

PNG economic survey: some weak signs of recovery^{*}

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Abstract

The PNG economy has shown signs of recovery over the 2003 calendar year. This has been due to a fortuitous combination of good weather and good prices for its exports. Consequently, primary exports are on the rebound, the trade account is in a surplus, and construction, retail, and wholesale sectors are experiencing positive growth. This is a welcome change from the past as GDP contracted over the preceding three years. The current level of growth of output, however, is insufficient to bring about a rise in per-capita income, which has been falling for the past decade. Moreover, the rebound is fragile as macroeconomic stability in the form of price stability and internationally competitive interest rates are far from being achieved. The prevailing window of opportunity, therefore, must be used to improve the domestic environment for private sector investment. High on the list of policy priorities are: a return to fiscal sustainability; efforts to reduce the costs of doing business; and, efforts at completing long-instituted reforms.

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1 Introduction

The PNG economy has been showing signs of recovery over the 2003 calendar year: in the main the recovery was due to increased prices for commodity exports combined with good weather at home.¹ This is welcome news as GDP contracted over the three preceding years: by 1.2 percent in 2000, 3.4 percent in 2001, and by a further 3 percent in 2002 (BPNG, 2003c). GDP is expected to expand by 2.4 percent in 2003 (BPNG, 2003c); the 2003 Budget had forecast a growth rate of 1.8 percent. This level of growth, however, is insufficient to see a rise in per-capita GDP. With an annual population growth rate of approximately 2.5 per cent, per-capita income has been falling at an annual average rate of 1.4 percent for the decade to 2002 (see Figure 1). As a consequence, poverty has been rising. A national survey conducted in 2001 revealed that some 37 percent of the population lived below the poverty line: poverty was defined as an income below K461 per adult, considered as the level of income necessary to purchase food for sufficient energy intake. The study also revealed that some 93 percent of the poor lived in rural areas and that some 41 percent of the rural population fell below the poverty line.²

The recent positive signals for the economy include a rebound in primary exports and growth in credit to the primary sector. The growth in primary production and exports has been due to a fortuitous combination of good weather conditions and a healthy increase in the price of PNG's principal exports. The rebound in agricultural production and in the mineral sector has propelled growth in manufacturing, transport, and the wholesale and retail sectors. The construction sector is also expected to record increased activity due to ongoing infrastructure projects including major road maintenance work on the Highlands Highway, and the construction of the Napa Napa oil refinery and the Wewak tuna processing facility. The

¹ Adverse weather and political conditions in the major coffee, cocoa, and vanilla producers were responsible for the price rise for these commodities.

² As reported in ADB (2003: 8) that draws on The World Bank, 2001, "Strategies for Agricultural and Rural Development: Issues and Challenges", mimeo dated May 21, EASRD.

stimulus to construction activity, however, will be short-lived as the above projects are soon due for completion while there are no major new projects on the horizon. The improvement in the fiscal position was due to a combination of increased revenues and expenditure restraints; the latter being dominated by cuts to the development budget. There is some evidence that the economy could record even stronger growth in 2003 than presently anticipated. The increased VAT revenue is indicative of this being the case. The rebound in growth, however, is fragile: fiscal stress, inflationary pressures, and political and policy instability remain to be fully contained.

The Bank of Papua New Guinea (BPNG, 2003a) reports that domestic credit, excluding advances to the central government and for price support to agricultural exports, grew at an annual rate of 5 percent in the first quarter of 2003. The improvement in economic activity was due to an increase in oil production combined with higher export prices for crude oil, gold and copper. The non-mineral sector was also displaying healthy activity as production of all of the major agricultural and log exports, except for copra, were increasing. As some 85 percent of the population and some 93 percent of the poor live in rural areas and draw their livelihood from the land, growth of non-mining GDP is critical for poverty reduction. Tree crops such as coffee, cocoa, and oil palm provide an increasing share of household income,³ enabling rural households to substitute away from subsistence agriculture to store-bought and often imported items such as rice, flour, and tinned fish. This substitution on the one hand allows households to specialise in production and save, and thus smooth consumption over time; on the other hand it exposes them to the vagaries of the monetary economy including to inflation and changes in international commodity prices. Thus, while the rural household of the previous generation had to face the consequences of the immediate environment, their

³ As an example, the oil palm sector as of 2003 provided employment to some 6,000 workers with a total of 30,000 hectares under cultivation; this is double the figure a decade back (information provided by New Britain Palm Oil Limited).

present-day counterparts who have access to a much wider market are also exposed to risks from afar. This leaves the villager subject to economic conditions both at home (that is, in the nation as a whole including the costs of trade, level of inflation and the exchange rate) and abroad (such as global commodity prices).

