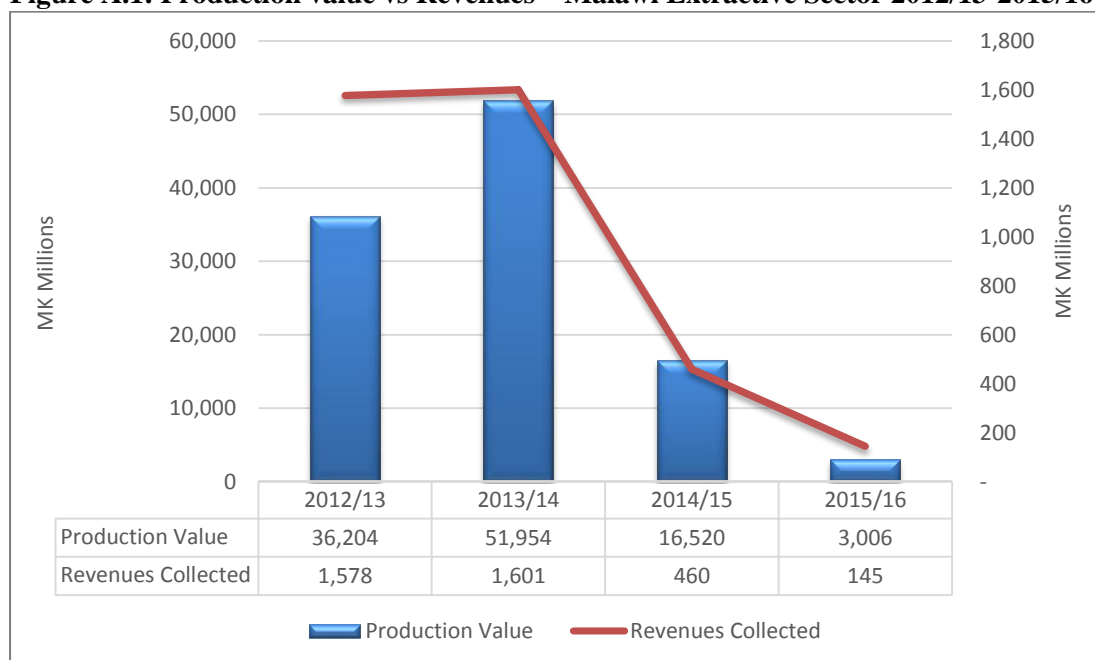
Annexes

Annex 1: Extractives Industry

Mining activities in Malawi

Mining activity in Malawi is dominated by the extraction of uranium, coal, cement, agricultural lime; and gemstones and ornamental stones such as amethyst, garnet, ruby, sapphire, tourmaline, agate, rose quartz, aquamarine, and corundum (U.S. Department of the Interior, 2015). The mining sector accounted for only 0.8% of the GDP in 2009 but in 2010, the value of output increased by 524.8 percent because of increased production from Kayelekera Uranium Mine (ibid). In 2013, the mining sector accounted for 5.2 percent of the GDP (ibid). And according to the Malawian Government, mining has potential to significantly contribute to Malawi's GDP and is projected to overtake agriculture as the major contributor to GDP. However, since 2013/14, there has been a significant reduction in uranium mining activities particularly due to the suspension of production at Kayelekera Uranium Mine in 2014. As shown in Figure A.1, the production value reduced from MK 52 billion in 2013/14 to MK 3 billion in 2015/16. Revenues collected also reduced from MK1.6 billion in 2013/14 to MK 145 million in 2015/16.

