

## **CHAPTER 8. MEDIUM TERM OUTLOOK**

### **8.1 OVERVIEW**

The global economic outlook has deteriorated markedly over the last year. Whereas the world economy had been growing above trend for the past five years, the IMF is projecting a significant slowdown in 2009, with the developed economies expected to enter a recession, and the developing economies, particularly China and India, expected to slow down significantly.

Growth prospects for the United States have deteriorated sharply in 2008 and are expected to further weaken in 2009 as the country's consumption, investment and industrial production contracts. The outlook for the Euro area has also deteriorated, with sluggish private consumption growth and a contraction in investment expected to weaken GDP growth in 2009. The outlook for Japan has also been revised down due to a broad-based deterioration in the country's economic confidence. China and India's growth prospects have also weakened in 2009.

This has significantly altered the outlook over the medium term. The most important impact for PNG is that the economies that are slowing down or entering recession are the major users of PNG's commodity exports. The drop in demand for these commodities, such as copper, oil and gold, has resulted in sharp price falls. Over the past four months, the prices of these commodities have fallen by more than half, resulting in a significant decline in export revenues.

This has reduced the Government's medium term revenue projections significantly, with no additional mineral revenue expected under the medium term commodity price projections, which are based on 10 year average prices. This will translate into a projected decline in Government expenditure, relative to the elevated levels over recent years, when windfall revenues have funded additional priority expenditures.

In spite of the global turmoil and falling commodity prices, growth prospects for PNG in 2009 remain relatively favorable, before slowing somewhat in the outyears. However, the bulk of the slowdown can be attributed to the declines in oil production, which will continue to decline as existing fields mature. The non-mineral sector is expected to continue to grow over the medium term, due largely to the relatively insulated nature of much of the sector to global conditions.

The deceleration in the global economy is expected to help dampen inflationary pressures in 2009, as weaker demand from advanced economies lowers the prices of most commodities including oil and some foods, particularly wheat and rice.

In PNG, annual inflation as measured by the consumer price index (CPI) is projected to be 6.1 per cent in 2009 down from 10.6 per cent in 2008. This is largely due to the reversal of international factors that were in part driving inflation and the strengthening of the exchange rate. This outlook does not reflect any easing of domestic inflationary pressures as the prices of basic goods and services within the domestic economy have continued to increase.

On the external front, the exchange rate will continue to be set by the market, with the Bank of PNG's relatively high level of foreign reserves more than sufficient to perform the role of appropriately managing short-term exchange rate volatility.

The current account is anticipated to move sharply into deficit in 2009, following large surpluses in recent years. This is due to the large declines in commodity prices translating through into sharply lower export values. At the same time, import values are expected to remain at relatively elevated levels, due to the impact of the Ramu Nickel project and continued strong domestic demand. Over the medium term, the current account deficit is expected to stabilize as the economy adjusts, however deficits are anticipated to continue.

Over the medium term, the Government will seek to: improve the country's infrastructure conditions; improve basic service delivery to the vast major of its people; strengthen the agriculture, forestry and fishing sectors; attract new investments in the mineral and energy sectors; and create an environment conducive for businesses and investments.

## **8.2 WORLD ECONOMIC OUTLOOK**

### **8.2.1 World Economic Growth**

Since the emergence of the sub-prime mortgage crisis in the United States in 2007, the global economy has deteriorated considerably. Not since the Great Depression in the 1930s have world financial markets experienced such turmoil and weakness – stock markets across the globe have fallen by more than 40 per cent since their peak, many financial institutions have collapsed and finance has been much harder to raise on world markets, as risk is being repriced.

A number of the world's largest banks and financial institutions, including Lehman Brothers, Bear Stearns, American International Group, Fannie Mae and Freddie Mac have either failed or been bailed out. The financial crisis has not been restricted to the United States. Financial institutions have also collapsed in the United Kingdom, Germany, France, Ireland, Belgium, Luxembourg, Iceland and the Netherlands.

The failure of these financial institutions, and the potential failure of a number of others, has created great uncertainty and fear across financial markets. Banks have been unwilling to lend to each other or other businesses, out of fear that the borrowers will fail and be unable to repay the debts. This has caused a credit crunch, resulting in a significant increase in risk premiums, increasing the cost of borrowing significantly.

The impact of the global financial crisis and credit crunch is drastically reducing growth prospects in the global economy. It seems likely that the United States will enter a recession this year, the Japanese economy has already entered recession, the European economy has slowed considerably, and there are early signs that the Chinese and Indian economies have beginning to slow.

The deterioration in the global economic situation is unfolding rapidly, making it particularly difficult to develop an understanding on how things will turn out. Less than one month after releasing its biannual World Economic Outlook, the IMF has had to release an updated Outlook, revising most of the projections down.

The IMF is now predicting a recession in the developed economies, with growth in 2009 contracting for the first time in the post war period. Growth in emerging and developing economies has been revised down to 5 per cent in 2009, the slowest growth since 2002, and a slowdown of similar magnitude to developed economies when considered relative to trend.

This is resulting in a significant fall in commodity prices. While this will affect growth prospects in commodity producing economies, combined with increasing levels of economic

slack, it will help contain inflation pressures. The reduction in inflationary pressures will increase the room available for policy makers to respond to the global slowdown – although as seen in the US and Japan, the available options, in the form of lower interest rates and options for fiscal stimulus, are limited.

Looking ahead, the economic outlook is particularly uncertain. Financial conditions continue to present serious downside risks. If firms and households continue to reduce debt levels, through cutting consumption and investment expenditure in order to repay debt and increase savings, this could prolong the slowdown and increase its intensity. The IMF also warns of the risk of substantial capital flow reversals and disorderly exchange rate depreciations for many emerging markets. In the current setting, the IMF considers that upside risks are limited.

### **8.2.2 Inflation**

Globally, there has also been a surge in inflation especially in the emerging and developing economies over the past few years, with an increase in the price of food and fuel and a more general tightening of capacity constraints.

The sharp weakening of the global economy is also expected to help dampen inflationary pressures in 2009. Weaker export demand from advanced economies has lowered the historically high commodity prices of oil, copper and gold. This, together with higher amounts of spare capacity in major economies will assist to reduce inflationary pressures.

In spite of the recent deceleration in the global growth in 2008, headline inflation has continued to rise around the world to the highest rate since 1990. The rise in inflation has been more marked in the emerging and developing economies, reaching 8.25 per cent.