As the economy becomes increasingly monetised, the health of the macro-economy has a direct bearing on the wellbeing of rural households. Economic mismanagement, therefore, has a greater impact than ever before on the wellbeing of the general population. As an example, the ordinary villager now has the choice of keeping his savings in a bank account as Kina deposits, provide the same as bride price for a close kin in the expectation of a return down the track, invest in a pig, or possibly contribute to the campaign funds of a local aspiring politician.⁴ The choice between these options is influenced by the relative returns: savings in a bank account rank low, given the prevailing low real rates of return (low deposit interest rates and high inflation), while the last-mentioned is high-risk with commensurately high returns for the individual but possibly with negative returns to the community as a whole.

While the wider market provides opportunities to increase income and hedge against the vagaries of the immediate environment, it also increases the dependence of households on institutions and infrastructure that facilitate trade across the wider geography. Most importantly, most of this trade is beyond the *wantoks*, thus there is greater reliance on national and international institutions, including the formal payments systems and basic trust between contracting parties. The individual now relies on formal instruments such as the banks and courts, to enable impersonal exchange both across space and over time. Consequently, economic management and the costs of trade play an increasingly important role in

⁴ The decision to save only follows after the villager has decided not to consume this income, which in itself is a non-trivial exercise.

determining the income and welfare of the ordinary villager. The PNG state, in many respects, has been deficient in providing a sound basis for such exchanges to take place. Macroeconomic instability in the form of high inflation, in access to competitively priced credit, transportation and communication services, and the poor law and order situation have impeded growth of production.

2 The Poor Developmental Record

The developmental record of Papua New Guinea post independence, both in relation to its neighbours and to its own past, has been poor. The 2002-average per-capita income of US\$530 and life expectancy at birth of 57 years is amongst the lowest in the region (see table 1). Anecdotal evidence suggests that PNG has its fair share of wealthy individuals;⁵ thus the low average income suggests a higher income-variability than the rest of Melanesia. The low life expectancy is due to the high infant mortality that drags down the average for life expectancy at birth. Moreover, the variability in infant mortality within PNG is a lot larger than that between the countries listed in table 1. Infant mortality ranges from a high of 111 for the Gulf province to 40 for Manus; the Island regions perform better on this measure than the Highlands.⁶ To the extent that it impacts on the costs of transportation, geography may partly explain this difference. The large variability in infant mortality is also likely to reflect the disparity in access to basic healthcare, education, and transportation services: the first has a direct link while the latter two are indirectly related. Of grave concern is the fact that infant mortality worsened from 72 per thousand live births in 1980 to 82 by 1991 followed by a modest improvement to 79 by 2002. Life expectancy, however, improved from 52 years in 1980 to 57 years by 2002.⁷

⁵ A casual observer to Port Moresby notes the large number of luxury vehicles relative to any other island-capital city in the South Pacific.

⁶ The data are for 1991 as reported in United Nations Children's Fund 1996. *Children, Women and Families in Papua New Guinea: a situation analysis*, Port Moresby: 73, Table 4.2.1

Table 1: Basic Regional Indicators for 2002

	Life Expectancy (years at birth)	Per-capita GNI (\$US)	Infant Mortality (per 1000 births)	Illiteracy (15+ population)
Fiji	70	2160	18	7
Indonesia	67	710	33	17
Papua New Guinea	57	530	79	35
Solomon Islands	69	570	21	n.a
Vanuatu	69	1080	33	n.a
Samoa	69	1420	18	1

Source: *World Bank Development Economics Central Database*, accessed on 7/11/2003

PNG has faced some difficult development challenges since independence. The difficult terrain together with the highly fragmented population has made the task of nation building very difficult. The people, who draw affinity from their customary and communally owned land or language group (ie the *wantoks*), have remained divided: the nation, thus, may be akin to a loose federation between groups.⁸ Strong local communities in an environment of a weak over-arching state in a topographically difficult terrain for communication and trade has made deep integration between communities difficult. The costs of commodity trade are high due to poor infrastructure while labour mobility is difficult given the communal land tenure that restricts acquisition of land for housing. In this environment, creating smoothly functioning markets with impersonalised trade across the nation and abroad is indeed a difficult task.

The Bougainville war and several natural disasters, including a record drought in 1997, have added to the challenges of economic management in recent years. The nation, however, has also enjoyed significant resource discoveries in its post-independence period. Contemporary

⁷ The data used in this paper are from World Bank and official PNG sources; their quality, however, is poor and thus care must be taken in interpreting the reported figures.

⁸ Secessionist demands by various groups have a long history predating independence.

PNG is the net effect of the fortunes, misfortunes, management, and mismanagement of its past. The poor developmental record post independence is testimony to the fact that policies on the whole have not been conducive to widespread growth in income.