Figure A.1: Production value vs Revenues – Malawi Extractive Sector 2012/13-2015/16



MERA and MoF (Revenue Division)

Looking ahead, the mining sector is expected to continue experiencing modest growth estimated at 0.4 percent in 2016 and 1.6 percent in 2017. This is because it will take some time for potential exploration to take place and bear fruit. In addition, resumption in production at the Kayelekera Uranium Mine is not expected to take place in the course of 2016 and 2017 as international uranium prices remain low³⁸. Still, the country has mineral potential as demonstrated by the number of companies that are actively engaged in mineral exploration and mining development. The minerals being sought after include rare earth elements, Niobium, Uranium, Zircon, Tantalite, Limestone and heavy mineral sands. The major projects in the pipeline (Table A.1.1) include: (i) the Kanyika multi-commodity project; and (ii) Mangochi cement production by Bwanje Cement Company and Cement Products Limited. Globe Metals and Mining Company is also expected to start mining niobium at Kanyika in Mzimba district in 2016. The project has an estimated deposit of around 50 million tonnes of various minerals comprising niobium, tantalum, zircon and uranium. This could earn Malawi in excess of US\$100 million per annum.

³⁸ MoFED - Economic Report, 2016

Table A.1.1: Potential Mining Projects

Company	Minerals to be Mined	Status
Globe Metals & Mining	Niobium, Uranium, Zircon and Tantalite	Mining Agreement Negotiation
The Bwanje Cement Project	Limestone	Bankable Feasibility Study
Lynas Corporation	Rare earth elements	Bankable Feasibility Study
Tengani Titanium Minerals Ltd	Heavy mineral sands	Bankable Feasibility Study
Mkango Resources limited	Rare Earth Metals	Feasibility Study

Source: MoFED Economic Report, 2016

Effects of introducing a health levy in the Extractives Industry

The MoH is proposing the introduction of a health levy on extractives ranging from 1% to 3% to finance the health sector. If the new levy is considered as an investment or as an allowable deduction for tax purposes, then the mining companies could willingly contribute. But generally, imposing an additional levy in the extractives industry may render the fiscal regime unattractive. This is because an additional levy on extractives may increase the cost of investment in the sector and affect the financial viability of companies in the sector. For example, other than mineral royalties and the corporate income tax that companies in the mining sector are already paying, they are also contributing to corporate social responsibility activities such as provision of water, schools, and clinics, among others. Although, these activities are philanthropic, they affect the funds available for investment into core mining operations. Furthermore, depending on the design of the new levy i.e. whether the levy is applied on production or profitability, there is a potential of introducing regressivity in the fiscal regime. Lastly, the extractive industry is a highly volatile sector and may not be able to provide a stable flow of income.

Revenue generation potential - Extractives Industry

According to the Department of Mines, Globe Metals and Mining Company is expected to start mining operations in 2016 which could earn Malawi in excess of US\$100 million per annum. Assuming this materializes at 60 percent production over the period 2016/17-2021/22, a health levy on extractives would generate an average of MK1.4 billion (US\$1.9 million), MK2.7 billion (US\$3.8 million), or MK4.1 billion (US\$5.6 million) per annum at the low, medium, and high case scenarios, respectively (Table A.1.2). For more details see Annex 4 (A.4.3).

Table A.1.2: Projected Revenue - Extractive Health Levy (MK million)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Low (1%)	1,355.66	1,355.49	1,355.32	1,355.15	1,354.98	1,354.82	1,355.66
Medium (2%)	2,711.31	2,710.97	2,710.64	2,710.30	2,709.97	2,709.63	2,711.31
High (3%)	4,066.97	4,066.46	4,065.96	4,065.45	4,064.95	4,064.45	4,066.97