## **8.3 GROSS DOMESTIC PRODUCT**

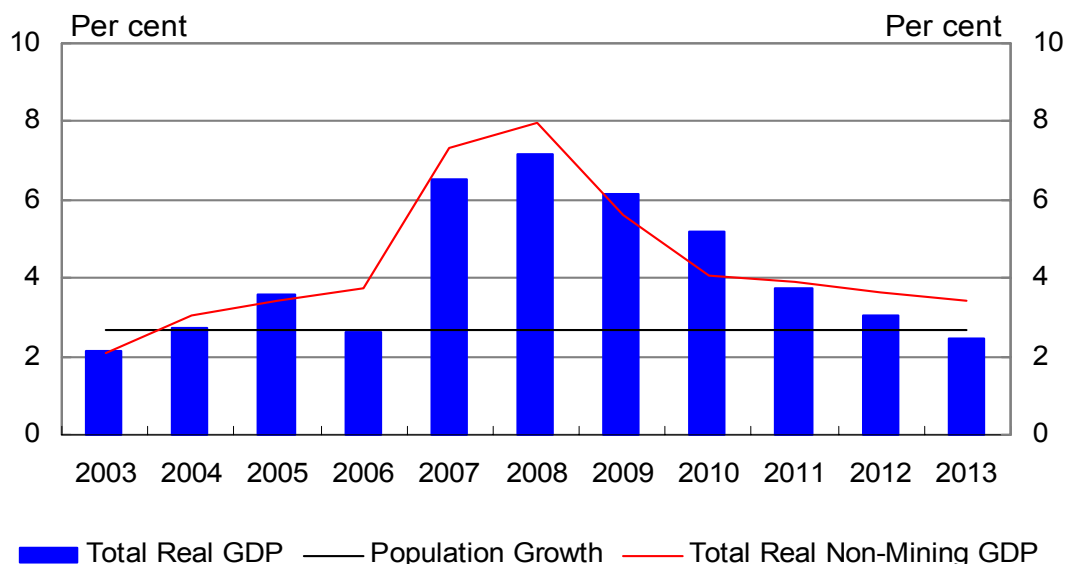
### **8.3.1 Overview**

Economic growth in PNG is expected to continue to be strong in 2009, with real GDP forecast to increase by 6.2 per cent, and non-mining growth is forecast to increase by 5.6 per cent. This represents a moderation from the very strong growth rates in 2007 and 2008, and is a reflection of the mobile phone sector continuing to expand, but at a slower pace; as well as the large scale expansion in the building and construction sector running up against capacity constraints, reducing the scope for further expansion in activity.

Generally, the solid economic outlook is expected to continue from a combination of continued political stability, microeconomic reforms, prudent macroeconomic policies, relatively low interest rates and high but manageable inflation levels.

Over the medium term, the economy is expected to continue to grow but not at the same rate as recorded over recent years. This is largely a reflection of the natural decline in oil production from existing oil fields, and an easing of growth in the mobile phone sector.

Most other sectors are anticipated to continue to return to around trend growth rates over the projection period, with the exception of building and construction. Above trend growth in construction is expected to continue over the next few years, in line with increased Government expenditure on infrastructure projects, sourced from funds accumulated in trust accounts during the commodity boom.

**Figure 15: Real Economic Growth 2003 – 2013**

Source: Department of Treasury

In order to assist continued private sector expansion, the Government needs to pursue structural reforms aimed at sustaining and improving economic growth prospects. Such microeconomic reform in the telecommunication industry has led to large expansion in the mobile phone industry, which has contributed to broader and improved services, increased employment, increased investment in infrastructure, and caused a significant reduction in prices. The experience of this sector provides a guide to the potential benefits of reforms in other sectors.

One major factor that has the potential to change the overall picture of the economy over the longer term are the massive Liquefied Natural gas (LNG) projects that are being considered. The project most likely to proceed is the Exxon Mobil led LNG project, drawing gas reserves from the Hides, Angore, Juha, Gobe, Moran and Kutubu fields in the PNG highlands, which will then be piped down to a liquefaction plant near Port Moresby. A decision will be made towards the end of 2009 following the completion of the Front End Engineering and Design (FEED) stage), about whether the project will go forward. Given this uncertainty, the project has not been included in the medium term projections.

Treasury analysis estimates that it will have a substantial impact on gross domestic product once production begins, in late 2013 or early 2014, and a smaller impact during the construction phase. This analysis is presented in Section 8.4.

### 8.3.2 Agriculture, Forestry and Fisheries

The Agriculture, Forestry and Fisheries sector is projected to grow strongly at 4 per cent in real terms in 2009. Over the medium term, the sector is expected to continue to grow, driven by expansion in the palm oil, copra oil, cocoa and coffee industries.

The Forestry sector is projected to grow by 2.4 per cent in 2009, reflecting increased production from impact projects. However, over the medium term, falling production from

larger existing logging projects is expected to outweigh the increased production coming from the new, smaller scale impact projects, resulting in a trend decline in production.

The Fisheries sector is projected to continue to grow at a rate of 3.5 per cent in 2009. Solid growth is anticipated to continue over the medium term, in line with increased investments in local wharves and jetties.

### **8.3.3 Mining and Petroleum**

The mining and quarrying sector is projected to grow very strongly at 17.5 per cent in 2009, driven by a ramp up of production from the major existing mines, supported by the expected commencement of production from the Hidden Valley gold mine during 2009.

Gold production is expected to increase very strongly in 2009 with the major mines of Lihir and Porgera ramping up production combined with normal production from the Ok Tedi mine, reflecting the major expansion plans following the large capital expenditures in previous years. The robust growth is expected to be further supported by the commencement of the Hidden Valley gold mine combined with normal production from other smaller mines.

Copper production from Ok Tedi is also forecast to be higher in 2009, reflecting production returning to normal after lower production in 2007 and 2008, due to mining of lower ore and temporary problems with crushers. Ok Tedi is anticipated to continue to produce copper and gold at around current levels up to and including 2013, before closing in 2014 (outside of the projection period). There are a number of options for extending the mine life being considered at present, although these are at early stages of consideration, and are highly uncertain.

In the medium term, the mining and quarrying sector is expected to continue to grow strongly, reflecting the commencement of production for Ramu Nickel in early 2010. However, growth is expected to moderate at the end of the forecast period as the major mines mature.

Ramu Nickel is anticipated to begin nickel and cobalt production by 2010, ramping up to full capacity in 2011, with production expected to remain steady thereafter.

The Lihir gold mine is anticipated to continue to expand production up until 2011, when production is expected to hold steady at high levels. There is potential for further increases beyond this, in line with the million ounce upgrade announced by Lihir Gold.

Porgera Joint Venture is anticipated to continue to ramp up gold production, with production expected to peak around 2010 and 2011, before declining, as the mine approaches the end of its mine life around 2020.

The petroleum sector is projected to decline by 7.3 per cent in 2009, as production from existing fields continue to decline as they mature. Over the medium term, oil production is expected to continue declining, reflecting the depletion of oil reserves from existing fields. Some of the fields like Gobe are expected to cease operation before the end of the forecast period and by 2015 the oil reserve is forecast to be completely depleted.