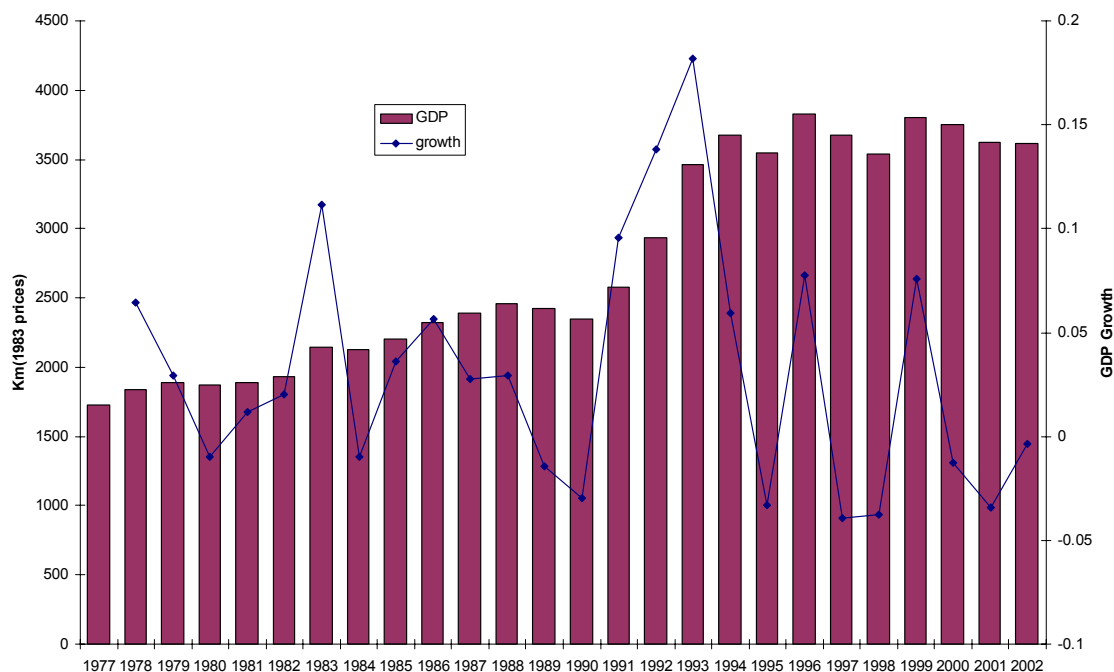
3 Macroeconomic Performance

Real Gross Domestic Product (GDP) for the decade to 2002 increased at an annual average rate of 1.1 percent; with an annual average rate of population growth of 2.5 percent over the period, per capita GDP has declined at an average annual rate of 1.4 percent. Agriculture accounts for approximately 30 percent of GDP and less than 20 percent of exports but provides the livelihoods of approximately 90 percent of the population. Mining accounts for 21 percent of GDP and some 75 percent of exports, in the form of gold, crude oil, copper, and silver. Manufacturing accounts for 9 percent of GDP and is mostly in the form of small-scale production for the domestic market.⁹ The output of the primary sectors depends heavily on weather conditions, particularly on the level and distribution of rainfall, since all of the agricultural production is rain fed while transportation of copper concentrate from Ok Tedi, the largest mine, is via the Fly river (with its depth being determined by the rainfall). Adverse weather conditions, therefore, impact heavily on the level of GDP and exports. Consequently, output varies considerably from year to year as shown in Figure 1 below. The low rates of growth of output over the long term, however, are due to structural deficiencies: this is taken up in some detail in section 5.

⁹ Mineral exports accounted for 75 percent of total export earnings in 2002 (comprising gold, crude oil, and copper contributing 36, 23, and 16 percent, respectively), agricultural products accounted for 17 percent, forestry accounted for 7 percent, while marine products contributed one percent.

Figure 1: GDP (level and growth rate, 1990-

2002



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The Government continues to draw on domestic savings to fund its budget deficits. During 2003, delays in privatisation and the holding back of a US\$35 million tranche of a loan for the Public Sector Reform Program by the Asian Development Bank created added pressures for domestic financing, driving up interest rates in a thin domestic capital market. In attempting to contain inflationary pressures, over the 12 months to June 2003 the central bank tightened monetary policy through increases in the Kina Facility Rate (KFR), thus compounding the problems for growth of private enterprise by making investments more costly. At least a part of the deficit will have to be monetised should external support not be secured soon: the above combination of fiscal excesses with a tight monetary stance runs the risk of landing the economy in a trap of high and rising inflation and/or nominal interest rates with low growth of output. The weighted average interest rates on performing loans from the commercial banks as of June 2003 was 14.8 percent while the interest rate on deposits was 4.6 percent. With

annual (CPI) inflation of 19 percent,¹⁰ the corresponding real rates were negative 4 and negative 14.4 percent on borrowings and savings, respectively. The negative real interest rates act as an impediment to savings that could in turn lead to dwindling net savings in the economy as a whole. The only way out of this situation is through a resolution of the deficit bias and a return to fiscal sustainability such that inflationary and interest rate pressures can be contained and brought down to internationally competitive levels.

BPNG has signalled its belief that inflationary pressures may be easing with its cuts of the KFR in August and October. It also cut the commercial banks cash reserve requirement in October. The Government used the higher-than-expected tax revenues and royalties, and sales from public assets (K60 million), to pay off Treasury Bills and the temporary advance from the BPNG. However, these are one-off relief measures that cannot be a source of long-term relief. With its emphasis on controlling departmental expenditures, the 2004 budget brought down by the Government in November suggests that there are deficit-increasing inflationary pressures still at work.