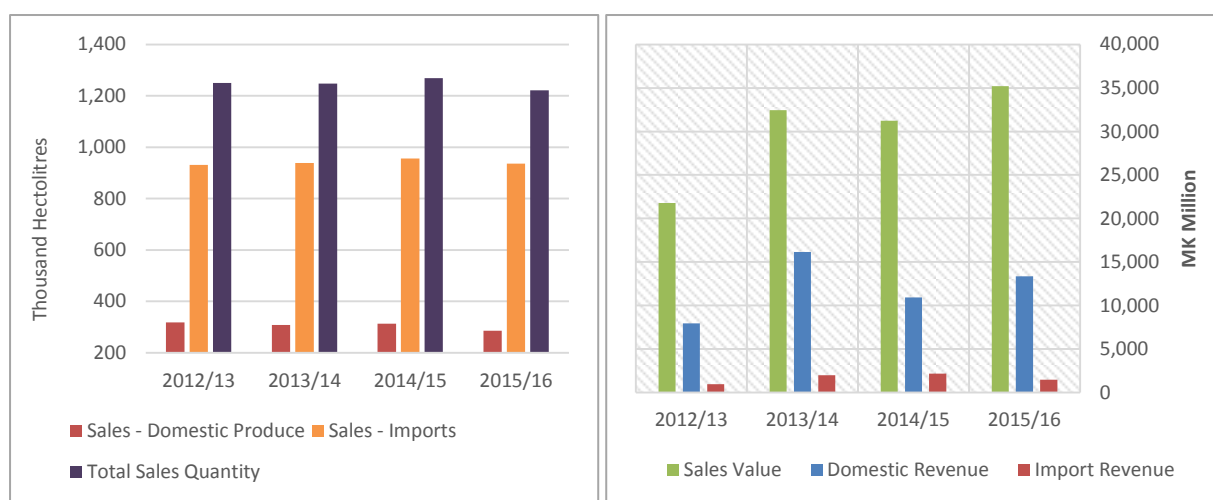
Data Source: Department of Mines and MoFED (Revenue Division)

Annex 2: Alcohol

Demand for alcohol in Malawi

Consumption of alcohol in Malawi is considerably low. A 2009 nationwide survey showed that among people aged 24 to 64, 30.1 percent of males and 4.1 percent of females consume alcohol while 19.2 percent and 2.3 percent of males and females, respectively, are considered heavy drinkers³⁹. WHO (2015c) further shows that in Malawi, consumption of pure alcohol for people aged ≥ 15 years is about 2.5 litres per person which is significantly lower than the African average of 6 litres per person, and the global average of 6.2 litres per person. Consumption of alcohol has a direct impact on domestic production, importation, and sale of alcohol. In Malawi, between 2012/13 and 2015/16, sales quantities for alcohol decreased by an average of 2.2 percent from 1,250 thousand hectoliters of alcohol in 2012/13 to 1,222 thousand hectoliters of alcohol in 2015/16 (figure A.2). This is could be attributed to an increase in the prices of alcohol due to high taxes as well as inflation. High taxation has contributed to a high sales price of alcohol which has also contributed to a nominal increase in total sales revenue which rose by 62 percent from MK 22 billion in 2012/13 to MK35 billion in 2015/16 (figure A.2). Total tax revenue from both domestic produce and imports fluctuated over the reference period but was higher in 2015/16 as compared to 2012/13.

Figure A.2: Production, sales, and tax revenue from alcohol in Malawi



Data sources: National Statistics Office

Effects of introducing a health levy on alcohol

In many countries, public policies on alcohol taxation are designed to: (i) discourage individuals from consuming excess amounts of alcohol and in the process avert crime, injury, and illnesses; and (ii) generate a sustainable source of public financing as alcohol consumption is price inelastic (Bird and Wallace, 2010). The MoH in Malawi is proposing an additional 10 to 30 percent levy on alcohol in line with these principles. However, taxing alcohol is often not progressive due to the fact that in most countries lower income individuals are likely to bear a relatively larger share of the tax burden (ibid). As such, the overall distributive effect of taxing alcohol is often regressive both between and within income groups (ibid). This explains why some people in Malawi are forced to consume cheap and illegally brewed alcohol which doesn't meet minimum health standards, and defeats the objective of introducing a tax on alcohol to promote health. On the other hand, introducing an additional levy on alcohol could increase smuggling and reduce overall tax revenue. Interviews with officials from the Reserve Bank of Malawi, MoFED, and MRA revealed that there is currently a lot of smuggling of alcohol in Malawi such that an additional tax on alcohol would further increase smuggling and reduce the overall tax revenue from alcohol. And although alcohol taxes are generally considered to be a good source of revenue due to

³⁹ <http://saapa.net/countries/malawi/alcohol-consumption-and-its-effects-in-malawi>

the in-elasticity of alcohol consumption, Bird and Wallace (2010) observe that total tax revenues from alcohol are not significant in Mauritius, Malawi, Gambia, Ghana, Mozambique, Nigeria, and Zimbabwe probably due to a high consumption of non-market alcoholic beverages. Thus, they conclude that a health tax on alcohol can only offer a sustainable tax base in developing countries if there is a high consumption of alcoholic beverages that are taxed through the market (ibid).

