



*Ådne Cappelen, Robin Choudhury,
Hamilton Kamwana, Chipo Msowoya,
Wavisanga Munyenyembe and
Arnold Palamuleni*

Documents

The 2007/8 Malawi Budget
Macroeconomic implications



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*Ådne Cappelen, Robin Choudhury,
Hamilton Kamwana, Chipso Msowoya,
Wavisanga Munyenyembe and
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Abstract:

With an expected annualised GDP growth of 4.1 percent from 2007 to 2011, the prospects for the Malawian economy is promising. The growth in production from smallholder farmers is strong due to bumper harvests in 2006 and 2007. This significantly improves household's food security and stimulates private consumption. The growth in exports is not keeping the up with that of imports, but the current account is improving due to terms of trade gains. The modest increase in import price will gradually lower consumer price inflation.

The government budget balance is improving over the period, and the domestic debt is going down. Despite of this, Malawi will still be dependent upon significant and predictable donor support in the years ahead. Financing the deficit contributes to domestic credit and money supply. The evolution in domestic and foreign assets shows a fairly stable development as share of GDP.

Keywords: Macroeconomic model, forecast, policy analysis, Government budget

Address:

Ådne Cappelen, Statistics Norway, Research Department.

E-mail: Aadne.Cappelen@ssb.no

Robin Choudhury, Statistics Norway, Department of Management Support.

E-mail: robin@mepd.gov.org

Hamilton Kamwana, Ministry of Economic Planning and Development, Economic Planning Division.

E-mail: kamwanah@mepd.gov.org

Chipso Msowoya, Ministry of Finance, Economic Affairs Division.

E-mail: chipomsowoya@finance.gov.mw

Wavisanga Munyenyembe, Ministry of Finance, Economic Affairs Division.

E-mail: wmunyenyembe@finance.gov.mw

Arnold Palamuleni, Reserve Bank of Malawi, Research Department.

E-mail: apalamuleni@rbm.mw

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1. Introduction and overview

With two – thirds of the population living in poverty, 15 percent of the adult population infected with HIV, and a very high incidence of malaria, the needs in Malawi are tremendous. On the macroeconomic side there is a history of fiscal deficits, having resulted in a domestic debt spiral, so it is obvious that the design of the government budget must focus at high-priority tasks. The freedom to act on the most urgent matters in the short run is limited and must be viewed against the need for macroeconomic stability, in particular the medium to long-term effects on the government budgets and the balance of payments. This faces the Malawian government with difficult tradeoffs.

This document aims at analysing the medium to long-term macroeconomic consequences of the main items expected to be implemented in the government budget for 2007/8. To perform the quantitative analysis we use a small macroeconometric model developed in a cooperation project between the government of Malawi and Statistics Norway. The model is mainly based on timeseries data from the national accounts from the National Statistical Office, the government statistics on revenues and expenditures from the Ministry of Finance, and the monetary statistics from the Reserve Bank of Malawi. The study is the first using the newly released national accounts statistics. The new national account is based on recommendations given in the System of National Accounts 1993 (SNA-93), and is a substantial improvement of the methodology in the preparation of Malawian national accounts. Particularly, this has led to an upward revision of GDP of about 37 percent in 2002. This is mainly due to capturing of more of production and income in the informal sector.

The document is organised as follows. In Chapter 2 we give some background information on the Malawian economy, in order to understand the current state of the economy. In Chapter 3 we give some details on the government budgets and its role in implementing the economic policy. We present a historic overview as well as the main ideas behind the 2007/8 budgets.

In Chapter 4 we analyse the results from the model simulation on the economy, based on the major points anticipated to outline the budget as well as other key variables. In this chapter we also give a quick overview of the model and discuss the main assumptions leading to our baseline scenario.

In Chapter 5 we use our model to shed some light of the planned removal of trade taxes on imports from and exports to COMESA countries. In chapter 6 we conclude the study. In Appendix 1 we present more detailed tables from our simulation.

2. Background

2.1. Malawian economy

The agricultural sector is the major player in Malawi's economy, contributing to more than 30 percent of GDP and more than 90 percent of the export earnings. About 90 percent of the active labour force is engaged in agriculture. The main crops grown in Malawi are maize, tobacco, tea, sugarcane, groundnuts, cotton, wheat, coffee, rice and pulses.

Malawi's economic reliance on the export of agricultural commodities renders it particularly vulnerable to external shocks such as declining terms of trade and drought. High transport costs, which can compromise over 30 percent of its total import bill, constitute a serious impediment to economic development and trade. Malawi's economy is faced with serious challenges such as high corruption, difficulty in obtaining expatriate employment permits, bureaucratic red tape, inadequate and deteriorating road system, electricity, water and telecommunications infrastructure further hinder economic development in Malawi. However, recent government initiatives targeting improvements in the road infrastructure, together with private sector participation in railway and telecommunications, have begun to render the investment environment more attractive.

Malawi has undertaken economic structural adjustment programs supported by the World Bank, the International Monetary Fund and other donors since 1981. Broad reform objectives include stimulation of private sector activity and participation through the elimination of price controls and industrial licensing, liberalisation of trade and foreign exchange, rationalisation of taxes, privatisation of state-owned enterprises, and civil service reform. Malawi qualified for Heavily Indebted Poor Country (HIPC) debt relief and is in the process of refining its Poverty Reduction Strategy through the Malawi Growth and Development Strategy (MGDS).

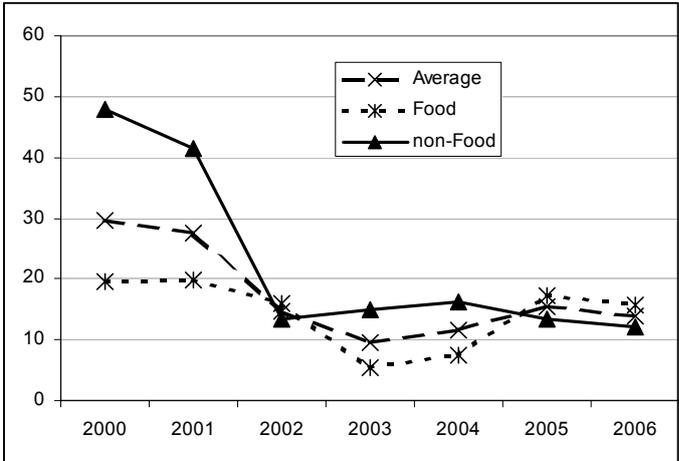
To pay its foreign debt (which today stands at \$3.3 billion dollars, or 60 percent of GNI), in the early 1990s the government of Malawi liberalised the economy, introduced stringent structural adjustment policies and privatised public services. This exposed existing business to stiff competition from foreign imports. As a result, several industries offering employment to urban people were forced to downsize their operations or close down. The textile industry was particularly badly hit, and as a result had to discharge over 70 percent of its workforce.

2.2. Inflationary trends in Malawi

Since 1964 the inflation rate in Malawi has increased steadily. During the post independence period of 1966 to 1975, annual average inflation rate stood at 9 percent. The following decade inflation rate hovered at around 12-13 percent. This increase was partly a result of the international oil price shocks in 1974-5 and that of 1979-80. These shocks propagated into spirals of cost-push inflation through the transportation costs coupled with increased fiscal distress. During the period of 1986 to 1995 annual average inflation rate increased to 22 percent. The most apparent reasons cited for this abrupt increase was the increased donor withdrawal, the disruption of the Beira and Nacala routes due to civil unrest in Mozambique and the drought that was experienced in 1991/92 growing season. Liberalization of the Kwacha in 1994 propelled the inertia of these inflationary pressures. By 1995 inflation rate went up to 83 percent mainly due to continued depreciation of the Kwacha. However, inflation was brought back to 9 percent the following year but this was not sustained and inflation went up again to 30 percent and 44.7 percent in 1998 and 1999 respectively. This is chiefly attributed to the depreciation of the Kwacha in August 1998.

As we see in Figure 1 the inflation rate experienced a downward trend especially from 2000. In 2002, annual average inflation stood at 14.8 percent from 22.7 percent in 2001. Inflation stood at 9.6 percent in 2003. In 2005 it was 15.4 percent, accelerating from 11.5 percent in 2004 but decelerating to 13.9 in 2006. The average inflation rate for the new millennium stands at 17.5 percent. This is a remarkable deceleration from the previous decade when inflation hovered above 30 percent. This is on account of slow down in food inflation and a relative stability in the exchange rate. A downward revision of surtax and electricity tariffs in 2001 kick started the deceleration of non-food inflation at the beginning of the new millennium. Despite this, non-food inflation has put up the inertia in the inflationary process in the last six years. Hence, inflation has remained within the double-digit belt. Notwithstanding this, inflation is projected to decrease as non-food inflation is anticipated to ease the pressure largely from the prevailing fiscal discipline, improved prospects for sustained food security and the stability of the Kwacha exchange rate. In early 2007 the figures show that the inflation has continued to drop and is now around 9 percent.

Figure 1 Consumer price inflation in Malawi (2000 – 2006)



Food inflation accounts for 55.5 percent and transportation 6.5 percent of the whole inflationary process. This implies that domestic price developments are chiefly determined by trends in the food costs vis-à-vis availability. More subtly, inflationary process is more of cost-push than demand pull and as a consequence demand management policies undertaken by the central bank are not adequate to curd inflation. Structural reforms are rather the most appropriate tools that should be used to control skyrocketing inflation.

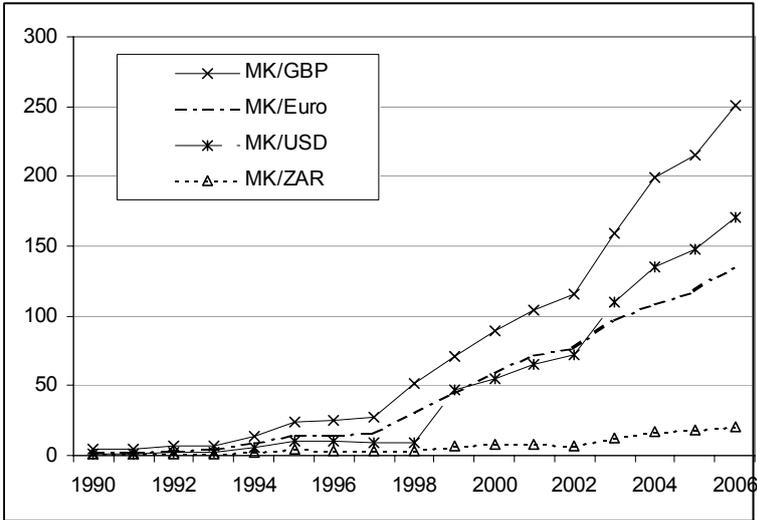
2.3. Exchange rate policy

During the post independence period covering 1964 to January 1971, Malawi was operating under the Sterling zone, which entailed that the Malawi pound was pegged to the British pound sterling at the ratio of one to one. When the Malawi Kwacha was introduced in 1971 it was pegged to the British pound sterling at the ratio of two to one up to November 1973. Then the currency got pegged to a weighted average of the pound sterling and the United States dollar. Instability of this basket compelled Malawi to abandon it and peg the local note to the International Monetary Fund (IMF) Special drawing Rights (SDR) in June 1975 and remained stable until early 1980s when the SDR had started appreciating rapidly. The local currency was then devalued by 15 percent and 12 percent in April 1982 and September 1983, respectively.