The LNG projects that are currently being considered have the potential to increase production in the oil and gas sector substantially over the medium term. Production estimates from the Exxon Mobil led LNG project suggest sustained annual production levels

in the range of 60 million barrels of oil equivalent over the 20 year peak production phase of the project.

This compares to the current production of 15 million barrels from existing projects, and is broadly similar to the initial rate of production from the Kutubu field when production first began in the early 1990s. However, LNG production is not expected to begin until 2013 at the earliest.

In the medium term, commodity prices are assumed to return to 10 year averages of US\$3540 per tonne for copper, US\$46 per barrel for oil and US\$445 per ounce for gold.

#### **8.4 The Potential Economic Impact of the LNG Project on the PNG Economy**

The proposed LNG project, undertaken by an Exxon Mobil led joint venture, is anticipated to be the largest project undertaken in PNG to date. The project will involve drawing gas from the Hides, Angore, Juha, Gobe, Moran and Kutubu fields in the Southern Highlands which will then be piped down to a liquefaction plant near Port Moresby, before being exported as LNG. The project will also produce relatively small quantities Liquefied Petroleum Gas (LPG) and Condensate, a form of oil.

Given that the project is yet to be sanctioned to proceed, the economic impact on PNG has not yet been factored into the baseline GDP forecasts. The following Treasury analysis has been prepared in order to provide some guidance about the potential economic impact on the PNG economy if the project does proceed, and draws on assumptions prepared by ACIL Tasman.<sup>2</sup>

The early estimates of the construction cost of the project were approximately US\$10 billion, or K26 billion over the life of the project, with an initial cost of US\$8.3 billion. Approximately US\$5.5 billion of the total construction cost is assumed to be used for equipment with the remaining US\$4.5 billion going towards labour costs (Figure 16).

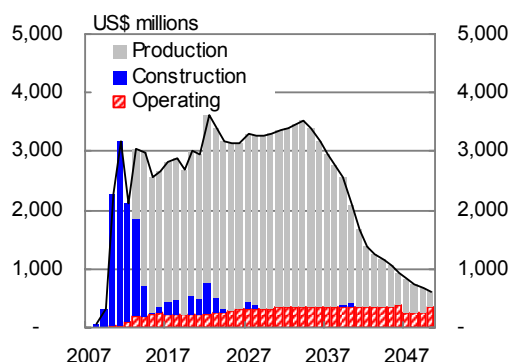
Since the early estimates were assembled, cost estimates have increased further, although cost estimates will be clearer when the FEED stage is completed in late 2009. At the end of the FEED stage, the investment partners will make a decision about whether the project proceeds.

The LNG project is expected to commence production in late 2013 or early 2014, ramping up to a maximum capacity of 6.4 million tonnes of LNG per annum (mtpa). This translates into approximately 54 million barrels of oil equivalent (mboe), a significant increase over the current level of oil production from existing fields of around 15 million barrels per year. Combined with the production of condensate and LPG, the Project is expected to produce around 60 mboe during the peak production period.

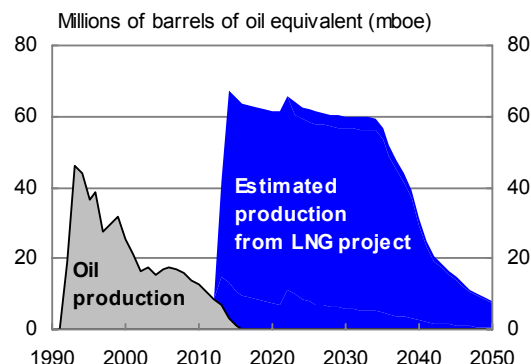
To provide some context, the Kutubu oil field produced around 45 million barrels of oil when it first came on stream in 1993 and 1994 (Figure 17). However, oil production from Kutubu declined rapidly as the field matured and output halved within 6 years. In contrast, the LNG project is expected to sustain production at around the 60 million boe level over the first 20 years, before tailing off as the project matures.

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<sup>2</sup> ACIL Tasman (2008), PNG LNG Economic Impact Study

**Figure 16: Total Direct Activity from Different Stages of the LNG Project**

Source: Department of Treasury

**Figure 17: Oil and gas production in PNG**

Once the project enters into the production phase, it is anticipated that operating expenditure will average around US\$260 million per annum over the life of the project. Of this, approximately US\$40 million will go towards labour costs, and the remaining US\$210 million towards non-labour costs.

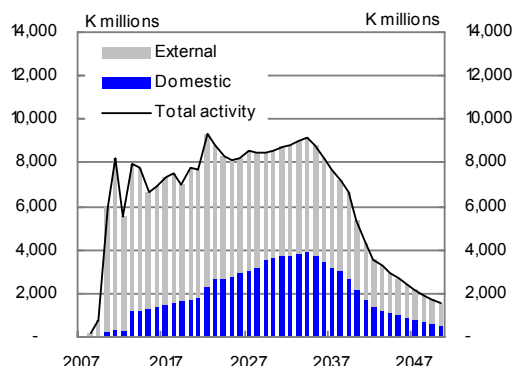
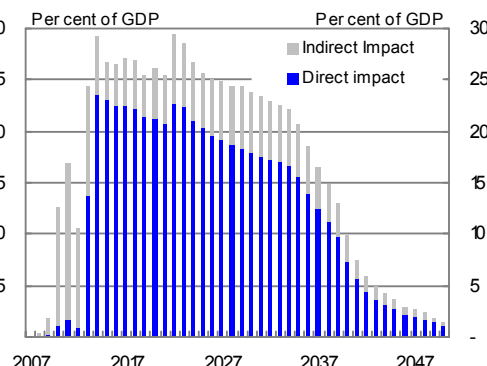
### The direct impact of the LNG Project on the PNG economy

While the LNG project will be the largest and most expensive investment in PNG to date, the extent of the impact on Gross Domestic Product (GDP) depends on how much of the economic activity actually occurs in PNG. Because much of the project construction will take place offshore, this part of the project will not add significantly to the size of the domestic economy (Figure 18).

The construction phase of the project covers field development, pipeline and LNG liquefaction plant, storage and load out. In this phase, it is assumed that all of the capital expenditure occurs offshore, and 90 per cent of the labour costs will be for expatriates, with 10 per cent for domestic labour. While the overall construction cost of the project will see direct activity of US\$10 billion, only about 5 per cent, or around US\$500 million can be expected to directly affect the PNG economy over the construction period.

Similarly, much of the annual operating expenditure will be sourced from offshore, with all of the non-labour costs imported, and an average of around 15 per cent of the labour costs relating to expatriate labour. The domestic share of economic activity relating to operations and maintenance is estimated at around 20 per cent, translating to around US\$40 million per year.

In all, the direct economic impact on GDP in PNG is expected to be relatively small during the construction phase, averaging around K180 million annually, or around 0.8 per cent of GDP. This is because most of the expenditure will take place offshore, or will be paid to expatriate labour, who are assumed to spend only 10 per cent of their income within PNG.