Revenue generation potential – health levy on Alcohol

Over the period 2016/17-2021/22, the health levy on alcohol would generate an average of MK5.9 billion (US\$8.2 million), MK11.8 billion (US\$16.3 million), or MK17.7 billion (US\$24.5 million) per annum at the low, medium, and high case scenarios, respectively (Table A.2.1). For more details see Annex 4 (A.4.4).

Table A.2.1: Projected Revenue - Health Levy on Alcohol (MK millions)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Low (10%)	4,208.12	4,842.09	5,462.67	6,159.94	6,934.29	7,719.12	5,887.70
Medium (20%)	8,416.24	9,684.17	10,925.33	12,319.89	13,868.58	15,438.25	11,775.41
High (30%)	12,624.36	14,526.26	16,388.00	18,479.83	20,802.87	23,157.37	17,663.11

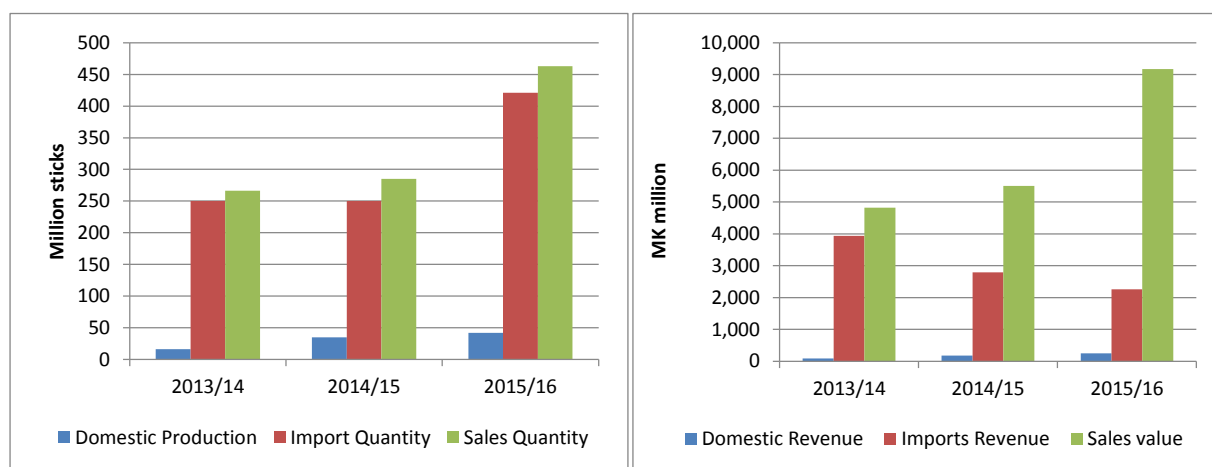
Data Source: National Statistics Office

Annex 3: Tobacco

Demand for tobacco products in Malawi

According to WHO (2015c), the prevalence of smoking any tobacco product among adults aged ≥ 15 years in Malawi is estimated at 26.6 percent for males and 6.6 percent for females. This is lower than the global average of 36.1 percent for males and 6.8 percent for women; but higher than the African average of 24.2 percent for males and 2.4 percent for women (ibid). Supply of cigarettes in Malawi has been increasing since 2013/14 with domestic production of cigarettes increasing from 16.3 million sticks in 2013/14 to 42 million sticks in 2015/16; and imported cigarettes increasing from 250 million sticks in 2013/14 to 421 million sticks in 2015/16 (figure A.3). Sales volumes also increased by 74 percent between 2013/14 and 2015/16 from 266.3 million sticks in 2013/14 to 463 million sticks in 2015/16. Nevertheless, the Malawian Government has not realized significant tax revenues from the sale of cigarettes as it has been declining over the period. This could be attributed to poor tax administration since sales quantities and values have been increasing. Tax revenue collected through imported cigarettes decreased from MK 3.9 billion in 2013/14 to MK 2.3 billion in 2015/16 while tax revenue from domestically produced cigarettes increased from MK 89 million in 2013/14 to MK 246 million in 2015/16. See Figure A.3 below and Annex 4 (A.4.5) for more details.