In January 1984, the local note became a weighted peg of the SDR and the South African rand owing to the fact that the SDR experienced excessive appreciation. It is also worth noting that the SDR did not fully represent Malawi’s major trading partners. At this point, the exchange rate policy was based on the trade weighted real effective exchange rate (REER) in that the objective was to maintain competitiveness of the local currency against those of its trading partners by ensuring that the local

currency was not appreciating. However, Malawi experienced high inflation rates during this period and experienced constant periodic devaluations of the Kwacha. In 1992 the Kwacha was devalued twice in order to be at par with its trading partners as the South African rand, Zambian Kwacha and the Zimbabwean dollar were devalued during 1991-2. This episode propelled speculative attacks on the Kwacha. Again some major bilateral donors commenced aid cuts and/or withdrawal during the same period as a way of ensuring political compliance by local authorities on certain governance issues. Consequently, confidence in the local note became undermined. On February 7, 1994 the Kwacha was floated and a foreign exchange market administered by the central bank was also introduced in order to conduct weekly auctions of foreign exchange. These weekly auctions

Figure 2 Malawi Kwacha exchange rates against major currencies



determined the exchange rates. Successful bidders, who bid through commercial banks, would buy the foreign exchange at bidding prices and not the clearing rates. The Reserve Bank of Malawi intervened by way of the amount of foreign exchange supplied on to the market. Other foreign exchange dealers, the foreign exchange bureaux popularly known as Bureau de Changes, were introduced to facilitate trading on the foreign exchange market.

The Kwacha depreciated from K4.50 per United States dollar in January 1994 to K7.3 in June 1994. Weekly auctions of the foreign exchange market were discontinued in June 1994. The Kwacha steadily depreciated up to K15.3 at end 1994 where it remained stable. Following the discontinuation of the auction system, the exchange rates was to be determined by the Authorized Dealer Banks (ADB) and the rates offered by the bureau de changes to signal parallel market developments. The ADBs work out their own operating rates based on the available information. The Reserve Bank of Malawi continues to intervene in the market by seasonally buying and selling foreign exchange to the

market as a way of controlling excessive fluctuations in the Kwacha. However, the significantly large depreciation from K72.5 per US dollar in 2001 or from K77.1 in 2002 reflects the depth of external imbalances, scarcity of foreign exchange and the extent of the overvaluation of the local currency before liberalization of the foreign exchange market. Since May 2004, the Reserve Bank maintains a band as a way of controlling the excessive volatility in the Kwacha exchange rate. The Malawi Kwacha currently trades at K136.7 per United States dollar.

2.4. Malawi Growth and Development Strategy

The Malawi Growth and Development Strategy is the overarching operational medium-term strategy to attain Malawi's Vision 2020. The main thrust of the MGDS is to create wealth and achieve poverty reduction through sustainable economic growth and infrastructure development. It is expected that the country will be transformed from being an importing and consuming economy to a manufacturing and exporting economy. Unlike the Malawi Poverty Reduction Strategy (MPRS), which advocated for poverty reduction through social consumption, the MGDS represent a policy shift towards sustainable economic growth and infrastructure development.

To ascertain immediate economic benefits for the people of Malawi arising from this strategic shift, the MGDS will in the next five years place emphasis on six key priority areas of 1) agriculture and food security; 2) irrigation and water development; 3) transport infrastructure development; 4) energy generation and supply; 5) integrated rural development; and 6) prevention and management of nutrition disorders, and HIV and AIDS. The integrated rural development in particular will, among others things, entail the establishment of rural growth centres. This is expected to rejuvenate the rural economies and transform them into potential engines for economic growth that translate to increased redistribution of wealth countrywide.

The MGDS has five thematic areas in which progress must be made if the overall strategy is to be successful. These thematic components are 1) sustainable economic growth; 2) social protection; 3) social development; 4) infrastructure development; and 5) improved governance. The strategy should maintain focus on accelerated and sustainable growth, while also outlining steps to ensure social development, good governance and environmental sustainability. Progress in all of these areas will increase prosperity, reduce poverty and assist in the achievement of the Millennium Development Goals.

Government will spearhead the implementation of the MGDS through the budget, in line with the Medium Term Expenditure Framework. However, the strategy calls for active participation of all stakeholders in the implementation process, which will have to complement government efforts by aligning and harmonizing their own programmes and activities with the priorities set out in the MGDS. Political-will, change of mindset, and cooperation among the stakeholders will be paramount for the successful implementation of the strategy.

3. The government budget

3.1. Introduction

A budget is a spending plan used to allocate resources to accomplish a nation's objectives. This management tool coordinates anticipated expenditures in an effort to maximize resources. Just like any developing nation, Malawi has a development agenda outlined in the national development strategy. Over time this has evolved from the generic development policies in the late 1980s and early 1990s within an environment of Structural Adjustment Programs. However with the global change in focus towards poverty reduction in the late 1990s and early 2000, Malawi saw the emergence of Poverty Alleviation Programme in 1995 and the MPRS in 2002. As a standard platform for translating these policies and strategies into relevant outputs, the budget has been a readily available conduit enabling the linkage between policy documents and available resources.

3.2. The budget process and macroeconomic policies

The budget process is the central tool for management of public expenditure and thus policy implementation. It consists of a number of stages: the setting of national and sectoral priorities; the preparation of macroeconomic/budget framework and the actual budget; the implementation of the budget; monitoring of expenditure; evaluation and audit; and policy review. The stages are interdependent and improvements in public expenditure management depend on improvements at all stages. The Medium Term Expenditure Framework (MTEF) is a particular way of conducting the budget process, focusing on prioritisation, linking outputs to inputs, and medium-term strategic expenditure planning. However the fundamental problem of the MTEF process in Malawi has been that the budget process is dominated by the preparation of the budget, which remains an incremental inventory of inputs prepared by accountants in line ministries. The MTEF is seen as a separate system of unimplemented prioritisation exercises prepared for the Ministry of Finance by the planning sections of line ministries. Though, with the MGDS, lessons learnt from weaknesses between development policies and the budget have been taken into account, and the 2007/08 budget is expected

to set the standard upon which both the MTEF framework takes a big role in the budget process, and the actual translation of national objectives and policies into achievable outputs.

With this background, the budget being a tool for implementing and executing government/ macroeconomic policies provides a platform through which the government implements these national development strategies. To enable proper budget monitoring and evaluation, the budget is thus broadly divided into recurrent budget and development budget, where the former is largely budget for current expenses and the latter includes locally and donor funded public investments and their associated recurrent expenditures. Generally, there have always been large discrepancies between these two as the recurrent budget, accounts for a larger proportion of the budget. This is explained by the larger contribution of donor inflows on the development budget, that also happen to be largely uncertain year in year out. In the past the actual recurrent expenditure has always surpassed the approved budget, thereby driving much of the persistent and unsustainable budget deficits. This is defeating the whole purpose of using the budget as a tool for policy implementation. Furthermore, with the MPRS, it was visibly clear that there was poor linkage between the budget and the national development strategy. With these visible discrepancies, the usual ways of financing such deficits has been largely through domestic borrowing and minimally through foreign borrowing. In the past, within an environment of interest rate controls government was able to introduce an implicit tax by borrowing at negative interest rates thereby checking on the growth of domestic debt. However, in the era of liberalization this has not been possible and as a result domestic debt has grown overtime to unsustainable levels.

3.3. The role of the IMF in the budgets

The role of the IMF vis-à-vis the budget ideally manifests itself in the role of the budget as a tool for policy implementation. For national development strategies to take root the macroeconomic environment has to be supportive. Consequently countries worldwide agree to have macroeconomic programs with the IMF, to enable them establish a macroeconomic policy environment supporting their development agendas. On the same note, Malawi's budget being a macroeconomic policy tool itself has thus seen it under scrutiny in all IMF programs. Visibly, when the country was implementing the MPRS as a development agenda, on the other hand, it was also implementing an IMF Poverty Reduction Growth Facility (PRGF) program to ensure that implementation of the MPRS and the related budgets over the whole MPRS period would not introduce macroeconomic distortions. As such the role of the IMF, as far as the budget is concerned, is therefore that of oversight and technical adviser. Recently the IMF's role has been very visible with the regular monitoring and advisory role they play in the regular PRGF monitoring meetings and the review missions. This provides foras

where the budget, as presented by the authorities, is scrutinized with respect to its impact and support for the existing national development strategy, but also on the overall effort of ensuring a stable macroeconomic environment as one of the spurs for economic growth.

3.4. Objectives and performance of the budget

There is a widespread perception that the budget is a tool for implementing the national development agenda expected to align available resources to expenditures. The linkage between the development agenda and the budget was not strong and resulted in weak performance. This was clearly highlighted in reviewing the MPRS, where it was noted that this weak linkage between resources and strategies contributed to the poor performance of the MPRS, and thus defeating the whole purpose of having a budget as a tool for policy implementation.

Therefore, starting from the 2007/08 financial year, the preparation of national budget will be guided by the priorities in the Malawi Growth and Development Strategy. In this regard the policy content of the budget has been strengthened to ensure a more robust linkage between the budget and the MGDS. To this end, the medium term budgets will aim at implementing the MGDS prioritised six key areas during the next three years up to 2009. The 2007/08 budget is framed against a background of high expectations from the general public, after reaching the HIPC Completion Point and the consequent debt relief. However, government has seen it necessary that the savings realised be allocated equitably between new development projects and the retirement of the huge domestic debt, as benefits of the debt relief will be realised over a long period of about 20 years, and with annual savings averaging K15 billion. As has been the case in the past five years, the budget's main objective has been to reduce poverty but also spur economic growth. This has therefore shaped the budget in such a way that both the recurrent and capital expenditure components of the budget are pro-poor driven.

3.4.1. Performance of the Budgets from 1998/99 to 2005/06

Assessing the performance of the budget as a tool for implementing a nation's development agenda falls on both the functional and economic analytical fronts. Going by the demands of the aggregated macroeconomic model this paper focuses on, it is best to undertake an economic analysis of the budget with a focus on the period 1998/99 through 2005/06.

Without departing from traditional fiscal analysis, an analysis of the overall balance including grants or what is otherwise called fiscal surplus or deficit with reference to Figure 3 indicate that it worsened from 5.1 percent of GDP registered in 1998/99 to 5.6 percent in 1999/2000 largely responding to the

influence of election spending following the May 1999 general elections. Nonetheless fiscal policy remained moderately prudent and did not result in wider macroeconomic distortions within the economy

Figure 3 Fiscal deficits in Malawi (percent of GDP)

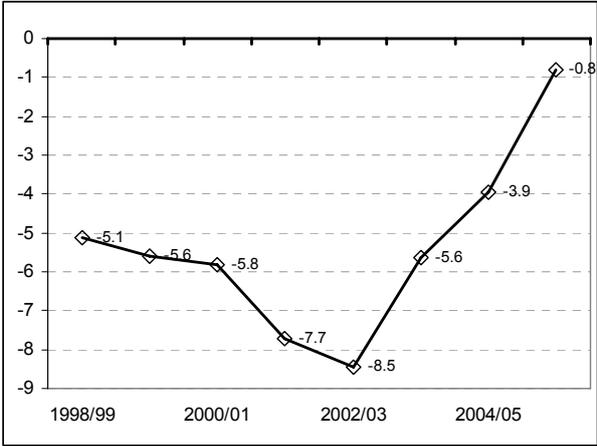
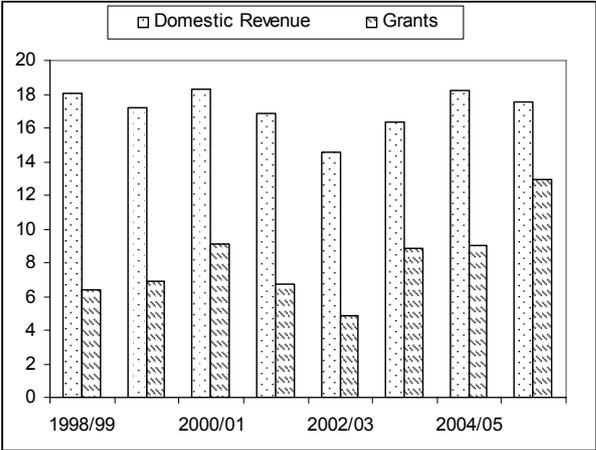


Figure 4 Available resources (percent of GDP)



Nonetheless, laxity in fiscal management led to a worsening of the deficit to 7.7 percent of GDP in 2001/2002 despite having the PRGF program with IMF. This in itself brought in wider distortions in many of the macroeconomic fundamentals thereby going off track in the PRGF program that prompted the IMF to cancel the program. This resulted in further worsening of the deficit in 2002/03 to 8.5 percent of GDP. This can further be explained by “donor aid flight” as the fiscal indiscipline indicated that the country was not committed to ensuring that the benefits of implementing the poverty reduction and development strategies were not easily eroded by the macroeconomic distortions. From Figure 4, tracing the trend of the resource envelope as a percentage of GDP we see that from peaks in grants of 6.1 percent of GDP levels in 1998/99 to 9.1 percent of GDP in 2001, grants reached its lowest share at 4.8 percent in 2002/03. This aid withdrawal is also reflected in the development expenditure in Figure 5 and that of trends of overall balance excluding grant in Figure 6, which grew from 8.3 percent of GDP in 98/99 to 10.4 percent in 99/00 but had declined to 5.4 percent of GDP in 2002/03. Consequently the remaining resource base against infinite expenditure requirements, which could not be downsized substantially within a short period after the donor flight, compounded the deficit growth.