**Figure 18: Direct Economic Activity – Domestic vs External****Figure 19: Direct and Indirect Impact on GDP**

Source: Department of Treasury

The construction workforce is expected to peak at around 7,500 full time jobs in 2010, including direct employees, contractors, administrative and support personnel. PNG nationals are expected to make up 20 per cent (or 1,500 at peak employment) of the workforce during the initial construction period. During later construction phases, a higher proportion of the workforce is expected to be made up of PNG nationals (around 35 to 40 per cent), while during the operational phase, local employment is expected to make up between 75 and 90 per cent of the 450 to 500 positions.

The major economic impact from the LNG project will be felt once production commences in 2013 or 2014. The project is expected to produce around 61 mboe over the peak phase of the project (lasting 20 years), and an average of 46 mboe over the life of the project. Assuming oil prices of US\$65 per barrel (in real terms) throughout the life of the project, average annual export revenues are estimated at around US\$3 billion during peak production phase, and US\$2.4 billion over life of the project. This will provide a very large boost to GDP.

Once production begins, the direct impact on GDP will be very large, as all of the value added from the project is recorded as taking place in PNG. Over the length of the project, annual gross value added is estimated to average at around K5 billion. Over the peak production phase, this represents an additional 15 to 20 per cent of GDP per year, although the relative impact is expected to decline over time as the economy increases in size and as production declines towards the end of the project's life.

However, when estimating the economic impact of major investment projects in PNG, it is important to draw the distinction between production and income. This is because most of the gross operating surplus will be repatriated offshore, in the form of dividends or interest repayments on debt. These income outflows will not have any major economic impact within PNG.

While the impact of the project on GDP will be substantial, the impact of Gross National Income (GNI), which is equal to GDP plus income inflows from overseas less income outflows offshore, will be significantly less.

Once the income outflows are accounted for, the direct economic impact of the LNG project on the domestic economy is estimated to average around K2 billion per year over the life of the project (Chart 19). This will include tax payments, which make up the bulk of the impact,



dividend payments to the State, royalty and Development levy payments to landowners and Provinces, as well as income earned by local employees and contractors.

Over the first decade of production, this impact will be depressed due to allowable capital expenditure write downs (which will reduce company tax receipts) and elevated interest expense (which will reduce both tax and dividend flows). Once full company tax and dividend flows begin to be received, the direct impact is expected to increase, to around K3½ billion per year, before declining in line with lower production levels towards the end of the project's life.

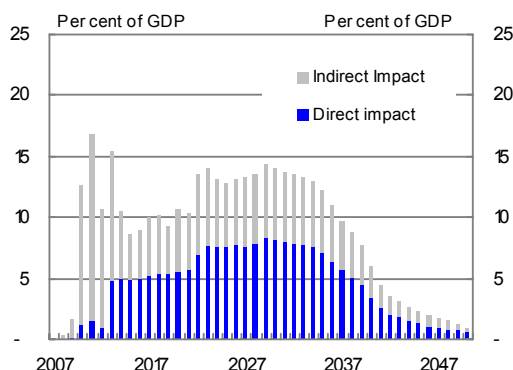
### The Indirect Impact on the PNG Economy

To estimate the indirect impact of the project on economic activity in PNG, through higher government expenditure, domestic expenditure by expatriate employees and increased business and consumption activity, the same methodology as ACIL Tasman has been used. Applying a multiplier of 0.7 to the direct impact on GNI provides an estimate of around K1 to 2 billion annually of additional activity over the life of the project. In addition, during the construction period, when there are large numbers of expatriate employees working in PNG, their local expenditure (assumed at 10 per cent of their incomes) is anticipated to add indirect activity – in the range of K2 to 3 billion during peak construction.

These indirect impacts are likely to come from a number of sources, including increased business activity from local companies that supply goods and services to the mining project and its employees, increased activity relating to higher Government expenditures, as well as increased domestic activity from unrelated activities, such as agriculture, that become viable due to potential improvements to infrastructure.

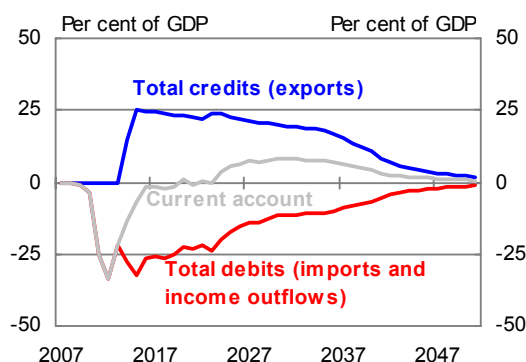
The total economic impact of the LNG project on the PNG economy combines the direct and indirect impacts. The total impact on GDP is estimated to average around K9 billion over the peak production phase of the project, and average around K7 billion per annum over the life of the project. This represents around a 25 to 30 per cent increase in GDP during the peak production phase, and around 15 to 20 per cent increase in GDP over the life of the project (Figure 19). The total impact of the project on GNI, which provides a more representative picture of the economic impact of the project, once overseas income flows are removed, is around K3½ billion per annum, or 9 per cent of GNI (Figure 20).

**Figure 20: Total Direct and Indirect Impact on GNI**



Source: Department of Treasury

**Figure 21: Impact on the Current Account Balance**



These estimates are broadly in line with ACIL Tasman estimates which were developed using the same approach, using information provided by Exxon Mobil about construction and operation expenditures, production revenues and domestic and expatriate employment to estimate the direct and indirect economic impact of the project on the PNG economy.

On the other hand, these estimates are significantly different from the more publicised ACIL Tasman estimate of the impact of the project doubling real GDP in PNG. This estimate was derived through running a shock through a CGE model. While this approach is useful for estimating the impact of the project on various industry sectors, as ACIL Tasman made clear in their analysis, it should not be interpreted as a forecast or an accurate estimate of the size of economic impacts.

### **The impact on the Balance of Payments**

The LNG project is also anticipated to have an extremely large impact on PNG's Balance of Payments. During the initial construction phase, large amounts of imports can be expected to result in exceptionally large current account deficits. Once construction is completed, and production begins, the increase in exports are expected to move the current account into surplus, although this will be offset by increased income outflows, as interest and dividend payments flow offshore.

The majority of construction activity is anticipated to be imported directly from overseas, or built and assembled within PNG by foreign residents on short term visits into the country. The construction materials, worth approximately K17 billion, will be recorded as imports of capital goods, while payments to expatriate employees temporarily residing in PNG, worth approximately K13 billion over the construction phase, will be recorded as service imports. These imports will result in a large current account deficit.

This construction activity will be financed by a mixture of Foreign Direct Investment and debt. This will be recorded as inflows in the capital and financial accounts, resulting in a capital account surplus which finances the current account deficit.