Figure A.3: Production, sales, and tax revenue from Cigarettes in Malawi



Data sources: National Statistics Office; Domestic production estimated from only one cigarette manufacturer (Nyasa Cigarettes Limited)

Effects of introducing a health levy on tobacco

Empirical evidence suggests that raising tobacco taxes improves population health by reducing consumption of cigarettes, and at the same time boosts government revenue. WHO (2015b) observes that the most effective policy for reducing tobacco consumption is to increase the price of tobacco products through tax increases. This is because higher taxes on tobacco products are very effective in reducing smoking and saving lives among vulnerable populations such as the youth, pregnant women, and low-income smokers (ibid). The Centre for Tobacco Control in Africa (2015) further reveals that high tobacco prices prevents initiation among potential users, induces cessation among current users, and reduces the frequency of consumption and amount consumed by continuing users. This leads to a reduction in health care expenses due to smoking related illness while on the other hand tax revenue increases. It is estimated that increasing tobacco taxes to achieve a 10 percent increase in tobacco prices will decrease tobacco consumption by 4 percent in high-income countries and by about 5 percent in low- and middle-income countries (WHO, 2015b). The cost per Disability Adjusted Life Year (DALY) saved from implementing a 33 percent price increase through higher tobacco taxation ranges from US\$3–42 per DALY saved in low-income countries, and US\$ 13–195 per DALY saved globally (Jha et al. 2006).

To make a difference with respect to lives saved as well as to raise maximum possible revenues from tobacco products, WHO (2015b) observes that Governments can collect more revenue if an excise tax⁴⁰ is used, and if taxes on tobacco are at least 75 percent of the retail price of a packet of cigarettes. Furthermore, it is more effective to use specific excise taxes, a simple tobacco tax structure, and to tax all tobacco products comparably so that the incentive for substitution is reduced (ibid). Best practices in tobacco taxation also require taxes to be increased regularly so that tobacco remains relatively unaffordable. By reviewing tobacco taxes regularly, the effects of inflation, rising incomes and purchasing power are offset.

Still, one argument that has been raised against increasing tobacco taxes is that a major reduction in tobacco consumption will translate into a reduction in employment as the tobacco industry shrinks. However, the effect depend on whether a country is a net importer or exporter of tobacco products. Another argument is that it leads to tax evasion and avoidance which reduces government revenue but not smoking. To counter this argument, WHO (2015c) suggests that having a strong tax administration system, control over the distribution chain, and curbing illicit trade (i.e. smuggling) are critical to maximizing the public health impact of tobacco taxes.

In the case of Malawi, there seems to be a huge potential to increase taxes on tobacco and raise revenue for health. This is because total tax as a percentage of the retail price of a 20-cigarette pack of the most sold brand of cigarettes in Malawi is only 21 percent, far below the recommended minimum of 75 percent (WHO, 2015b). However, consumption of tobacco products in Malawi is low, and wouldn't make a huge difference in raising sufficient revenues (IMF 2016a). Secondly, the retail prices of cigarettes in Malawi are comparable to those in Mozambique and since Malawi shares a long border with Mozambique, any significant difference in the retail prices of cigarettes between the two countries would encourage smuggling (ibid). Third, as shown in Figure A.3 above, domestic production of cigarettes in Malawi is very low and most of the tax revenue is from imported cigarettes. Thus, an increase in tobacco taxation could lead to reduced consumption and importation of cigarettes, and ultimately a reduction in revenue. The other option could be the introduction of a health levy on tobacco production as proposed by Kardan *et al.* (2012). However, this option would be highly undesirable given that tobacco (commonly referred to as the “green gold” in Malawi), is the country's key export commodity accounting for almost half of the country's total merchandise exports (World Bank 2016b). And as observed by WHO (2011) tobacco tax increases in agrarian countries like Malawi which depend heavily on tobacco leaf exports would lead to a reduction in the global demand for tobacco products that would in turn lead to significant job losses in Malawi.