However, Malawi’s experienced a reversal in fiscal management by 2004, supported by a renewed political will that wanted to see restored macroeconomic stability. Consequently, as can be traced from Figure 3 the overall deficit retained to the 1999 levels of around 5.6 percent in 2003/04 then further improved to 3.9 percent of GDP in 2004/05 as the country embarked on an IMF Staff Monitored Program (SMP). Building on the achievements under the SMP, the country thus embarked on a three

Figure 5 Development expenditures

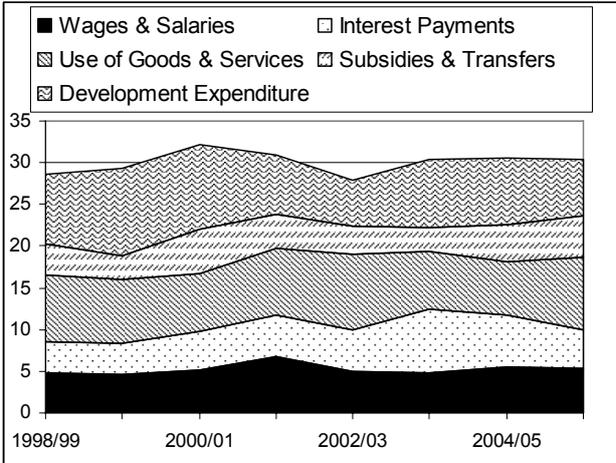
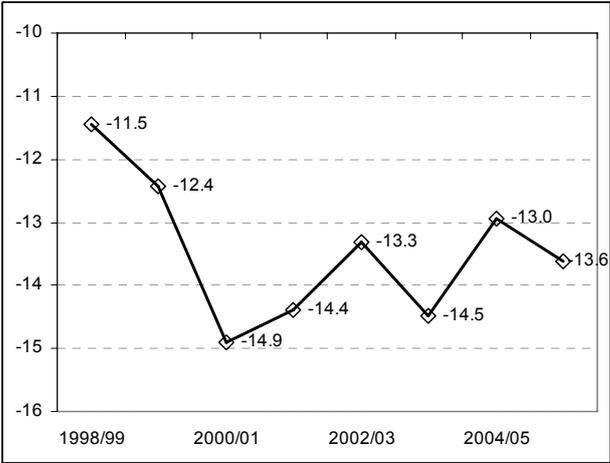


Figure 6 Overall balance excluding grants



year PRGF program and the improved fiscal management saw the deficit improve further to below 1 percent of GDP in 2005/06.

Further analysis into the performance of the budget can also be traced from Figure 5. Dissecting the budget through its economic classification indicate that through the period under consideration, total expenditure as percentage of GDP starting at 29.5 percent of GDP in 1998/99 continued to grow to 29.7 percent of GDP in 1999/2000 and a peak of 33.2 percent in 2001/02, reflecting the aforementioned laxity in fiscal management. This development went on despite an internal shift in expenditure between the different expenditure categories as can be seen in the trends in interest payments, use of goods and services and subsidies and transfers throughout the period.

No economic analysis would be complete without considering trends in public investment. In the Malawian budget this is largely accounted for in the development budget, an obvious choice in the nomenclature, as not all the development budget is capital budget. Having both domestically and donor financed components; the Malawian development budget is largely driven by the donor component. This would be reflected in the trends of development expenditures vis-à-vis the withdrawal of donor inflows between 2001 and 2003, which saw a substantial downsizing of the capital expenditure and thus public investment. However, after 2004 as Malawi negotiated for the IMF Staff Monitored Program the country saw some resuscitation in prudent fiscal and general macroeconomic management which resulted in renewed donor confidence and thus resumption of foreign inflows. As can be traced in Figure 5 the development budget thus reverted to its normal levels of around 7 to 8 percent of GDP from 2004/05 and thereafter.

While donor inflows have provided a fiscal cushion for the budget, any economic analyst would question the sustainability of fiscal policy in Malawi with such substantial donor aid dependence. In general, with an unsustainable fiscal policy, a first obvious move would be to look at the developments in domestic revenues. However, in Malawi, they already hover around 17 - 18 percent of GDP, which is by standards high, particularly viewed in the light of a large subsistence economy. Realizing that the tax base is narrow, and that reduction in expenditures is hard as the needs are so enormous, explains why Malawi depend on donor inflows.

Agreeing with the Laffer curve analysis it is likely that any upward adjustment in the tax rates to improve revenues, might prove ineffective, and thus focus should go towards exploring new revenue sources, improving on tax administration and on collection of non-tax revenues.

In closing the performance of the budget part, with the visible fiscal and general macroeconomic improvements, continued successful budget management and general fiscal consolidation efforts provide a base to ensure that the national development strategies have visible and necessary outputs, and contributes to improvement of the general macroeconomic environment.

Nonetheless, building on this improvement would require enhanced research, which should address substantial dependence on donor aid inflows to support the budget in the long run, and the resulting sustainability of fiscal policy as would be traced from the evolution of the overall balance excluding grants in Figure 6. Not requiring overemphasis, 2004/05 and 2005/06 levels of around 13 percent of GDP in the overall balance excluding grants show that fiscal policy is unsustainable. Consequently, the aggregated macroeconomic model upon which this paper is built, initiates a research culture that would provide solution to such problems, but also ensure the resuscitation of a full MTEF process, as such macroeconomic models would initiate the formulation of the medium term macroeconomic frameworks that support and kick-starts any MTEF.

3.5. The intentions with 2007/08 budget

The allocation of resources in the 2007/08 budget has been guided by the policies articulated in the Malawi Growth and Development Strategy. This anchoring makes this budget unique.

The overall objective, to reduce poverty through sustained economic growth and infrastructure development. A balance between investing in social and economic activities is essential to attain the

Millennium Development Goals (MGDs) because of the sustainability ripple effect. To this effect, activities that have direct impact on poverty reduction have also been provided for.

Government continues to improve public finance management to create a favourable environment for economic growth. Relevant reforms to this effect include implementation of government's own formulated Public Finance and Economic Action Plan, implementation of new travel policy that fosters transparency and accountability, and implementation of Medium Term Pay policy that incorporates pension reform.

In addition, in the coming year, government will embark on revising some of its Public finance legislation to align it with the current environment and foster good economic governance. The Public Finance Management Act will be revised to incorporate a chapter on Internal Audit and to introduce controls surrounding computerized accounting. A Budget law will be proposed to strengthen and formalize the budget process.

In the 2007/08 budget it is expected that both tax and non-tax revenues will increase significantly. The increase is on the account of revision of user fees by 25%, the fees which are charged at the moment are artificially too low and do not reflect the current economic situation.

The projected increase in taxes is also linked to the corresponding GDP growth and a stable inflation rate. Government also intends to reorganize the revenue collection agents. For instance all revenue collected by the Road Traffic Department, the Civil Aviation will now be under the Malawi Revenue Authority.

The main important issues to look at in the 2007/08 budget are Food Security, Education, and health and road infrastructure.

- Government has floated a tender of 170,000 metric tonnes of fertilizer as compared to the 150 metric tones from previous years. This is in an effort to further improve the food security situation of the country. It is the government's intention to see a Malawi which is food secure. It has thus put in place measures that will ensure the 2007/08 subsidy program to run smoothly.
- The 2007/08 budget will see more resources being directed to improve the education system of the country. Government will build more girls hostels across the country and also erect

more houses for secondary school teachers. This will, in the long run, result in increased enrolment of girls in schools and motivate teachers.

- Government will continue to prioritise the health of its citizens. In the 2007/08 budget, it has set aside resources to build houses in Rural Health Centres nation-wide.
- The economy has prospered in the last few years, while this is a positive development it has also come with undesirable consequences. For instance increased road accidents that have resulted into injuries and deaths to pedestrians. Government has therefore taken a step ahead to protect its citizen and provided funds to establish footpaths in the urban areas.
- Additionally, government will continue to implement a salary review for the 2007/08 budget which will enable civil servant to have a better salary agreement than before.

4. Analysing the effects of the proposed budget

4.1. Introduction

In this chapter we briefly present some of the main features of the model¹. Our simulation on the economic future for Malawi is based on our macroeconomic model. For the model to produce sensible results we need to make quite a few assumptions on key variables for the economy. Here we will discuss the most important assumptions and describe the main simulation results.

4.2. About the model

The development of this small macroeconomic model is a first step in an effort to construct a more disaggregated model of the Malawian economy based on new national accounts data. Main assumptions are for a number of fiscal policy variables such as government employment and purchases, the average government wage rate, and direct and indirect tax rates. On the monetary variables, we set assumptions for interest rates and some financial assets, such as government net lending from abroad. Other important assumptions relates to the foreign market, such as demand for Malawian exports, world market growth and prices, and foreign grants. In this model version private and government investments are exogenous. Real wages are also set, as nominal wage rates are linked to consumer prices.

The model works like a simple Keynesian model. Let us illustrate this using two small examples.

¹ For a full overview of the model see Cappelen et. al. (2006).

- An increase in government purchases will increase incomes, employment and private consumption and thereby also GDP in the private sector. Tax revenues will increase but not sufficient to eliminate the expenditure increase, so the government budget balance will deteriorate and increase government domestic lending. Increased demand will increase imports and increase the current account deficit.
- An increase in world demand for Malawian exports, given the terms of trade, will increase exports and GDP. Increased income will again increase employment and household incomes and thereby private consumption. Export revenues will increase and so will imports because of higher domestic demand, but still leads to an improvement in the current account balance, which may either reduce private lending or increase the foreign exchange reserves. Worsening terms of trade, say as a result of higher import prices, will worsen the current account balance and increase domestic prices. Further, reduced employment will reduce real household incomes and private consumption.

The government generates revenues from taxes, grants and new debt issuance. The government purchases goods and services from the business sector, including government owned enterprises, and hire labour from the households. It also provides transfers to the household sector, and services the existing debt. Borrowing from the central bank finances government deficits.

Households receive wage income both from companies and the government. In addition, they receive parts of operating surplus and transfers. They consume goods that is either produced domestically or imported. The level of consumption depends upon real disposable income, both in the short and long run. There are no wealth or interest effects on consumption. Smallholder consumption is assumed equal to their production. The households pay taxes to the government.