As the project moves into the production phase, exports of LNG, condensate and LPG are expected to be worth K6 to 8 billion annually. Partially offsetting this will be imports of goods and services of around K500 to 700 million per annum, resulting in a large trade surplus.

However, there will also be significant income outflows, in the form of interest expenses, dividend payments, recorded depreciation and reinvested income (if the profits are not paid out as dividends). This will result in a large income deficit, which will initially offset the trade surplus coming from LNG exports, before declining once taxable depreciation write offs and elevated interest expense (which are recorded as income outflows) end approximately 10 years after production begins.

The net result is a large current account deficit during the construction phase, current account balance during the period that financing and depreciation costs are elevated, followed by large current account surpluses once export earnings are greater than foreign income outflows (Figure 21).

If the LNG project proceeds, it can be expected to have a large and enduring benefit on the PNG economy.

## 8.5 PRICES

Annual inflation as measured by the consumer price index (CPI) is projected to be 6.1 per cent in 2009, down from the expected 2008 outcome of 10.6 per cent. This moderation in inflation is due to the reversal of international inflationary pressures and the sharp appreciation of the Kina.

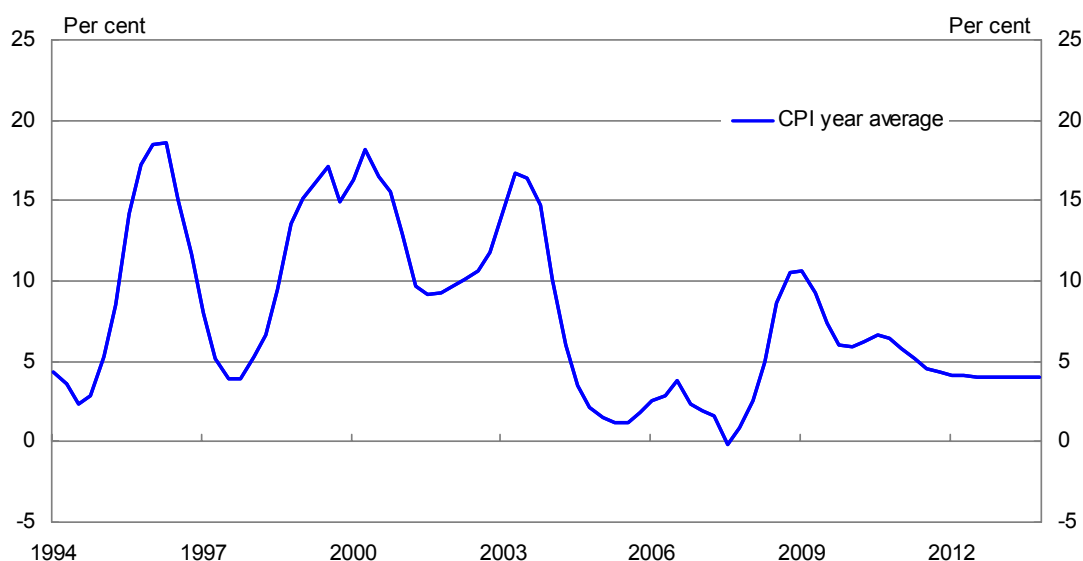
This outlook does not reflect the easing of domestic inflationary pressures, as many of the factors, including strong domestic growth, increased Government expenditure, relatively loose monetary conditions, increasing wage pressures and increasing evidence of capacity constraints have continued to build.

The terms of trade shock, which has imparted significant external stimulus into the economy, has reversed recently. However, by saving the windfall revenue in trust and repaying debt, the Government has shielded the economy from the full brunt of the impact of the commodity price boom, by saving part of the windfall revenue in trust. This means that the impact will continue to be felt into the future as the Government gradually spends the trust money. The Government will need to be careful to limit the drawdowns to a rate that the domestic economy can readily absorb, without igniting further inflationary pressure.

Over the medium term, annual average inflation is expected to return to the 3 to 4 per cent range, on the assumption of continue prudent operation of fiscal and monetary policies, and that the current episode of high inflation is not built into expectations.

The way in which the Government manages the trust funds represents one of the major risks to the inflation over the medium term. Other risks include sharp movements in the exchange rate, and the potential for a break out in wage pressures, which could risk a wage price spiral. The outcome of the Minimum Wages Board will also be an important factor determining wages, as will the outcome of future public service pay negotiations.

**Figure 22: Inflation Outcome and projections (1995 – 2013)**



Source: Department of Treasury, NSO

## **8.6 EMPLOYMENT AND WAGES**

Employment levels have increased significantly over recent years, and are expected to continue to grow in 2009 in line with ongoing above-trend economic growth.

Sustainable strong employment growth is expected from the mineral sector, especially from the new mining projects. Employment growth in the non-mineral sectors is expected to come from building and construction, manufacturing, finance, real estate and business services, retail and agriculture, forestry and fisheries sectors, supported by strong non-mineral GDP growth.

Government spending is expected to further boost economic activity and employment growth in the medium term.

In 2009, the public sector wage agreements for 2007 to 2009 is expected to be fully implemented and the benefit of the remuneration structure and pay provide scope for better productivity and performance to be achieved.

A teachers' wage agreement for the period 2007 to 2010 was finalized in November 2008. The agreement provides for increases to teachers salaries as well as automation of progression under the Teachers' Performance Based Salary Scheme. The wage increases are affordable and should not add to inflationary pressure over the life of the agreement.

In 2008, the Government re-established the Minimum Wages Board (MWB). Hearings are still underway, however in making recommendations to Government, the MWB needs to be mindful of the economic impact of any increase in minimum wages, particularly any adverse effects on inflation, employment and PNG's international competitiveness.

## **8.7 BALANCE OF PAYMENTS**

After a number of years of large current account surpluses, caused by record high commodity prices, and correspondingly high export values, the balance of payments are expected to turn around dramatically in 2009 and beyond. This assessment does not include the impacts of the proposed LNG project, although project's implications on the Balance of Payments is discussed in Section 8.4.

The large falls in commodity prices are resulting in a significant reduction in export values. This will reduce the trade surplus substantially, and is likely to move the current account into a deficit position. Combined with this, high levels of imports are expected in 2009, due to continued strong domestic growth, and large capital imports associated with the Ramu Nickel project.

The net result is a large expected current account deficit of K1.6 billion, or 7.5 per cent of GDP in 2009. This is a very large swing from the expected current account surplus of K1.9 billion, or 8.7 per cent of GDP in 2008.

The large build up of foreign exchange reserves by the Bank of PNG is not expected to continue into the future, due to the expected decline in Mining and Petroleum Tax revenues. The bulk of the current account deficit is anticipated to be financed on the capital account side through continued foreign direct investment, both in mining projects, such as Ramu Nickel and non-mineral enterprises.