Revenue generation potential – health levy on Tobacco

Over the period 2016/17-2021/22, the health levy on tobacco would generate an average of MK1.5 billion (US\$2.1 million), MK3.1 billion (US\$4.3 million), or MK4.6 billion (US\$6.4 million) per annum at the low, medium, and high case scenarios, respectively (Table A.3.1). For more details see Annex 4 (A.4.5).

Table A.3.1: Projected Revenue - Health Levy on Tobacco (Cigarettes) (MK millions)

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	Average
Low (10%)	1,096.74	1,261.97	1,423.71	1,605.44	1,807.25	2,011.80	1,534.48
Medium (20%)	2,193.48	2,523.94	2,847.41	3,210.87	3,614.50	4,023.59	3,068.97
High (30%)	3,290.22	3,785.91	4,271.12	4,816.31	5,421.75	6,035.39	4,603.45

Data Source: National Statistics Office

⁴⁰An excise tax can be levied as a specific tax per pack of cigarettes or as an ad valorem tax based on value.

Annex 4: Detailed Data Inputs and Outputs

A.4.1: Fuel

Fuel Duties and Levies				Fuel pump price: 4th November 2016							
<i>Duties</i>	<i>Cost</i>	<i>Unit</i>		<i>Petrol</i>	<i>824.70</i>	<i>Mk/Litre</i>					
Import Duty (average)	36.61	Mk/Litre		<i>Diesel</i>	<i>815.80</i>	<i>Mk/Litre</i>					
Exercise Duty (average)	39.91	Mk/Litre		<i>Paraffin</i>	<i>648.70</i>	<i>Mk/Litre</i>					
<i>Levies</i>											
Fuel Storage Levy	5.00	Mk/Litre		http://www.meramalawi.mw/index.php/resource-center/pump-prices-history							
Rural Electrification (MAREP) Levy (average)	34.34	Mk/Litre									
<i>Petrol</i>	37.11	Mk/Litre		Proposed Scenarios							
<i>Diesel</i>	36.71	Mk/Litre		<i>Share MAREP Levy at 10%, 20% or 30%</i>							
<i>Paraffin</i>	29.19	Mk/Litre		<i>Replace Storage Levy</i>							
Road Levy (average)	90.25	Mk/Litre		Assumptions on projected revenue							
<i>Petrol</i>	90.76	Mk/Litre		<i>Growth in demand for fuel in line with overall economic growth</i>							
<i>Diesel</i>	89.74	Mk/Litre		<i>Revenue from fuel levy depends on (i) volume of fuel sold per annum, (ii) rate of the fuel levy</i>							
Price Stabilization Fund Levy (average)	22.04	Mk/Litre									
Energy Regulation Levy	10.00	Mk/Litre									
MBS CESS Levy (average)	0.87	Mk/Litre									
Financial Year	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
ACTUAL FUEL IMPORTS AND DOMESTIC CONSUMPTION						PROJECTED FUEL IMPORTS AND DOMESTIC CONSUMPTION					
1. Fuel import volumes (million litres)	308.30	317.30	296.65	285.11	293.59	303.89	316.82	331.89	349.33	368.54	387.93
2. Domestic consumption (million litres)	308.30	317.30	296.65	285.11	293.59	303.89	316.82	331.89	349.33	368.54	387.93
<i>Petrol</i>	102.20	104.30	108.90	121.00	124.60	128.97	134.46	140.85	148.26	156.41	164.64
<i>Diesel</i>	197.60	208.85	186.15	163.10	167.95	173.84	181.24	189.86	199.84	210.83	221.92
<i>Paraffin</i>	8.50	4.15	1.60	1.01	1.04	1.08	1.12	1.18	1.24	1.31	1.37
REVENUE COLLECTED						PROJECTED TOTAL REVENUE					
3. Rural Electrification Levy (million MK)	9,902.88	10,207.88	9,557.48	9,195.89	9,469.50	11,199.31	11,675.83	12,231.08	12,873.95	13,582.02	14,296.41
<i>Petrol</i>	3,327.63	3,396.01	3,545.78	3,939.76	4,056.98	4,786.09	4,989.74	5,227.02	5,501.76	5,804.36	6,109.65
<i>Diesel</i>	6,333.08	6,693.64	5,966.11	5,227.36	5,382.89	6,381.80	6,653.34	6,969.74	7,336.07	7,739.56	8,146.64
<i>Paraffin</i>	242.17	118.23	45.58	28.77	29.63	31.42	32.76	34.32	36.12	38.11	40.11
4. Storage levy (million MK)	1,541.50	1,586.50	1,483.25	1,425.55	1,467.97	1,519.45	1,584.10	1,659.44	1,746.66	1,842.72	1,939.65
5. Projected Revenue (million MK): Base is value of volumes of fuel sold											
<i>Storage levy (million MK)</i>						1,519.45	1,584.10	1,659.44	1,746.66	1,842.72	1,939.65
<i>Rural Electrification Levy (MAREP) (million MK)</i>											
<i>Low scenario (10% of MAREP)</i>						1,119.93	1,167.58	1,223.11	1,287.40	1,358.20	1,429.64
<i>Medium scenario (20% of MAREP)</i>						2,239.86	2,335.17	2,446.22	2,574.79	2,716.40	2,859.28
<i>High scenario (30% of MAREP)</i>						3,359.79	3,502.75	3,669.32	3,862.19	4,074.61	4,288.92