Private sector is separated into a smallholder sector, which mainly produce for own consumption, and the formal, or monetary, part of the private economy. The business sector comprises standard businesses with profit maximization behaviour, receiving income from selling final goods and services, both in the domestic market and for export. Companies pay taxes to the government. To determine private sector employment we have estimated an inverted production function, and added some dynamics to allow for short-term deviations between actual and “desired” demand for labour. In the long run, labour demand follows output, adjusted for a constant growth in the capital stock and total factor productivity. Output of the smallholder sector is proportional to the number of self-

employed, and, increased employment in the market economy is at the expense of reduced employment in the smallholder sector.

As already mentioned, government budget deficits are assumed financed by the monetary authorities buying treasury bills, printing money to do so. The stock of money is determined partly by the net foreign asset position, dominated by the foreign exchange reserves, and partly by the domestic credit to the government. But also domestic credit to the private sector from the banking system is significant in this respect.

The interaction with the rest of the world comes from the capital market, goods and services, and grants given to Malawi. To determine the volume of Malawian exports to the world market, we have implemented an export equation of the Armington type. Export volume depends on export prices relative to world market prices, but also on world markets size. In the long run, for given relative prices, exports will grow at the same rate as the world market. The current account surplus (deficit) is used to increase (decrease) foreign assets, or to reduce (increase) private sectors foreign debt, given the level of foreign transfers (grants) to the government. Import into Malawi is determined as a share of domestic demand. The share depends on import price (including taxes) relative to the domestic price. The price of exports depends on wages and other domestic cost drivers, as well as world market prices. In the short run the export price vary with changes in foreign prices and domestic costs, while in the long run, export prices follows domestic costs.

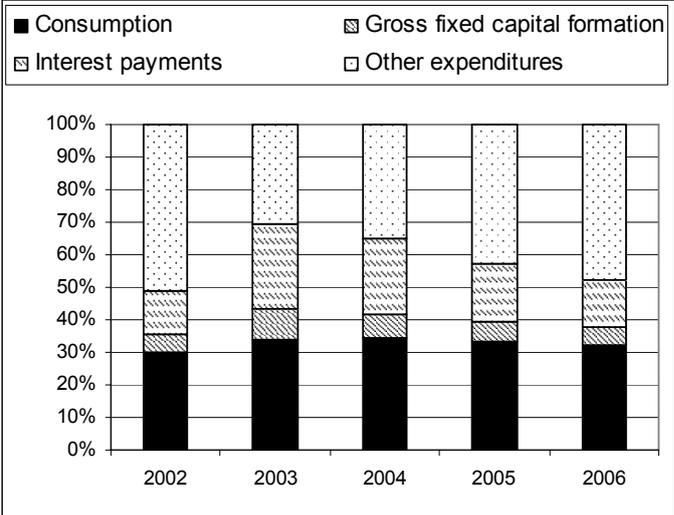
4.3. Policy assumptions

As already mentioned, the government of Malawi has a history of fiscal deficits. In the beginning of the millennium the government run into fiscal problems due to problems with some of the parastatals, overruns on the government wage bill, overspending on other current expenditures, and increase in interest rates coupled with rising domestic public debt. In recent years though, the government has been committed to stay within the approved budget, which has also been acknowledged by the IMF (cf. IMF 2004).

In Figure 7 we presents the main components of government expenditures measured in percent of total expenditures. From that figure we see that “Other expenditures”, composed of purchases of goods and services, subsidies and transfers, and expenditures for arrears, constitutes the bulk of expenditures for all years except 2003. We see that interest payments, sum of domestic and foreign, has come down

from about 25 percent of total expenditures in 2003 and 2004, to 18 percent in 2005 and about 14 in 2006.

Figure 7 Government expenditures 2002 – 2006 (percent of total)



For the years to come, government expenditures on goods and services is assumed to grow at 3 percent in real terms, close to the assumed population growth rate. As share of nominal GDP expenditures goes down from 5.5 percent in 2006 to 4.8 in 2007. Thereafter we assume a gradual decline in the share reaching 3.4 percent in 2011. Subsidies and other transfers from the government to private households, including amongst other things pensions and gratuities and fertilizer subsidies, is expected to grow by 17 percent in 2007, 14 percent in 2008 and thereafter at 12 percent.

Further, we assume the number of government employees to grow by 2 percent annually, which is a bit lower than the most recent years (although data on this is weak). Government real investment expenditures are assumed to grow at 7 percent annually, which is faster than in recent years. This growth is assumed to be necessary in order to meet the targets of the MGDS. The government real wage rate is assumed to grow by 3 percent in 2007, 6 percent in 2008, and thereafter at 2 percent. The assumptions are meant to take into account recent changes in government pay scales.

The nominal interest rate on government domestic debt is expected to go down to 20 percent in 2007 and to further decline to 17 percent in 2008. From then on we assume a flat 14 percent rate, which will give a real interest rate between 9 and 11 percent over the period.

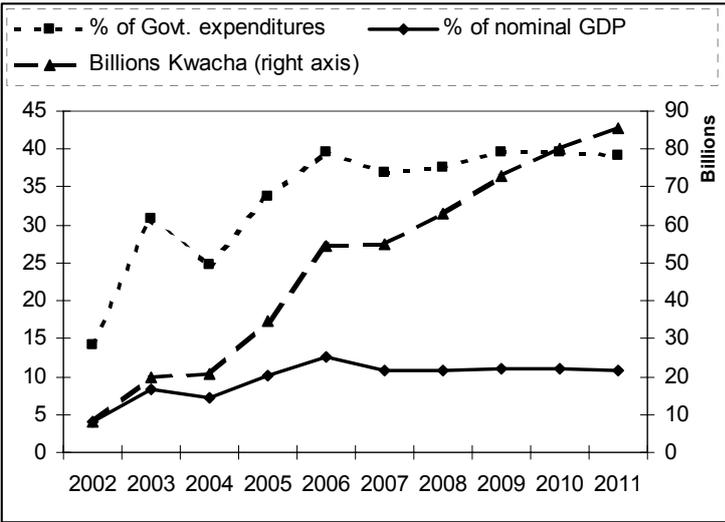
We now turn to the most important assumptions determining government revenues. Tax rates, comprising taxes on value added, excise duties, international trade, and household gross income, are

assumed constant in real terms at 2006 level. This means that tax rates are linked to prices so any change in volume will alter tax revenues.

For other taxes not calculated in the model, such as withholding tax, other direct taxes on households (fringe benefits and non resident tax), direct taxes on companies (assessments and provisional), the amounts of revenue is expected to grow by 8 percent on an annual basis. Government non-tax revenue is expected to grow by 7.5 percent. This is somewhat lower than the growth rate in nominal GDP but they are levelled out towards the end of the period.

Grants are expected to grow approximately in line with the assumptions in the recent Malawian government and IMF-staff estimates², although this is a difficult variable to predict. From Figure 8 we see that grants are expected to be rather constant at approximately 11 percent of nominal GDP, or 40 percent of total government expenditures.

Figure 8 Grants to Malawi (historic and assumed values)



For private sector investments in fixed capital we assume an annual growth at 5 percent over the period 2007 to 2011. This is roughly in line with growth in value added in the private sector, though a bit above in 2007-8 and somewhat below in 2010-11. This outcome is what we would get from introducing a typical accelerator effect into the model.

The import price is an important variable in our simulations considering the high import share in the Malawian economy. In 2006 imports constituted 57 percent of private sectors real GDP, and more

² International Monetary Fund (2006)

than double the share of exports. The import price inflation has decreased from more than 15 percent in 2004 to 4 percent in 2006, according to preliminary national accounts figures. In our scenario we assume the growth to continue at the 2006 rate at 4 percent. Bearing in mind the medium term goal to increase the number of businesses accessing the international markets with products³, this sharp decline in import prices will make it tougher to compete against imported products. Viewed against this background, among others, we assume real wages in the private sector to grow by 2 percent. We expect the labour force to grow at 3 percent over the period.

Demand for Malawian exports is dependent on the conditions of the world market. We expect that raw material producing countries will continue to improve their terms of trade for some years ahead as long as the growth in the world economy continues to be fairly high, although perhaps not as high as in recent years. In our scenario real world GDP growth is assumed to be constant at 4 percent annually.

4.4. Simulation results

With regard to fiscal policy the present forecast lead to an improvement in the overall budget balance in 2007 compared to 2006 although quite moderately so. The value of government consumption, comprising mainly the wage bill and purchases of goods and services, is expected to increase from 31 percent of total expenditures in 2006 to 35 percent in 2007⁴. This is increasing further to 37 percent in 2008, before it is expected to stabilize at around 38 percent for the rest of the period.

Table 1 Central government operations (percent of GDP)

	2005	2006	2007	2008	2009	2010	2011
Total revenue and grants	28.7	30.1	27.8	27.2	27.1	26.8	26.6
<i>Of which:</i> exclusive grants	18.5	17.4	16.9	16.4	16.0	15.8	15.8
Total expenditures	30.3	31.9	29.3	28.8	28.1	27.7	27.5
<i>Of which:</i>							
Wages and salaries	6.2	6.1	5.9	5.9	5.8	5.6	5.5
Interest payments	5.4	4.4	3.1	2.5	2.0	1.9	1.9
Other current expenditures	13.1	14.7	14.3	14.0	13.7	13.5	13.4

³ Ministry of Economic Planning and Development (2007)

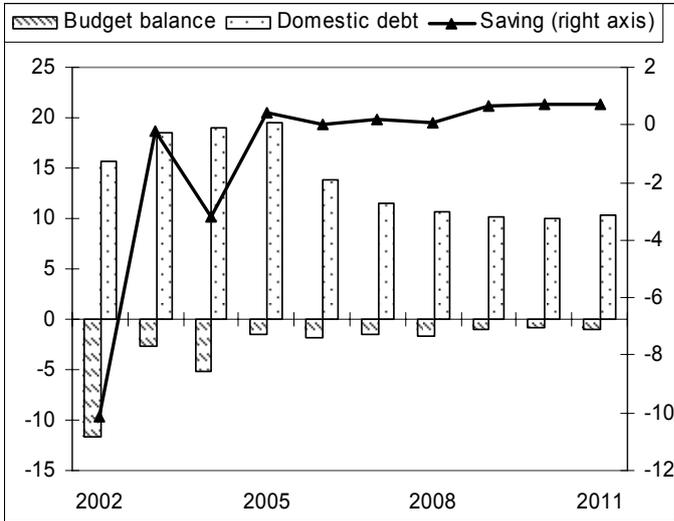
⁴ Government consumption also includes charges and fees, the part of Government production that is not Government consumption.

From Table 1 we see that total revenue and grants are decreasing slightly from 2007 to 2011 in percent of GDP. The estimated decrease is only 1.2 percentage points over the period. Revenues, on the other hand, is decreasing a bit more, 1.8 percentage points over the same period.

The increase in government revenues comes from taxes. We have assumed tax rates to be constant in real terms, which imply that, both indirect and direct tax revenues will grow roughly in line with nominal GDP and monetary private consumption. Direct tax revenues are linked to household incomes that grow due to a fairly high growth in formal employment and a small annual increase in real wages⁵.

Tax revenues grow somewhat less according to our forecasts than what is assumed in the numbers from the government of Malawi and the IMF. But, expenditures are also growing slower, leaving the overall budget balance including grants roughly in line with that document. With lower nominal interest rates (we assume real interest rates to be fairly constant at roughly 10 percent) interest payments will decline in nominal terms in the years ahead. From Figure 9 we see that the government budget balance is improving somewhat over the period, and that the domestic debt is going down from 11.6 percent of GDP to 10.3 percent.