Table 2: Latest macroeconomic indicators

Indicator	
Annual increase in CPI to June 2003	19.0 percent
28-day Treasury bill rate as of 3 rd October, 2003	18.45 percent
Annual increase in public sector credit to August, 2003	17.0 percent
Annual increase in private sector credit to August, 2003	-2.5 percent
Weighted average lending rate on performing loans	14.8 percent
Weighted average rate on deposits with commercial banks	4.6 percent
Gross foreign reserves as of June, 2003	3.7 months of import cover

¹⁰ CPI inflation has fallen from the highs with BPNG officials suggesting that it was 11.5 percent by October 2003.

Public debt as December 2002	76 percent of GDP
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Note: Data drawn from BPNG Website: <http://www.bankpng.gov.pg/>

PNG's external position has improved over 2003 with the current account recording a deficit of K82 million to June and with the BPNG expecting a surplus of K575 (equal to US\$175 or 5 percent of GDP) for the 2003 calendar year. Foreign exchange reserves at the end of June 2003 amounted to K1,283 (equal to US\$360.7) million and sufficient for 3.7 months of total and 4.7 months of non-mineral import cover. The appreciating exchange rate and improvements in the current account and foreign reserves positions are due to improvements in commodity prices together with a positive supply response (see figure 2 and Bai, 2003).¹¹ Receipts from mineral exports have increased as a result of higher international prices for copper, gold and crude oil, which more than offset the falls in the volume of gold and copper exports. Oil production has increased, with declines from Kutubu and Gobe fields more than offset by increased production from the Moran field. According to the Department of Petroleum and Energy, production for the first nine months of the year was 7.7 per cent higher than for the same period last year, while total oil export earnings were 23 per cent higher.

Export earnings from agricultural commodities have increased in 2003 due to increased prices as well as increased volumes. In relation to the domestic price levels in June 2002, coffee prices increased by 4.8 percent, cocoa by 19.9 percent, copra by 81.8 percent, logs by 0.5 percent, palm oil by 25.9 percent, and rubber by 57.2 percent. The weighted average price of agricultural, forestry and marine products increased by 13.4 percent (BPNG, 2003b: 12).

Favourable weather conditions saw an improvement in the volume of coffee and cocoa production while the higher international prices were due to adverse supply shocks including further reductions in coffee area in Vietnam, and continued civil unrest in the Ivory Coast (the

¹¹ BPNG employs exchange control, thus the build up of reserves cannot be attributed solely to improvements in the trade account.

largest cocoa producer). The rise in the price of palm oil is due to declining production from Malaysia and Indonesia and to increased demand from China. As shown in figure 3, PNG's major exports face volatile international prices; agricultural products face relatively greater volatility as they are subject to high levels of government intervention and therefore lack well-developed futures markets while being more prone to weather conditions. There is no guarantee that the favourable conditions in terms of high international prices or good weather conditions in Papua New Guinea will last, thus the current window of opportunity has to be used to improve the international competitiveness of these industries. Improving infrastructure and raising productivity via improved farming practices could substantially lower costs of production, thus consolidating the gains of the recent past. In contrast, the idea being floated of a 50 per cent tax on cocoa exports in order to make a cocoa processing factory profitable is indeed misguided. Implementation of such a tax would effectively transfer a large share of cocoa farmers' incomes to the owners of the cocoa processing factory and substantially reduce the volume of cocoa harvested.¹²

The depreciation of the kina in recent years has raised prices of exports and importable commodities in kina terms; the kina is now appreciating against the \$US (but has remained stable against the \$A) so that kina prices of exports are likely to stabilise and possibly fall in the absence of increases in world prices (see figure 2). Moreover, the approaching festive season will see a surge in imports that will put downward pressure on foreign exchange reserves and the kina. Some 60 percent of imports are from Australia with the bulk of these denominated in the Australian dollar that has lately been appreciating against the US dollar.

¹² Ghana tried a similar scheme with cocoa that nearly killed the industry altogether: cocoa exports fell from 19 percent of GDP in 1955 to less than 3 percent by 1983.

Figure 2: Foreign Exchange Reserves and the Exchange Rate (Jan, 2000 to June-2003).