Input data sources: 2011/12- 2015/16: MERA and MoF (Revenue Division); 2016/17-2021/22 projected estimates

A.4.2: Motor Vehicle Insurance

Motor Vehicle Insurance Taxes and Levies		Proposed Scenarios on Gross premiums								
License fee for insurers of MK150,000.00		Low	3%							
Corporate Income Tax at 30%		Medium	6%							
		High	9%							
		Assumption on projected revenue								
		Growth in gross premiums in line with growth in nominal GDP								
		Projection on motor vehicles use 4 year moving averages								
Financial Year	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
		ACTUAL NO. OF VEHICLES			PROJECTED NO. OF VEHICLES					
I. No. of vehicles in Malawi by category	192,954	218,172	226,668	251,310	271,165	291,021	310,876	330,732	350,587	
less than 1000cc	32,309	37,241	38,876	43,529	47,305	51,080	54,856	58,631	62,407	
1000 – 1500cc	28,348	34,916	37,115	42,796	47,521	52,246	56,971	61,696	66,422	
1500 – 1999cc	49,429	54,798	56,610	62,147	66,549	70,951	75,354	79,756	84,159	
1999 – 2500cc	30,689	33,766	34,831	38,083	40,661	43,240	45,818	48,397	50,975	
2500 – 3000cc	15,745	17,379	17,930	19,678	21,056	22,433	23,811	25,188	26,566	
Exceeding 3000cc	36,434	40,072	41,306	45,077	48,074	51,070	54,067	57,063	60,060	
		ACTUAL GROSS PREMIUMS			PROJECTED TOTAL REVENUE - GROSS PREMIUMS					
2. Gross Premium (MK million)	12,075.00	16,320.70	18,851.20	22,536.39	25,931.57	29,255.06	32,989.30	37,136.28	41,339.41	
3. Total No. of Road Accidents	7,390.00	7,355.00	8,194.00							
Killed	977	1,060	1,068							
Seriously injured	909	973	982							
Minor Injuries	3,411	3,861	4,131							
Vehicle damage only	2,093	1,461	2,013							
4. Value of insurance claims - Third Party Injury/Death (MK Million)	2,417									
					PROJECTED HEALTH REVENUE					
5. Projected Revenue (MK million): Base is Gross Premiums				2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
Low scenario				676.09	777.95	877.65	989.68	1,114.09	1,240.18	
Medium scenario				1,352.18	1,555.89	1,755.30	1,979.36	2,228.18	2,480.36	
High scenario				2,028.28	2,333.84	2,632.96	2,969.04	3,342.27	3,720.55	