Figure 9 Government budget balance, domestic debt and savings (percent of GDP)



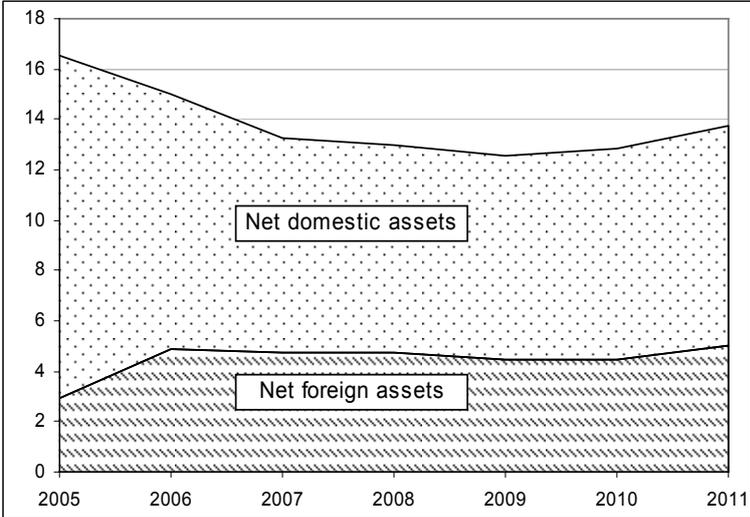
The moderate growth assumption for the volume of government purchases implies that the growth of value added in the government sector and in government consumption is quite low. Clearly, this is an important factor leading to a very moderate deficit on the budget balance. The improvement in the

⁵ Real wages are exogenous as nominal wage rates are linked to consumer prices in the current version of the model.

government budget balance from MK -9.3 to -6.3 billions from 2008 to 2009, combined with a more rapid growth in government investments leads to positive government savings.

Financing the deficit is assumed to take place by lending from the Reserve Bank and thus contributes to domestic credit and money supply. In Figure 10 we see the evolvement in domestic and foreign (net) assets in percent of GDP, together they make up broad money (M2). They both show a fairly stable development as share of GDP. We have assumed a 10 percent increase in the foreign exchange reserves, whilst for the other components of the net foreign assets of the monetary authorities we assume a zero percent growth rate.

Figure 10 Components of broad money (M2), net domestic and foreign assets (percent of GDP)



Growth in money supply (M2) and the value of GDP in current prices are not too divergent and the gradual decline in inflation is therefore, at least technically, consistent with monetary developments. The velocity of money lies within 7.5 and 7.9 over the period considered.

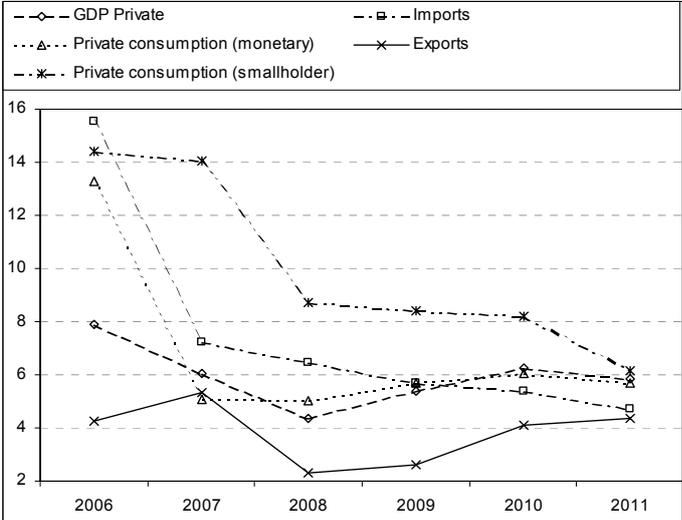
In Figure 11 we show growth rates for some macroeconomic variables. We see that GDP in the private sector is expected to have a strong growth for the next years. This is especially apparent when we compare with the period 2000 to 2006, when the average annualised growth rate was just below 3 percent, although heavily influenced by the setback in 2001. What stimulates GDP growth in particular is the rapid growth in private consumption. Smallholder’s consumption is expected to grow at 14 percent in 2007, and to continue to grow at above 8 percent in the period 2008-10, before it goes down to 6.2 percent in 2011. This gives an expected annualised percentage growth rate at almost 8 percent over the period. For simplicity smallholder’s production is directly linked to consumption. The Ministry of Agriculture and Food Security has released the second round agricultural production

estimates figures, indicative of another bumper harvest this season. This year’s maize production, estimated at 3.2 million MT, plus carryover stocks from last season’s bumper harvest, will result in yet another huge food surplus this season, and significantly improve household’s food security.

While promoting food security, the bumper harvest last season resulted in significant drops in maize prices and limited the marketing potential, much to the disadvantage of traders, including the governmental parastatal ADMARC, as well as farmers who had surplus for sale. This was made worse by the export ban, which further limited marketing opportunities for the surplus maize in the country. The government in February 2007 allowed controlled exports of up to 80,000 Metric Tonnes (MT) of maize. This was later followed by further relaxation of the restrictions when the government indicated that it had a tender to supply 400,000 MT of maize to Zimbabwe through the National Food Reserve Agency.

Also the monetary consumption shows a strong growth, expected to fluctuate around 5-6 percent annually over the period considered (cf. Figure 11). This growth comes from a swift increase in household’s disposable income, estimated to lie within 6.5 to 8.5 percent in the period.

Figure 11 Macroeconomic variables (percent growth)

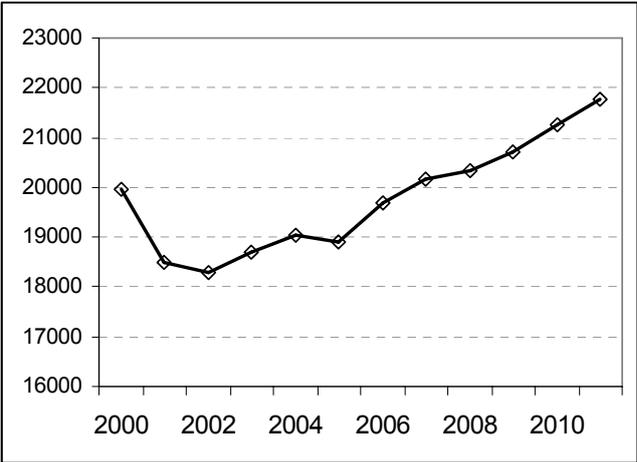


The increase in household’s income leads to a high growth in imports, although at a decreasing rate. We see from Figure 11 that private consumption grows a bit slower than imports at the beginning of the period, before it catches up with import in 2010-11.

The import share in total demand shows a diminishing growth rate in our scenario. Growing at just above two percent in 2007-08, it decreases into negative growth rate in 2011. The export volume

growth is not as strong as wanted, and clearly slower than that of imports. In the two first years it grows slower because export prices increase faster than import prices. This reduces the market share for Malawian export on the world market. In the subsequent years export grows roughly in line with the world market size, as relative prices draw near each other. In Figure 12 we show that real GDP per

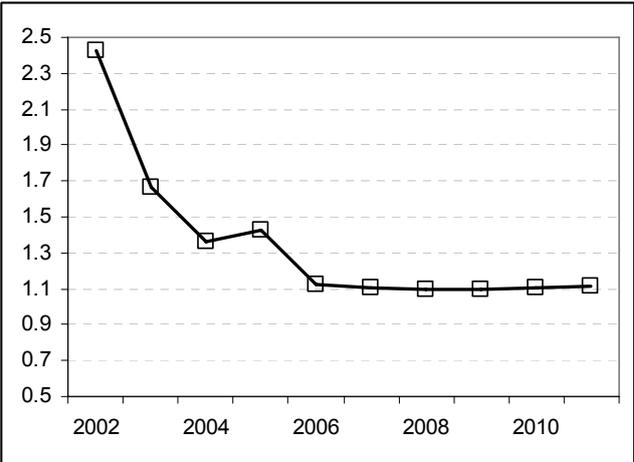
Figure 12 Real GDP per capita (Malawi Kwacha)



capita has increased over the past years in Malawi. The real GDP is expected to have an average annual growth rate at 4.2 percent over the period 2007-11, while the projected population growth is averaged at 3.3.

The dominance of the agricultural sector makes Malawi vulnerable to unfavourable weather conditions. To safeguard against a dry spell it is important that the government has sufficient

Figure 13 Foreign reserves in months of imports



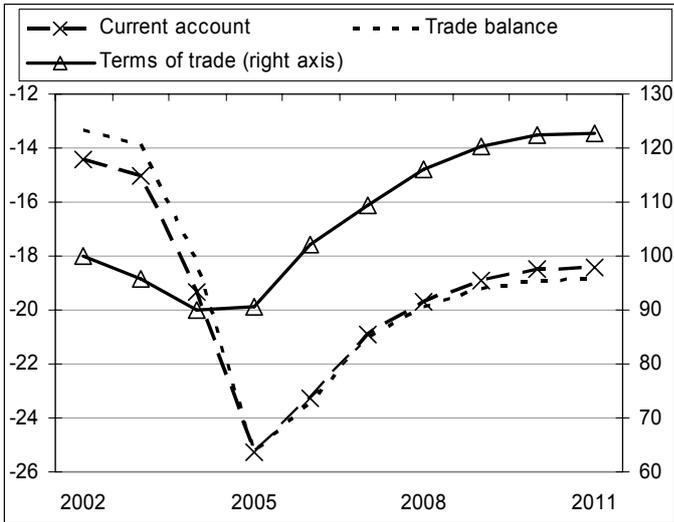
international reserves for food imports. In Figure 13 we show the foreign reserves measured in months of imports. We see that the foreign reserves, expected to grow at ten percent annually in our scenario,

is quite stable at around 1.1 months in terms of imports from 2006 to 2011. High priority should be given to increase the country's international reserves. The first move towards this could be to stabilize the exchange rate. Then the development of import-competing industries should be considered. It is, for instance, disappointing for an agricultural economy to import substantial amounts of food.

In Figure 14 we see results for the current account and the trade balance. The current account is improving somewhat, from a -20.9 percent of GDP in 2007 to -18.4 percent in 2011. The trade balance tracks this pattern, improving from -21.1 percent of GDP in 2007 to -18.8 in 2011. The reason why the deficit on the current account is not increasing is the improving terms of trade, in particular the low growth in import prices. In Figure 14 we see the terms of trade improving from 108 in 2007 to 123 at the end of the period. The terms of trade is levelled out in 2010-11 as the growth in export and import deflators are brought into line.

Our assumed growth in the world economy, and hence improvement in terms of trade for raw material producing countries, will lead to positive and moderate growth also in the volume of exports in the medium term. The other components of the current account are not of the same magnitude as the trade deficit. The net transfers to private sector from abroad are assumed to grow by 10 percent each year, from 6.2 billion MK in 2007 to 9.1 in 2011. Net factor services are rather stable at about -5.5 billion MK, apart from a 13 percent jump in 2007.