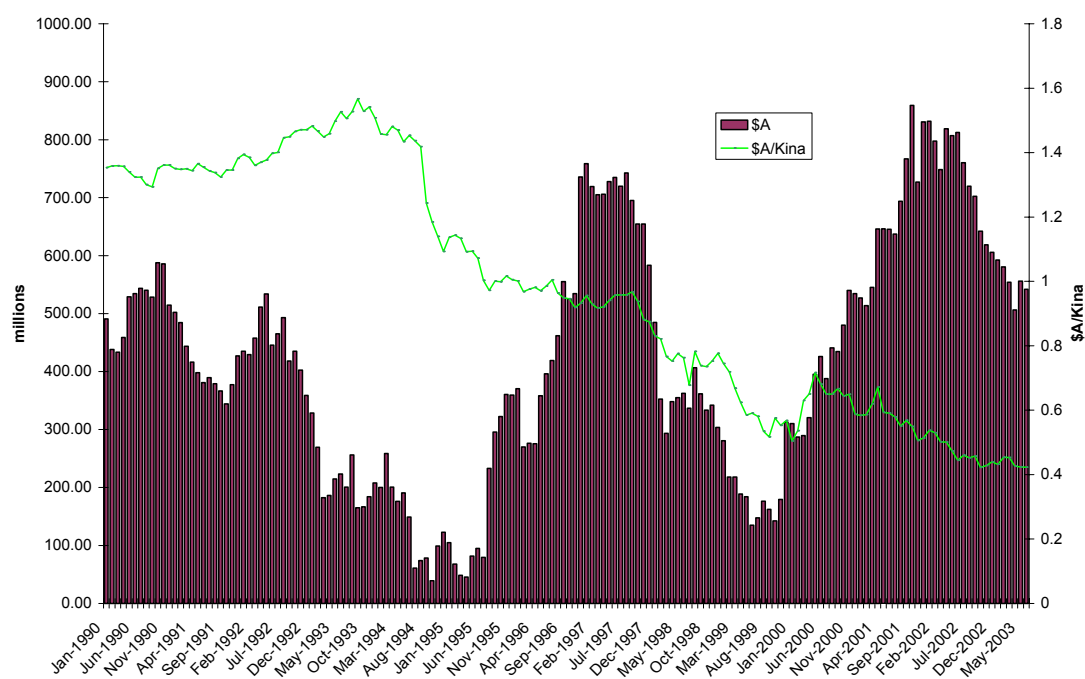


Figure 3: Movement in International Commodity Prices for Principal Exports

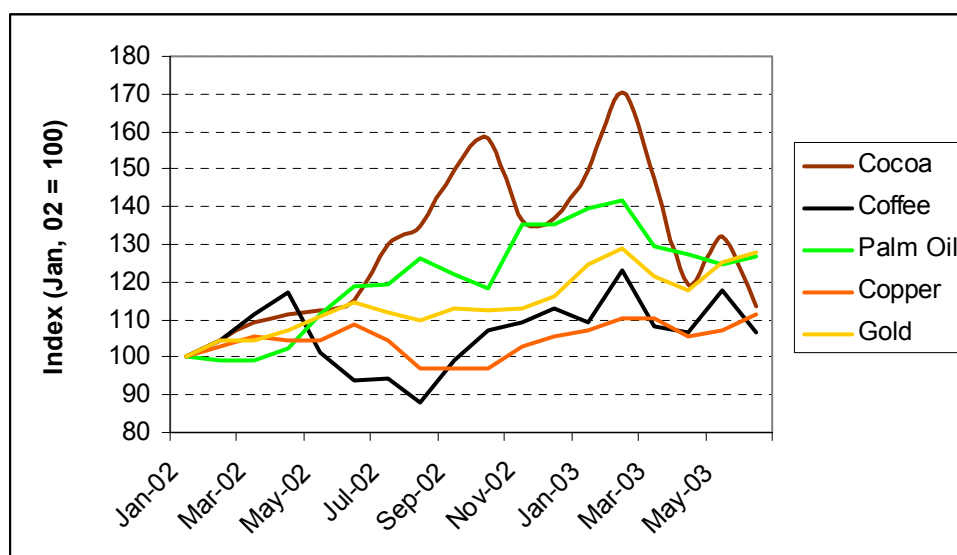
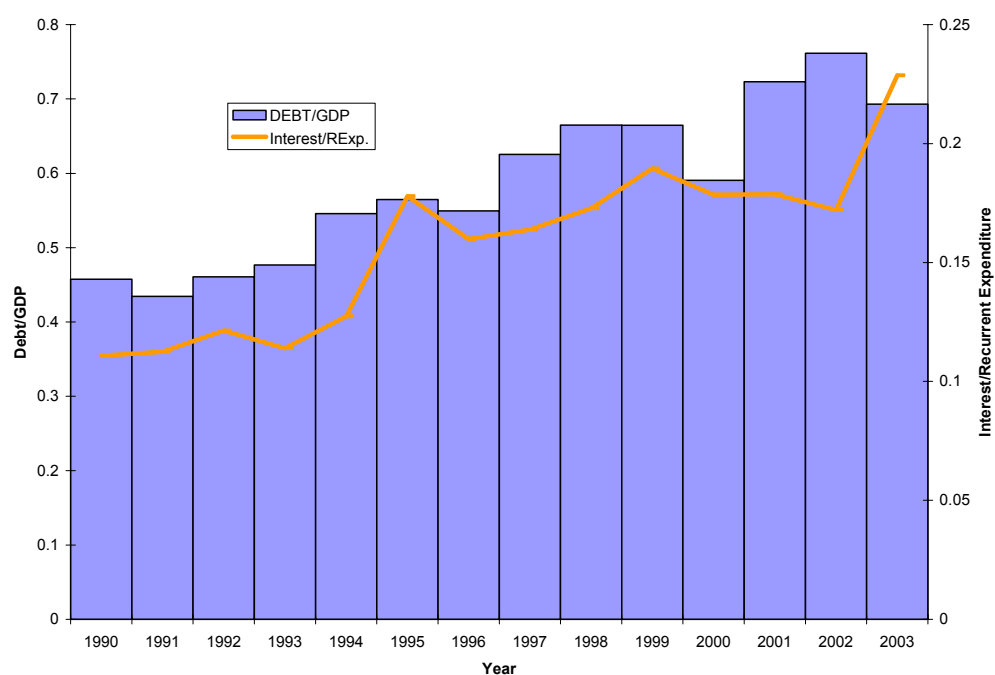