Input data sources: 2013/14- 2015/16: National Police Headquarters & Reserve Bank of Malawi; 2016/17-2021/22 projected estimates

A.4.4: Alcohol

Alcohol Taxes and Levies											
Imported Alcohol	Proposed Scenarios on volume of domestic production and imports										
Import duty	25%	Low		10%							
Import excise		Medium		20%							
If packaged in sachets or plastic bottles	250%	High		30%							
Otherwise	95%	Assumptions									
Import VAT	16.5%	Growth in sales quantity in line with Real GDP growth									
Domestic Alcohol	Growth in sales value in line with nominal GDP growth										
Excise											
Beer	90%										
Opaque	40%										
VAT	16.5%										
Financial Year	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	
1. Production	DOMESTIC PRODUCTION AND IMPORTS					PROJECTED - DOMESTIC PRODUCTION AND IMPORTS					
Domestic Production (Thousand Hectolitres)	318.41	308.66	313.04	285.65	295.67	308.25	322.91	339.88	358.58	377.44	
Import Quantity (Thousand Hectolitres)	931.59	938.34	955.96	936.35	969.19	1,010.43	1,058.48	1,114.11	1,175.39	1,237.21	
2. Sales Quantity - (Thousand Hectolitres)	1,250.00	1,247.00	1,269.00	1,222.00	1,264.86	1,318.68	1,381.39	1,454.00	1,533.97	1,614.65	
	ACTUAL SALES VALUE					PROJECTED SALES VALUE					
3. Sales value (MK million)	21,780.00	32,450.00	31,240.00	35,200.00	42,081.19	48,420.86	54,626.66	61,599.43	69,342.91	77,191.23	
Domestic Tax Revenue (MK million)	7,964.20	16,167.95	10,935.80	13,364.80	15,977.46	18,384.52	20,740.75	23,388.19	26,328.24	29,308.11	
Excise (MK million)	4,370.50	10,813.70	5,781.20	7,556.80	9,034.07	10,395.08	11,727.35	13,224.28	14,886.66	16,571.55	
VAT (MK million)	3,593.70	5,354.25	5,154.60	5,808.00	6,943.40	7,989.44	9,013.40	10,163.91	11,441.58	12,736.55	
Revenue collected from imports (MK million)	949.90	1,974.30	2,173.60	1,481.40	1,771.00	2,037.80	2,298.98	2,592.43	2,918.31	3,248.61	
Import duty (MK million)	81.60	79.70	105.90	90.70	108.43	124.77	140.76	158.72	178.68	198.90	
Import VAT (MK million)	646.40	550.20	587.60	671.30	802.53	923.44	1,041.79	1,174.76	1,322.44	1,472.12	
Import Excise (MK million)	221.90	1,344.40	1,480.10	719.40	860.03	989.60	1,116.43	1,258.94	1,417.20	1,577.60	
TOTAL REVENUE	8,914.10	18,142.25	13,109.40	14,846.20	17,748.46	20,422.32	23,039.73	25,980.61	29,246.56	32,556.72	
4. Projected Revenue (MK million): Base is Sales Value						PROJECTED HEALTH REVENUE					
Low scenario						4,208.12	4,842.09	5,462.67	6,159.94	6,934.29	7,719.12
Medium scenario						8,416.24	9,684.17	10,925.33	12,319.89	13,868.58	15,438.25
High scenario						12,624.36	14,526.26	16,388.00	18,479.83	20,802.87	23,157.37

Input data sources: 2012/13- 2015/16: National Statistics Office; 2016/17-2021/22 projected