Over the medium term, it is anticipated that export values will gradually decline, due to a further projected fall in commodity prices, which are assumed to return to 10 year averages

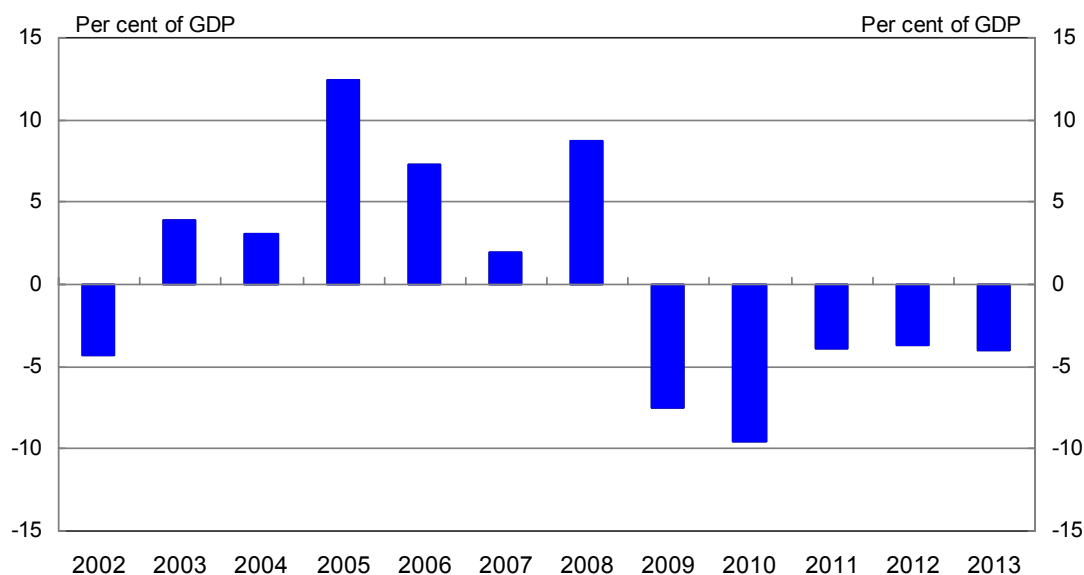
over the outyears, and continued reductions in oil exports as existing fields mature. This is expected to be partially offset by increased export volumes in other areas, including some agricultural commodities like palm and copra oil, as well as the commencement of nickel and cobalt exports from Ramu Nickel.

It is anticipated that general merchandise imports will fall, as the economy adjusts to lower export revenues in coming years, and as construction of the Ramu Nickel project reaches completion in 2010. Service imports are expected to remain relatively stable over the outyears.

The income deficit is anticipated to decline over the medium term, due largely to an expected fall in mineral dividends, as mining profits shrink in line with falling commodity prices. Transfer inflows are expected to fall in 2009, due to the appreciation of the Kina, and then remain relatively constant through the outyears.

Over the medium term, the current account is expected to remain in deficit, in line with lower commodity prices and export values, and elevated import levels. This indicates that adjustments will be required in order for the external accounts to move into a sustainable position.

**Figure 23: Current Account Balance (Per cent of GDP)**



Source: BPNG, 2005-2007, Treasury Dept 2008-2013

## 8.8 MONETARY POLICY

Monetary Policy formulation and implementation is the responsibility of the independent Bank of PNG.

Monetary conditions have been relatively loose in the last three years. The Bank of PNG has started to react to increased inflationary pressures in 2008, by increasing official interest rates and the Kina has appreciated. The Kina Facility Rate which is the benchmark interest rate has been increased by a total of 100 basis points in 2008, increasing from 6 per cent to 7 per cent. This is aimed at slowing the economy thus reducing inflationary pressures.

There has also been an appreciation of the Kina – gradually against the United States Dollar (USD) and more sharply against the Australian Dollar (AUD). This is expected to stem some of the inflationary pressures in the economy.

Despite this, key monetary aggregates are still growing at worrying high rates – money supply and credit are up over 30 and 40 per cent respectively in the year to September 2008. With higher inflation outcomes in 2008, real interest rates are also well into negative territory, proving very accommodative for further private sector investment. This will add to aggregate demand and build pressure on prices.

Monetary policy is the key tool in preventing further inflation, and it needs to be closely monitored and adjusted to reflect current and future circumstances. A coherent policy approach between monetary and fiscal policies is vital for macroeconomic stability to be maintained and the good economic outcomes recorded in recent times to be protected.

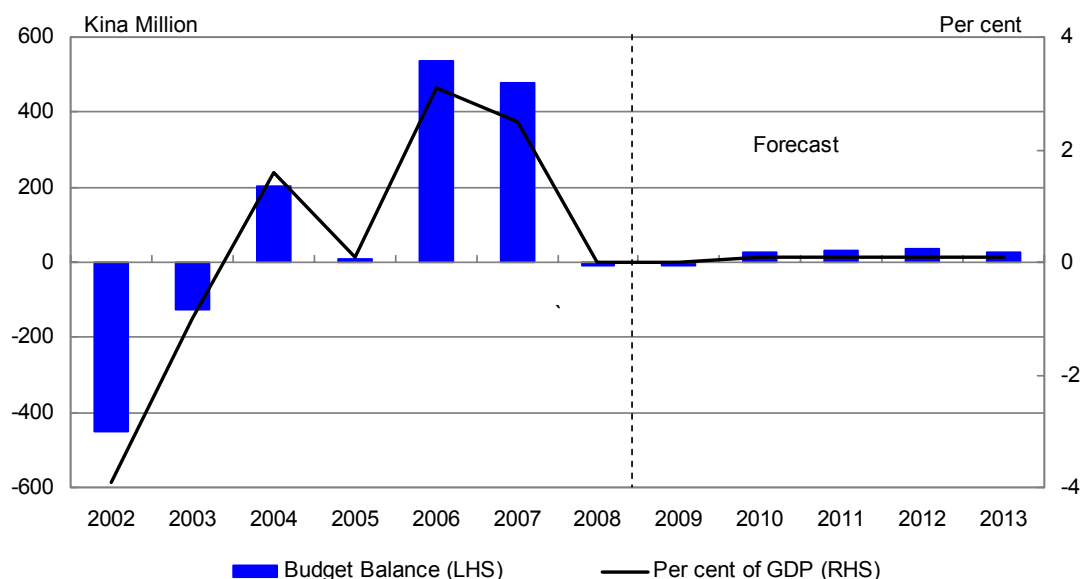
## 8.9 MEDIUM TERM FISCAL OUTLOOK

### 8.9.1 Overview

The medium term outlook has been prepared in the context of the new Medium Term Fiscal Strategy (MTFS) 2008-2012 which aligns recurrent and development expenditure with normal revenues (those revenues that could be expected in the absence of a commodity price boom) over the forecast period. This is based on conservative and achievable estimates for economic growth and revenues.

Over the medium term, prudent management of expenditure framed up against the new MTFS should hold government expenditure in a sustainable position, in spite of the large projected declines in revenue due to the sharp declines in commodity prices. This will allow for balanced budgets into the out years, as long as expenditure control is maintained.