Figure 4: Level of public debt and share of interest costs in the recurrent budget



The fiscal situation remains tight with debt levels as of June 2003 of approximately 70 percent of GDP (see Figure 5). Interest payments accounted for 22 percent of the budgeted recurrent outlays for 2003. As shown in Table 2, revenues to June 2003 amounted to 41 percent of the budget forecast for the year as a whole: while tax receipts were on par due to buoyant exports, excise collections fell short of expectations. Expenditure to June 2003 amounted to 39 percent of the budgetary allocation for the year as a whole: the reduction was achieved at the expense of development expenditures that amounted to 21 percent of the annual allocation. Recurrent outlays were pushed up by a rise in interest payments that crowded out other allocations to the national and provincial governments.¹³ While collections from export taxes have grown with exports, excise collections have failed to keep pace with the growth in the economy suggesting that compliance may be a problem. The containment of the deficit by curtailing development expenditure could be counter-productive as it may deplete the productive potential of the economy.

Table 2: Revenues and Expenditure to June 2003

	Kina, Millions	Percent of 2003 Budget
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¹³ It is estimated that some 10 percent of the total salaries and wages bill of approximately K1.2 billion is accounted for by 'ghost' workers (see Manning, Kavanamur, Okole, and Levantis, 2003).

Total Revenues	1430.1	41
Tax receipts	1212.5	49
Foreign grants	124.9	15
Total Expenditure	1448.7	39
Recurrent Expenditure	1196.5	47
Interest payments	374.9	65
Development Expenditure	252.2	21
National Projects	203.1	21
Budget Deficit	18.6	

Note: data drawn from BPNG, 2003b: Table 8.1

The financing requirements for the budget to June 2003 comprised a net obligation on the external sector of K165.4 million: this amount was raised via a commercial external-loan of K22.8 million, with another K184 million raised domestically. Most of the domestic funds came from the non-banking system. The government swapped its concessional commitment of K22.8 million for an equivalent loan on commercial terms, thereby increasing its debt service commitments for the future. The heavy reliance on domestic financing strategy is unsustainable given the thin domestic market. Treasury bill rates rose across all maturities as a result of continuous Government issues of treasury bills. The Bank of PNG has been forced to tighten liquidity conditions to moderate inflationary pressures from the ensuing fiscal stimulus. The improving current account balance has relieved pressure on the exchange rate, but domestic savings are increasingly being used to fund the deficit.

The 2004 budget presented to Parliament on 25 November 2004 continues with the theme of stabilisation with growth. The government has committed itself to continuing with its efforts at promoting good governance, improving economic management, raising public sector performance, and removing barriers to investment and economic growth. GDP growth for 2004 is forecasted at 2.8 percent, the realisation of which will see some marginal growth in per-capita income. Of a total expenditure of K4.1 billion, some K1.3 billion is for development of which some K849.7 million (that is 67 percent) is funded via foreign grants. The infrastructure sector has been allocated K461.5 million; the largest share from the