Figure 14 Current account and trade balance (percent of GDP). Terms of trade index (2002=100)

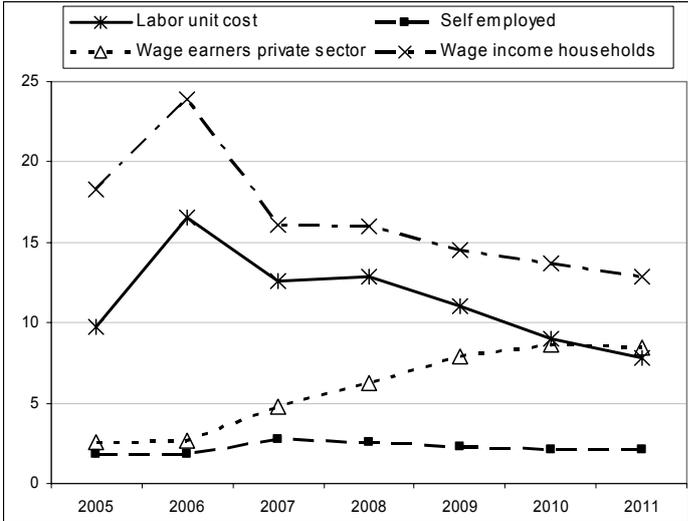


In Figure 15 we see some results for employment and labor costs. The number of wage earners in the private sector increases substantially, measuring a 4 percent growth annualised over the period. The wage rate for the private sector employees also grow over the period, but at a decelerating pace, from

11.2 percent in 2007 to 5.2 in 2011. Thus, the wage bill increases faster than private sector GDP, giving high growth in the labor unit costs.

The increase in the wage bill shows up in the wage income for the households, as can be seen from the figure. The increase in private sector employment implies lower growth in the number of self-employed, showing a reduced growth in Figure 15. Although this seems small, it adds up to a total reduction of more than 450,000 self-employed over the period.

Figure 15 Employment and labor costs



As we can see from Table 2, the government wage rate follows that of the private sector, except for the first two years of our simulation period (2007-8) where we have assumed 3 and 6 percent growth respectively in the real wage. This gives a steeper increase in the government wage rate in the beginning of the period. From the table we also see a strong growth in real disposable income for the household sector.

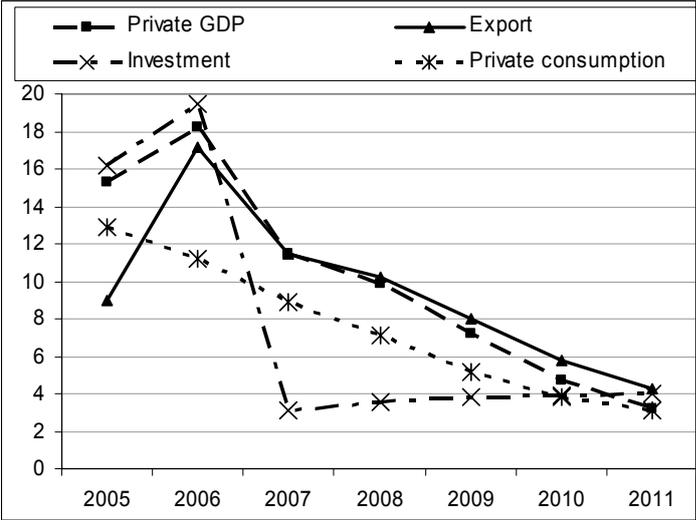
Table 2 Wage rates and real disposable incomes (percent growth)

	2005	2006	2007	2008	2009	2010	2011
Private wage rate	15.3	20.7	11.2	9.3	7.3	5.9	5.2
Government wage rate	12.0	18.0	12.2	13.5	7.3	5.9	5.2
Real disposable income	14.0	17.3	7.5	6.7	6.9	7.0	6.3

As already mentioned, Malawi enjoyed a considerable terms of trade gain in 2006 according to preliminary data. Export prices increased by 17 percent, while import prices increased at 4 percent. With such modest import price inflation consumer price inflation will gradually come down as well. In Figure 16 we show some of the deflators in our scenario. The consumer deflator is forecasted to

roughly 9 percent in 2007 falling to slightly above 7 in 2008. Thereafter it continues to depreciate before reading just above 3 percent in 2011. The deflators for private sector GDP and exports also decline but not at the same rate. Investment deflators are exogenous in the model, and are set to reflect that most of investments are imported, bearing in mind our assumption of a 4 percent growth in import prices.

Figure 16 Price deflators (percent growth)



5. Effects of reducing trade taxes with COMESA⁶ countries

5.1. Introduction

In this chapter we will raise an issue of current interest, and use the model to analyse the matter. By the end of 2008 it is suggested that Malawi should eliminate all trade taxes with its COMESA trading partners. This is a reciprocal trade agreement, so the COMESA countries should also eliminate taxes on their imports from Malawi. In the previous section we have presented our baseline scenario. This will be the basis for our policy analysis, in the way of serving as a reference when studying the simulated results. However, there are some challenges regarding the implementation of this policy scenario. These are highlighted in the next section together with our assumptions.

⁶ COMESA is short for Common Market of Eastern and Southern Africa.

5.2. Implementation of the policy shift

Although trade taxes are included in the model, they are related to total imports. The current model does not distinguish imports by goods and regions⁷, and is really a one-good model. This can be seen from the equation relating tax revenue from international trade (TIT) to the value of imports (VI) through a tax rate (TITRATE). The equation reads

$$\text{Eq. 1} \quad \text{TIT} = \text{TITRATE} * \text{VI}$$

Because the tax rate is levied on total value of imports, it should be interpreted as a value tax rate (as opposed to a volume tax rate). When trade taxes are eliminated, starting in 2009, parts of this revenue will be lost. Let us define S to be the share of imports from the COMESA area in total imports. We can then rewrite Eq. 1 as

$$\text{Eq. 2} \quad \text{TIT} = \text{TITRATE}(\text{S} * \text{VI} + (1-\text{S}) * \text{VI}) = (\text{S} * \text{TITRATE} + (1-\text{S}) * \text{TITRATE}) * \text{VI}$$

If we assume that the trade tax rates are equal between regions or trading partners, the elimination of trade taxes on imports from COMESA countries will lead to a reduction in TITRATE by S*TITRATE, the new tax rate being (1-S)*TITRATE. According to trade figures S can be estimated to be 66 percent. Thus TITRATE should be reduced to one third of its original value due to the elimination of trade taxes. In our baseline simulation we forecast TITRATE at 0.042, which is then reduced to 0.014 from 2009 and onwards in our policy analysis.

Market prices (PYP) are linked to factor prices (PYPF) of private sector GDP⁸ with the main indirect tax rate (TP) in the model. We have

$$\text{Eq. 3} \quad \text{PYP} = (1+\text{TP}) * \text{PYPF} / (1+\text{TP}.0)$$

where TP.0 is the value of TP in the base year. Since TITRATE is part of the data for TP we must ensure that the reduction in TITRATE affects TP, the main indirect tax rate, accordingly. From our baseline simulation, tax revenues from international trade (TIT) as share of total indirect taxes, is estimated to be 0.25 in 2008 (the rate is slightly higher in 2004 amounting to 0.3). Thus we estimate the reduction in TP, following from the reduction in TITRATE, to be 0.25 times the change in TITRATE. Hence, since TP is 0.070 in our baseline scenario, it is reduced to 0.063 in the policy shift scenario.

⁷ In the next version of the model an Input-Output table, separated into domestically produced and imported products, will be implemented. Then we will be able to assign changes in tax rates to relevant import and export products making the model much more suitable for these kind of analyses.

⁸ There are no indirect taxes on Government value added so, by assumption, value added at factor costs are equal to value added at market prices.

The trade reform will also affect the competitiveness for Malawian goods in markets of the COMESA member countries. However, only 20 percent of total Malawian exports go to these countries. So even if the effects in these countries were similar to those that we estimate for the Malawian economy, the benefits of the trade reform will be relatively small for Malawi. Notice that it is not obvious that export prices for Malawi change directly as a consequence of the trade reform (export prices are f.o.b. prices). Rather it is the c.i.f. price including import duties in COMESA countries that is reduced. In our model we use import prices to Malawi, of course excluding trade taxes in Malawi, as an indicator for competing prices on the world market. When implementing the policy shift, this price should not be changed. We should rather use the error term in the export volume equation to take into account the effect of more imports of Malawian goods into COMESA countries. If we believe trade taxes in these countries to be similar to those in Malawi, the reduction in the import price is similar to the change in TITRATE discussed above. Further, assuming an import price elasticity of say minus one, and, since 20 percent of the exports goes to COMESA countries, the exports from Malawi should be increased by 0.20 times the percentage change in the price including TITRATE, which is 0.028 percent. Thus the increase in export volume is then 0.0056 per cent. This is of course almost negligible.

When the policy shift is implemented in the model one has to consider to what extent the effects on the government budget balance should be mitigated by changes in other revenues or expenditures. In our policy scenario, some of the deficit that occurs due to the trade reform is countered by lower purchases of goods and services (which is part of government consumption). We assume this to grow, in real terms, at two percent per year instead of three as in the baseline scenario.

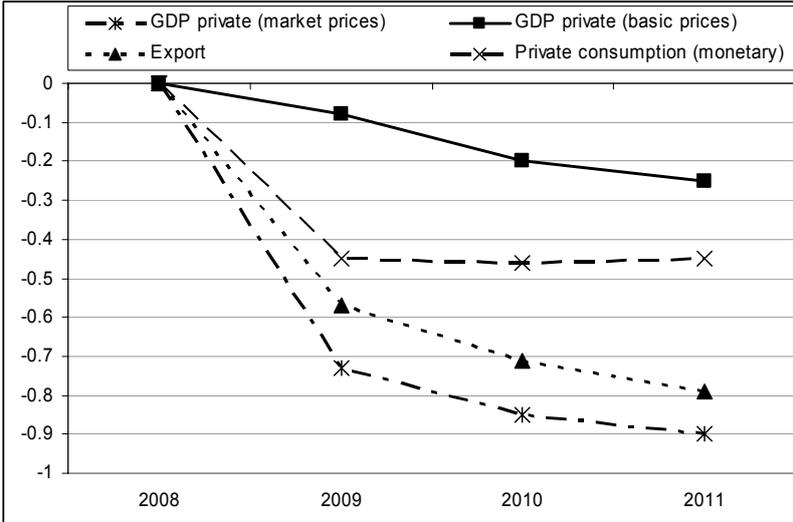
5.3. Results from reduced trade taxes

By implementing our policy shift as pointed out above, the macro model will show the effects of lower trade taxes on consumer prices and thereby all other indirect taxes that depend on nominal values in the model.

When the indirect tax rate decreases the domestic producer price (measured by the GDP deflator for private sector in market prices) goes down (see **Eq. 3**). This will in turn result in lower consumer deflators as well. Furthermore, this leads to lower nominal wages since real wages are exogenous and assumed constant, and any change in consumer prices is passed through to nominal wages. This will further reduce prices. So consumer prices drop by about half a percent while the GDP deflator drops by almost one percentage point. Lower import prices will improve the competitiveness for foreign goods on domestic markets. Thus the import share will increase. This increase will reduce GDP for a

given level of total domestic and foreign demand. Such a reduction in output will reduce tax revenues according to the model. Lower prices will however, also reduce some expenditures (wages to government employees, purchases of goods and services for current expenditures as well as the price on investment in the government sector to mention some categories). In Figure 17 we see the effects on some of the deflators from this policy shift.

Figure 17 Deflators: Effects from reduced trade taxes (percent deviation from baseline scenario)



For the real sector, as we see in Table 3, there are only minor changes. For the private sector GDP we see a small reduction of 0.3 percent compared to the baseline scenario. Government consumption is reduced by almost 3 percent relative to the baseline scenario due to the assumption of counteracting the increased budget deficit from the trade reform by reducing its purchase of goods and services.

Table 3 Macroeconomic variables (percent deviation from baseline scenario)

	2009	2010	2011
GDP Private	-0.13	-0.09	-0.29
Consumption (monetary)	0.29	0.19	-0.12
Consumption (government)	-0.95	-1.87	-2.77
Exports	0.38	0.31	0.22
Imports	0.63	0.27	0.02

Private consumption is mostly driven by real disposable income, which increases in 2009-10, but is expected to be lower in 2011, relative to the baseline scenario. This pattern is due to the nominal disposable income for households decreasing slower than the consumer deflator in the beginning, but this is reversed in 2011.