**Figure 24: Medium Term Fiscal Outlook**

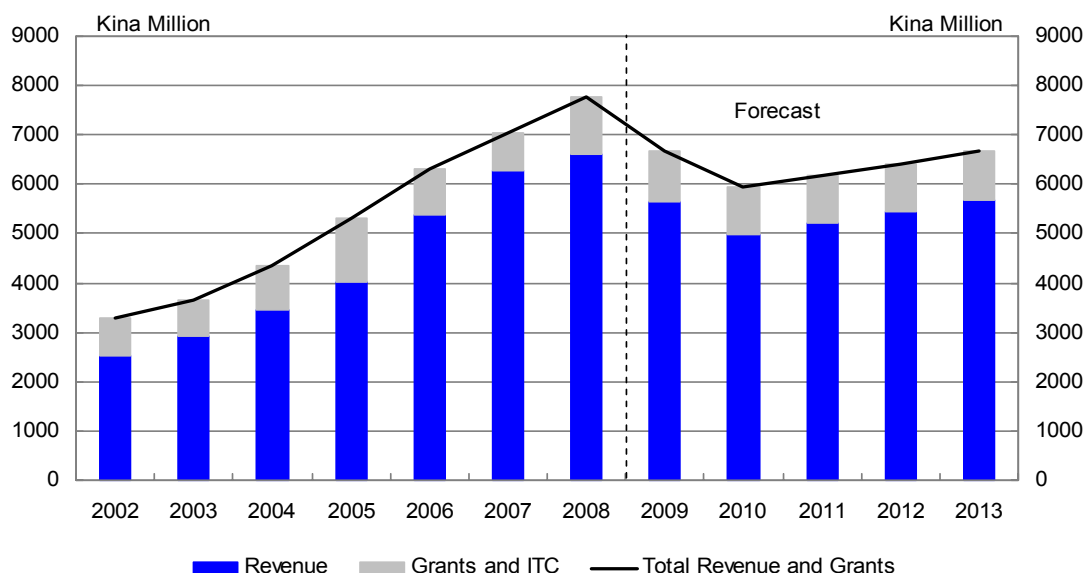


Source: Department of Treasury

## 8.9.2 Revenue and Grants

Total Revenue and Grants are expected to decline from their peak in 2008. This reflects the sharp fall in tax revenues in 2009, due to the large falls in commodity prices, as well as a fall in the Kina value of project grants, due to the appreciation of the exchange rate, particularly against the Australian Dollar. Following the fall in 2009, Total Revenue and Grants are anticipated to increase gradually, in line with the trend increase in economic activity.

**Figure 25: Total revenue and Grants 2002 – 2013 (Kina Millions)**



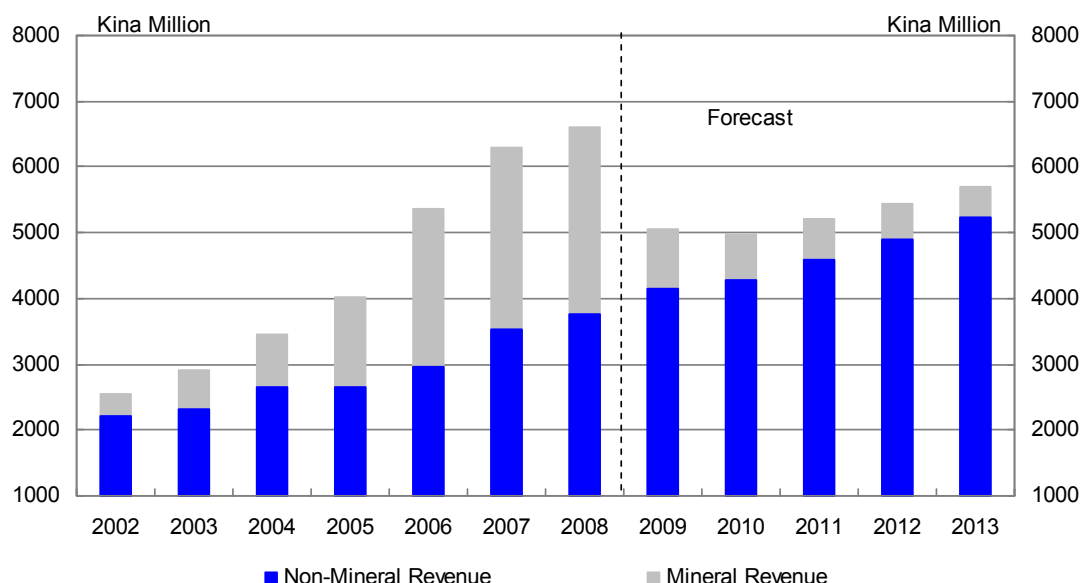
Source: Department of Treasury

### 8.9.2.1 Revenue

Total revenue is projected to decline from K6,595.5 million (30.6 per cent of GDP) in 2008 to K5,694.9 million (21.6 per cent of GDP) in 2013. This is due to a sharp drop in mineral revenue in 2009, in line with significantly lower commodity prices and mining and petroleum tax receipts. Over the medium term, mineral revenues are expected to decline more gradually, in line with the maturation of existing oil fields, which will result in lower oil production.

In 2009, revenues are expected to be elevated by a one-off K600 million injection of funds from the Gas Commercialisation Equity Financing trust account. This is a temporary measure, used to fund one-off expenditures, such as DSIP, in 2009. Revenues will fall sharply in 2010, as this measure is not anticipated to be replicated.

The decline in mineral revenues in the out years is expected to be offset by increases in non-mineral revenues as non-mining activity continues to grow, generating increased employment and profits and providing for increased income, company and activity based tax collections.

**Figure 26: Mineral and Non-Mineral Revenue**

Source: Department of Treasury

### 8.9.2.2 Tax Revenue

Tax revenue is projected to fall from K6,116.2 million in 2008 to K5,415.5 million in 2013. Mining and Petroleum Taxes – the biggest component of tax revenues is projected to decline from K2,392.2 million in 2008 to K227.4 million in 2013. This is a massive fall and is due to the projected decline in commodity prices – with commodity prices expected to return to more normal levels over the medium term. In addition, the decline in production from existing oil fields is expected over the medium term and new mining projects, such as Ramu Nickel coming on stream but not immediately paying tax.

#### 8.9.2.2.1 Non-Tax Revenue

Non-Tax revenue is projected to decline from K479.3 million in 2008 to K279.4 million in 2013. The major cause of the decline is lower dividend payments from Ok Tedi due projected decline in the price of copper to long-run averages. Dividend payments from other State assets, such as IPBC, the Bank of PNG and National Fisheries Authority are expected to decline to long run averages in the outyears, while Departmental non-tax revenues are expected to increase in line with economic growth. The injection of funds from trust accounts will provide a one-off boost to non-tax revenue in 2009, which will not be continued in the medium term, resulting in a sharp drop in 2010.