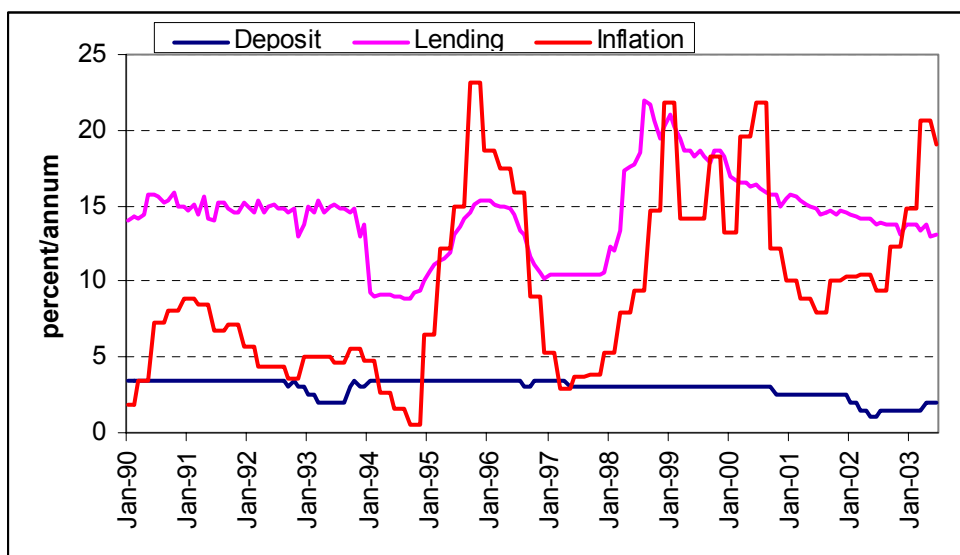
development budget, with some K121 million being allocated to fund the ongoing maintenance and rehabilitation of the Highlands Highway. The social and economic sectors have been allocated K340.8 million and K162.4 million, respectively. Members of Parliament have been allocated an additional K100, 000 each as a down payment for sustaining political stability. In hindsight, this proved to be futile as the government was unsuccessful in getting the necessary support to allow passage of a constitutional amendment extending the term from the current 18 months to three years before a vote of no confidence could be moved against the Prime Minister. Expenditure restraints in the form of a recruitment and wage freeze in the public service are to continue. The excise on tractors used for agriculture and forestry work has been removed while that on tobacco and liquor is frozen to December 2004. Import duty on poker machines has been reduced from 175 to 50 percent. Taxes on log exports have been reduced by 5 percentage points, while 150 percent deduction now applies to costs associated with extension services and research and development for primary production. Total revenues are estimated to amount to K3.8 billion; amongst the new revenue initiatives is an imposition of an import levy of 2 percent for 2004 and a proposal to allow local level government to impose a head tax of a maximum of K50 per individual, or five days of work, and K100 per corporation. The deficit of K300 million (equal to 2.4 percent of GDP) is to be funded with a commercial loan of US\$50 million with the remainder from domestic borrowing. The continuing deficit together with an increasing reliance on domestic sources for its funding will see increased pressure on the domestic interest rate and possibly inflation.

It is important to understand the origins of the loss of fiscal discipline if a lasting solution is to be found to the current problems of high and rising debt levels with persistent deficits. Debt levels and foreign borrowing were kept in check until the early 1990s since “restraint on foreign borrowing by government was largely self-enforcing” due to the 1980’s debt crisis in many developing economies, dissuading international banks from extending further lending to the

developing world (Elek, 2001: 325). Maintaining fiscal discipline proved impossible following the closure of the Bougainville mine in May 1989 due to a sharp contraction in revenues and loss of export earnings. This was accompanied with increased expenditure on national security. The revenue shortfall was compounded by declining aid, particularly in per capita terms, as well as the redirection of this aid away from budgetary support to program and project aid (see Garnaut, 2000 and Elek, 2001). The ensuing deficits had to be financed domestically: this was the beginning of the deficit-debt spiral. The resulting excess demand led to an erosion of foreign exchange reserves given the fixed exchange rate, a situation that could not be sustained indefinitely. The balance of payments crisis of 1994 was inevitable: it forced the float of the kina and sharp cuts in public expenditure in the immediate aftermath of the crisis. Subsequent extravagances by the state, sometimes based on overly optimistic revenue projections, have led to persistent deficits and rising public debt

The economy continues to display the typical symptoms of macroeconomic stress with high inflation, high interest rates, persistent deficits, growing debt levels, and a lethargic private sector. The Bank of Papua New Guinea has had some success in keeping inflation under control, but this has been at the cost of high interest rates that have in turn, restrained growth of private enterprise. Real interest rates, however, have remained low and possibly at a cost to financial intermediation (see figure 5). The macroeconomic stress can be sourced to a prolonged deficit bias in fiscal stance: a correction of such a bias is necessary to alleviate further build up of the macroeconomic problems currently being experienced.

Figure 5: Commercial bank interest rates and inflation (1990-2003)



Notes: Monthly interest rate data and quarterly changes in CPI from BPNG has been used; deposit rates are the minimum levels on passbook deposits; lending rates to December 1993 are for new loans while the weighted average rate on advances has been used for the subsequent period.

The above suggests the following four lessons in relation to strategies to induce macroeconomic stability. First, deficits must be contained and possibly reversed to contain inflationary pressures, lower interest rates, and stabilise the exchange rate. Second, the improvement in the current account as exports recover provides a window of opportunity to build reserves and stabilise the kina, since the favourable external conditions cannot be assumed to last. Third, foreign financing must be accessed while productivity of public resources is improved, given that further funding of the deficit from domestic sources will put increased pressure on domestic interest rates. Fourth, the productive capacity of the economy has to be expanded to bring the debt to GDP ratio down: that is, the structural impediments to growth of output must be addressed. On the last, the international competitiveness of exports can be improved by lowering the costs of private investment through measures that lead to policy stability, improved security of persons and property, long-term and secure access to land, and better access to competitively priced credit and utilities. In sum, the domestic cost

structure has to be brought down to internationally competitive levels if labour intensive production is to be encouraged to absorb the large and growing pool of under-employed.