In Table 4 we show the effects on the government budget balance. Tax revenues are decreasing as expected. This amounts to slightly more than one percentage points of total GDP, and the bulk part is the direct effect from losses on taxes from international trade. Apart from the small reduction in government expenditures, the loss of tax revenues is reflected in the overall government balance. Also, one should note that the reduction in private consumption implies that further tax revenues is lost through lower revenues from value added tax and the domestic part of excise duties. As mentioned before, we assume the government to finance its deficit by credit from the monetary authorities. This is captured in the figures for net domestic assets, which records the accumulated domestic credit. Higher interest payments due to higher debt are included in the figures for the government budget balance.

Table 4 Government (billions of Kwacha deviation from baseline scenario)

	2009	2010	2011
Tax revenues	-7.5	-8.4	-9.4
Taxes on international trade	-7.6	-8.3	-9.1
Government expenditures	-0.6	-0.3	0.2
Government balance incl. grants	-6.9	-8.1	-9.6
Net domestic assets	6.9	15.0	24.6

The effects on trade are not substantial. From Table 5 we see that the reduction in exports and increase in imports leads to a current account balance deficit. The deficit manifests itself in the figures for net foreign assets. The value of exports declines although the volume increases, because of the effect from reduced export price.

Table 5 Trade (billions of Kwacha deviation from baseline scenario)

	2009	2010	2011
Exports	-0.3	-0.6	-1.0
Imports	1.7	0.8	0.1
Current account	-2.0	-1.5	-1.1
Net foreign assets	-2.0	-3.4	-4.5

6. Conclusions

With a strong GDP growth, expected to record an annualised rate of 4.1 percent over the period 2007 to 2011, the prospects for the Malawian economy in the medium term looks promising. The growth in production from smallholders is strong due to bumper harvests in both the 2006 and 2007 harvest

seasons. This significantly improves household's food security and stimulates private consumption, of which a large proportion is imported.

But, the dominance of the agricultural sector, contributing more than 30 percent to GDP, generating more than 90 percent of the export earnings, and engaging about 90 percent of the active labour force, makes Malawi vulnerable to adverse weather conditions. To be prepared for a dry spell it is important that the government has sufficient international reserves for food imports.

The growth in exports volume is not keeping the up with that of imports, but because of terms of trade gains the current account is somewhat improving.

As share of GDP total government revenues and grants decreases slightly from 2007 to 2011. In contrast revenues decreases a bit more. With lower nominal interest rates, interest payments will decline in nominal terms in the years ahead. The government budget balance is improving somewhat over the period, and the domestic debt is going down. The moderate growth assumption for the volume of government purchases implies that the growth of value added in the government sector and in government consumption is quite low. This is an important reason leading to a very moderate deficit on the budget balance. Despite of this prospect, Malawi will still be dependent upon significant and predictable donor budget support in the years ahead.

Financing the deficit is taking place by lending from the Reserve Bank. This contributes to domestic credit and money supply. The evolution in domestic and foreign (net) assets both shows a fairly stable development as share of GDP.

Malawi benefited from terms of trade gains in 2006 according to preliminary data. Export prices increased by 17 percent, while import prices increased at 4 percent. This modest import price inflation will gradually lower consumer price inflation.

The number of wage earners in the private sector increases substantially over the period. The wage rate for the private sector employees also grow over the period, but at a decelerating pace. This shows up in the wage income for the households. The increase in private sector employment implies lower growth in the number of self-employed, adding up to a total reduction of more than 450,000 self-employed over the period.

Malawi is also challenged by corruption, difficulty in obtaining expatriate employment permits, bureaucratic red tape, and poor and unstable infrastructure hindering economic development.

With a predictable donor inflow and a sound economic management to improve the fiscal discipline, it is possible to move the nation from poverty to more prosperity.

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Appendix 1. Detailed tables

In this appendix we present more details from our baseline scenario for the Malawian economy.

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Table 1. Macroeconomic figures (2004 - 2011)
(In millions of Malawi Kwacha)

	2004	2005	2006	2007	2008	2009	2010	2011
Total consumption	285,926	360,659	453,951	531,787	606,575	679,658	751,819	819,957
- Private consumption	256,153	326,251	411,715	480,148	544,463	609,137	673,990	735,454
- - Smallholders	66,627	67,922	89,505	111,150	129,363	147,498	165,675	181,383
- - Others	189,526	258,328	322,210	368,998	415,099	461,638	508,314	554,071
- Government consumption	29,773	34,407	42,235	51,639	62,111	70,521	77,829	84,502
Total investments	46,375	56,027	68,774	74,788	81,526	89,071	97,414	106,589
- Government	5,803	6,709	7,777	8,775	9,726	10,804	12,014	13,364
- Private	40,571	49,318	60,996	66,013	71,799	78,267	85,400	93,225
- Stock building	5,694	6,754	8,629	9,355	10,280	11,020	11,539	11,906
Exports	71,352	81,037	98,980	116,172	131,025	145,209	159,910	173,997
Imports	123,479	166,439	200,026	223,061	247,029	271,593	297,716	324,277
GDP	285,869	338,038	430,309	507,722	582,673	657,134	729,941	796,469
GDP at factor costs	259,334	306,225	392,931	469,108	537,022	602,910	667,648	728,359
- Value added in government	17,839	20,922	25,714	29,440	34,096	37,325	40,314	43,261
- Private sector total	241,494	285,303	367,216	439,290	504,219	570,178	634,994	694,107
- - Private sector monetary	174,515	217,032	274,344	319,901	361,601	404,451	447,185	488,412

Table 2. Macroeconomic figures (2004 - 2011)**(In millions of Malawi Kwacha)****Constant 2002 prices**

	2004	2005	2006	2007	2008	2009	2010	2011
Total consumption	216,759	241,730	272,087	290,782	307,517	326,508	347,399	367,042
- Private consumption	194,083	219,031	248,661	266,384	282,118	300,082	319,917	338,477
- - Smallholders	55,822	49,291	56,392	64,328	69,925	75,800	82,035	87,082
- - Others	138,261	169,740	192,269	202,055	212,193	224,281	237,882	251,395
- Government consumption	22,676	22,698	23,425	24,398	25,398	26,425	27,481	28,565
Total investments	40,814	42,709	44,075	46,381	48,809	51,366	54,059	56,895
- Government	4,817	5,040	5,086	5,442	5,823	6,230	6,667	7,133
- Private	35,996	37,668	38,989	40,939	42,986	45,135	47,392	49,761
- Stock building	4,485	4,607	4,949	4,949	4,949	4,949	4,949	4,949
Exports	60,694	63,264	65,954	69,458	71,076	72,935	75,916	79,229
Imports	94,488	117,814	136,112	145,948	155,414	164,296	173,172	181,367
GDP	227,467	233,388	251,262	265,931	277,246	291,770	309,459	327,057
GDP at factor costs	213,311	218,220	235,615	249,587	260,368	274,202	291,049	307,810
- Value added in government	12,041	12,232	12,639	12,892	13,150	13,413	13,681	13,955
- Private sector total	201,269	205,987	222,975	236,695	247,217	260,789	277,367	293,854
- - Private sector monetary	145,447	156,696	166,583	172,366	177,292	184,988	195,332	206,772

Table 3. Macroeconomic figures (2004 - 2011)**(Percent change from previous year)**

	2004	2005	2006	2007	2008	2009	2010	2011
Total consumption	6.2	11.5	12.5	6.8	5.7	6.1	6.3	5.6
- Private consumption	4.6	12.8	13.5	7.1	5.9	6.3	6.6	5.8
- - Smallholders	-1.4	-11.7	14.4	14.0	8.7	8.4	8.2	6.1
- - Others	7.3	22.7	13.2	5.0	5.0	5.6	6.0	5.6
- Government consumption	22.2	0.1	3.2	4.1	4.0	4.0	3.9	3.9
Total investments	27.0	4.6	3.2	5.2	5.2	5.2	5.2	5.2
- Government	-8.3	4.6	0.9	6.9	7.0	6.9	7.0	6.9
- Private	34.0	4.6	3.5	5.0	4.9	5.0	5.0	5.0
- Stock building	-29.8	2.7	7.4	0.0	0.0	0.0	0.0	0.0
Exports	4.1	4.2	4.2	5.3	2.3	2.6	4.0	4.3
Imports	11.4	24.6	15.5	7.2	6.4	5.7	5.4	4.7
GDP	5.2	2.6	7.6	5.8	4.2	5.2	6.0	5.6
GDP at factor costs	4.8	2.3	7.9	5.9	4.3	5.3	6.1	5.7
- Value added in government	3.9	1.5	3.3	2.0	2.0	2.0	2.0	1.9
- Private sector total	4.8	2.3	8.2	6.1	4.4	5.4	6.3	5.9
- - Private sector monetary	7.5	7.7	6.3	3.4	2.8	4.3	5.5	5.8

Table 4. GDP by activity (2004 - 2011)**(In millions of Malawi Kwacha)****Constant 2002 basic prices**

	2004	2005	2006	2007	2008	2009	2010	2011
Gross Domestic Product	213,311	218,220	235,615	249,587	260,368	274,202	291,049	307,810
Agriculture	75,241	68,802	77,037	86,197	92,739	99,826	107,537	114,053
- Smallscale	55,822	49,291	56,392	64,328	69,925	75,800	82,035	87,082
- Largescale	19,418	19,511	20,645	21,869	22,814	24,026	25,502	26,971
Mining and quarrying	2,736	4,163	3,238	3,430	3,578	3,768	4,000	4,230
Manufacturing	24,498	26,362	27,894	29,548	30,825	32,462	34,457	36,441
Electricity and water	4,058	4,413	4,657	4,934	5,147	5,420	5,753	6,085
Construction	9,027	10,170	11,474	12,154	12,679	13,353	14,173	14,989
Ownerships of dwellings	10,522	11,075	11,641	12,331	12,864	13,548	14,380	15,208
Services	87,226	93,231	99,671	105,085	109,325	114,698	121,189	127,654
- Distribution	36,137	40,810	43,904	46,507	48,516	51,094	54,233	57,356
- Transport and communication	13,273	14,575	15,505	16,424	17,134	18,044	19,153	20,256
- Financial and professional services	18,759	20,118	23,825	25,238	26,329	27,728	29,431	31,126
- Private social and community services	19,400	20,073	20,635	21,859	22,803	24,015	25,490	26,958
- Producers of government services	12,041	12,232	12,639	12,892	13,150	13,413	13,681	13,955
- Unallocable finance charges	-12,386	-14,578	-16,839	-17,838	-18,608	-19,597	-20,801	-21,999

Table 5. GDP by activity (2004 - 2011)**(Percent change from previous year)****Constant 2002 basic prices**