#### 8.9.2.3 Grants

Grants are provided at the discretion of donors. The appreciation of the Kina against most of the donor currencies – especially the Australian dollar in 2008 has reduced the Kina value of grants significantly. This is also going to be the case for grants in 2009 and 2010 which have also been converted using higher exchange rate assumptions. In the intervening years (2011-2013), grants have been held consistent with what is expected in 2010 due to limited information available from donors.

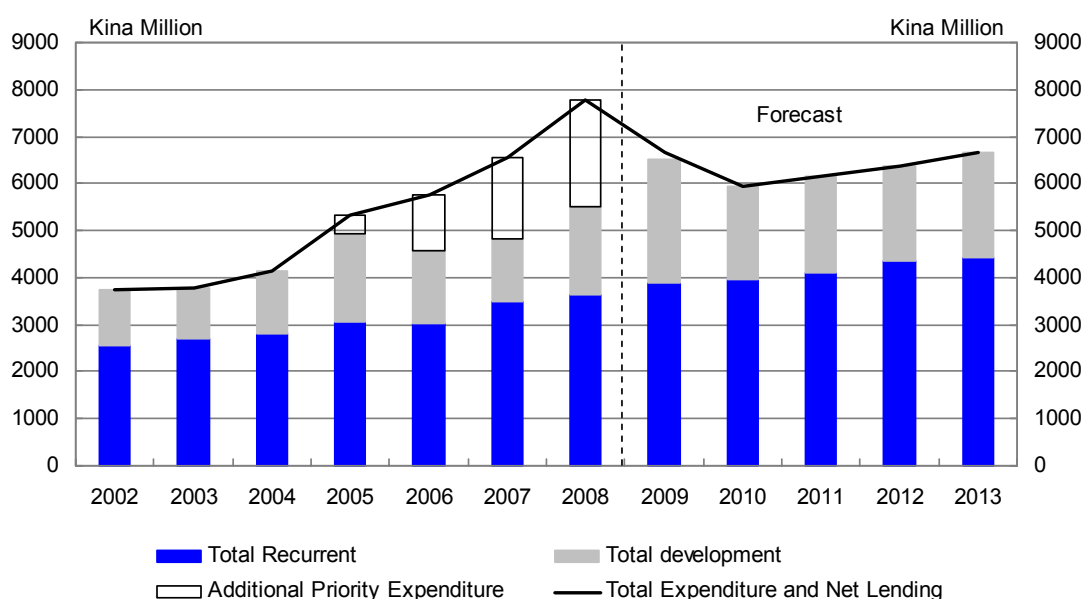


### 8.9.3 Expenditure and Net Lending

Total Expenditure is expected to decline from K7,789.9 million (36.1 per cent of GDP) in 2008 to K6,646.7 million (25.3 per cent of GDP) in 2013. This decline is because under current projections, there is no room for Additional Priority Expenditures in the medium term.

However, there will be some one-off expenditures included within the Development Budget in 2009, which are funded through the injection of funds from the Gas Commercialisation Equity Financing trust account. The remaining funds from the trust account will be reappropriated back into the trust account, to be used for LNG project equity and sunk project costs.

**Figure 27: Total Expenditure and Net Lending 2002 – 2013 (Kina Millions)**



Source: Department of Treasury

#### 8.9.3.1 Recurrent Expenditure

Total recurrent expenditure is projected to increase from K3,639.3 million (16.9 per cent of GDP) in 2008 to K4,438.0 million (16.9 per cent of GDP) in 2013.

Total Government personal emoluments expenditure is projected to increase by an annual rate of 3.8 per cent over the medium term, from K1,546.9 million in 2008 to K1,952.5 million in 2013. This reflects expected public servant pay increases, including increment advancement and provisions for superannuation. The reduction in superannuation provisions fails to meet the Government's commitment to fully fund employer superannuation contributions for public servants, and will result in an increase in superannuation liabilities in 2009, although the provision is assumed to be fully funded in the outyears.

The combination of pay increases and increment advancement means that, even with staffing levels remaining at current levels, personal emoluments are expected to continue to increase.

Goods and Services Expenditure by National Departments is projected to increase from K1,330.4 million in 2008 to K1,456.6 million in 2013. This increase reflects indexation for anticipated general price increases, allowances for anticipated future expenditures, such as the 2012 election, and some unallocated expenditure from funds which are projected to be available in the forecast period, which may be used for recurrent expenditure, based on the Medium Term Fiscal Strategy.

Legislation implementing the Review of Intergovernmental Financing Arrangements (RIGFA) was passed by Parliament in 2008, and is now being used to calculate the cost of goods and services grants for Provinces and Local-Level Governments. The new system will see goods and services funding for Provinces and Local-Level Governments increasing from K126.8 million in 2008 to K291.2 million in 2013.

Transfers to Statutory Institutions are projected to increase by the estimated inflation rate over the medium term.

Interest payments and fees on existing debt are projected to increase moderately over the medium term, reflecting the continued shift away from high risk external debt to domestic debt consistent with the Medium Term Debt Strategy, which is partly offset by the lower interest payment due to the external repayment of debt.

### **8.9.3.2 Development Budget**

Domestic Funds for the Development Budget increases significantly in 2009, due to a large number of one-off expenditures, largely funded through one off revenue injections from trust accounts in 2009. These one-off expenditures are not built into the medium term projections, resulting in a return to more normal expenditure levels in 2010. Over the medium term, domestic funds for development expenditure are projected to grow in line with inflation, and in line with the Government's strategy of increasing the Development Budget, and also include the bulk of unallocated expenditures from funds which are projected to be available over the medium-term.

### **8.9.3.3 Additional Priority Expenditure**

Due to the assumed decline in commodity prices back to long-run levels, there is not anticipated to be any Additional Mineral Revenues or Additional Priority Expenditure over the medium term.

However, given the uncertainty surrounding the projections, commodity prices could return to above long-run average levels. If this does eventuate, and additional mineral revenues become available, they will be allocated according to the Medium Term Fiscal Strategy, with 70 per cent being directed toward pre-funding public investments, and 30 per cent used to repay public debt and liabilities. The use of Additional Mineral Revenue should:

- Benefit future generations
- Be flexible, in case the additional revenues do not materialize
- Be made while considering the impact on domestic and import demand and
- Be compared to and assessed against all other potential investment projects.

#### **8.9.4 Financing**

The medium term outlook is consistent with the new MTFS. As a result, financing requirements are expected to be manageable over the medium term with expected small surpluses to be used for debt repayment.

#### **8.9.5 Public Debt**

Public debt is projected to decline marginally over the medium term, in line with small Budget surpluses. Combined with continued economic growth, this is expected to result in continued reductions in the debt to GDP ratio.