	2004	2005	2006	2007	2008	2009	2010	2011
Agriculture	2.7	-8.5	11.9	11.8	7.5	7.6	7.7	6.0
- Smallscale	-1.4	-11.6	14.4	14.0	8.7	8.4	8.2	6.1
- Largescale	16.9	0.4	5.8	5.9	4.3	5.3	6.1	5.7
Mining and quarrying	18.8	52.1	-22.2	5.9	4.3	5.3	6.1	5.7
Manufacturing	3.0	7.6	5.8	5.9	4.3	5.3	6.1	5.7
Electricity and water	13.4	8.7	5.5	5.9	4.3	5.3	6.1	5.7
Construction	2.9	12.6	12.8	5.9	4.3	5.3	6.1	5.7
Ownerships of dwellings	2.3	5.2	5.1	5.9	4.3	5.3	6.1	5.7
Services	7.0	6.8	6.9	5.4	4.0	4.9	5.6	5.3
- Distribution	11.3	12.9	7.5	5.9	4.3	5.3	6.1	5.7
- Transport and communication	2.2	9.8	6.3	5.9	4.3	5.3	6.1	5.7
- Financial and professional services	5.7	7.2	18.4	5.9	4.3	5.3	6.1	5.7
- Private social and community services	12.4	3.4	2.8	5.9	4.3	5.3	6.1	5.7
- Producers of government services	3.9	1.5	3.3	2.0	2.0	2.0	2.0	1.9
- Unallocable finance charges	18.2	17.6	15.5	5.9	4.3	5.3	6.1	5.7

Table 6. GDP by activity (2004 - 2011)**(Percentage share of GDP)****Constant 2002 basic prices**

	2004	2005	2006	2007	2008	2009	2010	2011
Agriculture	35.2	31.5	32.6	34.5	35.6	36.4	36.9	37.0
- Smallscale	26.1	22.5	23.9	25.7	26.8	27.6	28.1	28.2
- Largescale	9.1	8.9	8.7	8.7	8.7	8.7	8.7	8.7
Mining and quarrying	1.2	1.9	1.3	1.3	1.3	1.3	1.3	1.3
Manufacturing	11.4	12.0	11.8	11.8	11.8	11.8	11.8	11.8
Electricity and water	1.9	2.0	1.9	1.9	1.9	1.9	1.9	1.9
Construction	4.2	4.6	4.8	4.8	4.8	4.8	4.8	4.8
Ownerships of dwellings	4.9	5.0	4.9	4.9	4.9	4.9	4.9	4.9
Services	40.8	42.7	42.3	42.1	41.9	41.8	41.6	41.4
- Distribution	16.9	18.7	18.6	18.6	18.6	18.6	18.6	18.6
- Transport and communication	6.2	6.6	6.5	6.5	6.5	6.5	6.5	6.5
- Financial and professional services	8.7	9.2	10.1	10.1	10.1	10.1	10.1	10.1
- Private social and community services	9.0	9.1	8.7	8.7	8.7	8.7	8.7	8.7
- Producers of government services	5.6	5.6	5.3	5.1	5.0	4.8	4.7	4.5
- Unallocable finance charges	-5.8	-6.6	-7.1	-7.1	-7.1	-7.1	-7.1	-7.1

Table 7. Central government operations (2004 - 2011)**(In millions of Malawi Kwacha)**

	2004	2005	2006	2007	2008	2009	2010	2011
Total Revenue and grants	68,998	97,089	129,346	140,962	158,553	178,369	195,527	211,470
- Revenue	48,145	62,620	74,935	85,962	95,553	105,369	115,527	125,780
- - Tax revenue	42,472	54,414	68,236	78,760	87,811	97,046	106,580	116,162
- - - Direct taxes	18,088	23,531	28,783	32,603	36,439	40,354	44,337	48,337
- - - - Individuals	9,435	13,198	16,501	19,339	22,114	24,883	27,628	30,292
- - - - Company tax	5,102	6,509	7,995	8,635	9,325	10,071	10,877	11,747
- - - - Withholding tax	3,550	3,824	4,286	4,628	4,999	5,399	5,831	6,297
- - - Indirect taxes	19,100	24,824	32,442	36,555	40,734	44,990	49,406	53,830
- - - - VAT	13,331	17,286	23,224	26,226	29,262	32,349	35,538	38,722
- - - - Excise duties	5,768	7,538	9,217	10,329	11,472	12,640	13,868	15,107
- - - Taxes on international trade	6,099	7,600	8,340	9,301	10,300	11,325	12,414	13,522
- - - Other taxes	-816	-1,542	-1,330	300	336	376	421	472
- - Non-tax revenue	5,672	8,206	6,699	7,202	7,742	8,322	8,947	9,618
- Grants	20,853	34,469	54,410	55,000	63,000	73,000	80,000	85,690
Total expenditure	83,963	102,402	137,120	148,639	167,841	184,684	202,129	219,212
- Current expenditures	68,197	83,898	108,225	118,155	130,667	141,305	153,271	165,326
- - Wages and salaries	17,839	21,094	26,142	29,930	34,664	37,946	40,985	43,981
- - Interest payments	20,496	18,389	18,933	15,838	14,364	13,136	13,932	14,999
- - - Domestic	17,405	15,536	15,814	11,862	10,296	9,020	9,797	10,857
- - - Foreign	3,091	2,852	3,119	3,976	4,067	4,115	4,134	4,141
- - Other current expenditures	29,862	44,414	63,148	72,386	81,639	90,222	98,353	106,345
- - - Oth. purch. of goods and serv.	20,552	25,766	37,885	43,501	49,240	54,367	58,636	62,313
- - - Subsidies and transfers	9,117	15,582	22,669	26,291	29,805	33,261	37,123	41,437
- - - Expenditures for arrears	192	3,064	2,593	2,593	2,593	2,593	2,593	2,593
- Development expenditures	15,765	18,504	28,894	31,784	34,962	38,458	42,304	46,535
- - Domestic (Part II)	3,317	3,273	8,159	8,975	9,873	10,860	11,946	13,141
- - Foreign (Part I)	12,448	15,230	20,735	22,808	25,089	27,598	30,358	33,393
Overall balance	-14,965	-5,312	-7,773	-7,677	-9,288	-6,315	-6,602	-7,741
Government saving	-9,161	1,396	3	1,098	438	4,489	5,411	5,622

Memorandum items: (Percent of nominal GDP)

	2004	2005	2006	2007	2008	2009	2010	2011
Total Revenues including Grants	24.1	28.7	30.0	27.7	27.2	27.1	26.7	26.5
- Revenue	14.8	16.0	15.8	15.5	15.0	14.7	14.6	14.5
Total expenditure	29.3	30.2	31.8	29.2	28.8	28.1	27.6	27.5
Government saving	-3.2	0.4	0.0	0.2	0.0	0.6	0.7	0.7

Table 8. Balance of payments (2004 - 2011)**(In millions of Malawi Kwacha)**

	2004	2005	2006	2007	2008	2009	2010	2011
Export surplus	-52,127	-85,401	-101,046	-106,888	-116,003	-126,383	-137,806	-150,280
- Exports	71,352	81,037	98,980	116,172	131,025	145,209	159,910	173,997
- Imports	123,479	166,439	200,026	223,061	247,029	271,593	297,716	324,277
Factor services (net)	-4,992	-5,008	-4,847	-5,465	-5,528	-5,532	-5,515	-5,470
Private transfers (net)	1,888	4,924	5,657	6,223	6,845	7,530	8,283	9,111
Current account balance	-55,231	-85,485	-100,236	-106,131	-114,686	-124,385	-135,038	-146,639
Capital account balance	29,441	35,676	28,949	21,643	34,674	48,196	60,762	86,452
- Long-term capital balance	29,376	35,606	28,867	21,562	34,593	48,115	60,680	86,370
- Short-term capital balance	65	70	81	81	81	81	81	81
Debt relief	5,125	7,079	14,925	20,000	16,000	10,000	10,000	0
Overall balance after debt relief	-2,127	-2,336	-11,220	-3,094	-3,570	-1,392	-3,305	-7,394
Memorandum items:								
	2004	2005	2006	2007	2008	2009	2010	2011
Current account deficit (% of GDP)	-19.3	-25.2	-23.2	-20.9	-19.6	-18.9	-18.4	-18.4
Import unit price (% change)	15.5	8.1	4.0	4.0	4.0	3.9	3.9	4.0
Import of goods and services (% change)	11.4	24.6	15.5	7.2	6.4	5.7	5.4	4.7

Table 9. Prices and costs (2004 - 2011)**(Percent change from previous year)**

	2004	2005	2006	2007	2008	2009	2010	2011
GDP Deflator	14.9	15.2	18.2	11.7	9.7	6.6	4.3	3.1
Consumer price	19.0	11.0	10.1	8.9	7.1	5.2	3.8	3.1
Import price	15.5	8.1	4.0	4.0	4.0	3.9	3.9	4.0
Export price	8.5	8.9	17.1	11.4	10.2	8.0	5.7	4.2
Wage rate private sector	9.8	15.2	20.7	11.1	9.2	7.3	5.8	5.2
Labour unit cost private sector	4.7	9.7	16.5	12.5	12.8	10.9	8.9	7.8

Table 10. Monetary Survey (2004 - 2011)**(In millions of Malawi Kwacha)**

	2004	2005	2006	2007	2008	2009	2010	2011
Net foreign assets	7,593	9,929	21,149	24,243	27,814	29,207	32,512	39,906
- Monetary Authorities	2,919	6,947	15,542	17,414	19,473	21,737	24,228	26,968
- - International reserve assets	14,009	19,737	18,715	20,586	22,645	24,910	27,401	30,141
- - Foreign liabilities	10,076	9,317	2,757	2,757	2,757	2,757	2,757	2,757
- Commercial Banks	4,674	2,981	5,606	6,829	8,341	7,469	8,283	12,938
- - Foreign assets	6,373	4,813	8,239	9,462	10,974	10,102	10,916	15,571
- - Foreign liabilities	1,699	1,832	2,633	2,633	2,633	2,633	2,633	2,633
Net domestic assets	39,637	45,851	43,251	43,216	47,968	53,479	61,007	69,754
- Domestic credit	37,330	42,992	48,610	48,575	53,328	58,839	66,366	75,113
- - Credit to Government (net)	22,322	23,398	18,111	16,226	18,920	22,120	28,042	35,102
- - Credit to statutory bodies (net)	1,081	2,093	2,752	3,215	3,816	4,598	4,598	4,598
- - Credit to private sector	13,926	17,500	27,746	29,133	30,590	32,120	33,726	35,412
- Other assets (net)	2,307	2,859	-5,359	-5,359	-5,359	-5,359	-5,359	-5,359
Money and quasi-money	47,230	55,781	64,401	67,460	75,783	82,686	93,519	109,661

Table 11. Monetary Survey (2004 - 2011)**(Percent change from previous year)**

	2004	2005	2006	2007	2008	2009	2010	2011
Net foreign assets	38.9	30.7	112.9	14.6	14.7	5.0	11.3	22.7
- Monetary Authorities	100.6	138.0	123.7	12.0	11.8	11.6	11.4	11.3
- - International reserve assets	5.2	40.8	-5.1	10.0	9.9	9.9	10.0	9.9
- - Foreign liabilities	-9.1	-7.5	-70.4	0.0	0.0	0.0	0.0	0.0
- Commercial Banks	16.5	-36.2	88.0	21.8	22.1	-10.4	10.8	56.1
- - Foreign assets	13.5	-24.4	71.1	14.8	15.9	-7.9	8.0	42.6
- - Foreign liabilities	6.0	7.8	43.7	0.0	0.0	0.0	0.0	0.0
Net domestic assets	27.9	15.6	-5.6	-0.0	10.9	11.4	14.0	14.3
- Domestic credit	26.9	15.1	13.0	-0.0	9.7	10.3	12.7	13.1
- - Credit to Government (net)	19.4	4.8	-22.5	-10.4	16.6	16.9	26.7	25.1
- - Credit to statutory bodies (net)	19.3	93.5	31.4	16.8	18.7	20.4	0.0	0.0
- - Credit to private sector	41.9	25.6	58.5	5.0	5.0	5.0	5.0	5.0
- Other assets (net)	47.3	23.9	-287.4	0.0	0.0	0.0	0.0	0.0
Money and quasi-money	29.6	18.1	15.4	4.7	12.3	9.1	13.1	17.2