4 Sectoral Performance

The primary sectors of the economy have been showing signs of recovery: this has been due to improvements in the prices of exports due to a combination of a rise in international prices of cocoa, palm oil, and lately vanilla and the recent depreciation of the kina. Farmers have responded to the price signals by increasing supply of the above commodities (see Bai, 2003). The past depreciation of the kina has also induced production of import substitutes such as rice and local traditional food. Growth of primary production can be ensured only if it remains profitable: the question remains as to how to ensure such an outcome in the face of volatile international prices and sometimes adverse weather conditions. Farmers will continue to produce so long as the income terms of trade improves such that the impact of price falls are at least offset by reductions in costs and/or increases in quantity supplied. The case of vanilla is used to illustrate the risks and opportunities presented by the international market in relation to agricultural production.

Vanilla production has been growing rapidly, driven principally by rising international prices. The price of dried vanilla beans rose from US\$50/kg in the year 2000 to US\$150/kg in 2003, and to an all time high of US\$200/kg in October 2003. The steady rise in vanilla prices was due to the fall in supply from Madagascar, the major natural vanilla producer that accounted for some 75 percent of the world's vanilla supply. Crops in Madagascar were damaged in 2000 by a cyclone that wiped out more than 30 percent of the vanilla crop and destroyed storage houses containing much of the inventory. Since the cyclone, bad weather has continued to hinder a full recovery; above average rainfall for the past two years, and especially during the period of bloom, has kept production well below the norm. The recovery in vanilla exports from Madagascar has also been hampered by the lag between

planting and production: it takes new plants three years to start producing beans. Vanilla is a highly labour intensive crop requiring hand pollination during the period of bloom,¹⁴ thus it can be a source of much needed employment. The prevailing high prices, however, cannot be assumed to last as supplies from Madagascar (and elsewhere such as Uganda) will recover while artificial substitutes will also take away some of the market. PNG farmers should capitalise on the favourable prices but growers must factor in the fact that prices will fall from the current highs in the near future. The ability of growers to lower costs of production and to diversify into crops that provide the highest returns at any point in time, therefore, remains critical for continued growth of agricultural production.

Mining is a significant sector, earning PNG the bulk of its foreign exchange and providing the state with significant tax revenues. Mineral exports have grown in value from K2.4 billion in 1998 to K4.7 billion by the end of 2002: the increase is due to a combination of the depreciation of the kina and the rise in international commodity prices. In terms of quantities, gold exports of 14.6 tonnes for the June quarter of 2003 was a tonne lower than that exported in the corresponding quarter of 2002. This fall in volume, however, was offset by a 7 percent rise in the price of gold for the period such that export receipts of K584.6 million for the June quarter were 0.5 million kina above the figure for the corresponding quarter of 2002. Copper export volumes fell by 2.2 percent to 53.2 thousand tonnes in the June quarter of 2003 compared to the corresponding quarter of 2002. This was due to a fall in production from regular maintenance of a mill and reduced shipment due to low water levels in the Fly River. Crude oil exports rose by almost 950,000 barrels in the first nine months of the year to 13.33 million barrels—an increase of 7.7 per cent on the same period of 2002. Total oil export earnings for this period were K1.39 billion, up 23 per cent on the same period of last year. Declines in production from Kutubu and Gobe have been more than offset by production from

¹⁴ Vanilla plants blossom at dawn and the flowers wilt by the afternoon and die soon afterwards if not pollinated, thus the flowers must be pollinated on the day if fruit is to be harvested some nine months later.

the new Moran field. Oil and mineral exploration expenditures have also increased as a result of the higher world prices over the past two years.

The improvements in the current account can be attributed to a healthy mineral sector: the continued buoyancy of the sector is critical to ensuring a stable kina and continued revenues for the budget. The fall in foreign direct investments in the sector,¹⁵ the fall in crude-oil reserves at existing wells, falling capital expenditures at several of the mines,¹⁶ and the absence of any major projects coming on stream over the medium term highlights the urgency for growth of non-mineral exports to sustain the kina at current levels and provide an alternate source of revenues for the state.

The services sector contributes to less than a third of total GDP with ‘Community, social and personal services’ alone accounting for some 13 percent, ‘Wholesale and retail trade’ contributes 9 percent while ‘Transport, storage and communication’ and ‘Construction’ account for 5 percent and 4 percent, respectively (data are for 2002). The informal sector is showing strong signs of growth as urban populations expand and demand for services, both legitimate and illegal, expand. The story of a Goroka woman making a livelihood out of retailing fresh vegetables in the Port Moresby market as reported in the *Post Courier* of 2nd October 2003 provides evidence of the enterprising spirit and the significant potential for the expansion of the informal sector. This enterprising woman buys vegetables from farmers from the Highlands and Central Province to resell at the Port Moresby market. High-altitude crops such as cabbages, lettuce, broccoli, kaukau and potatoes from the Highlands travel down the long and sometimes treacherous Highlands Highway to Lae before being shipped over to Port Moresby. Tropical crops such as pawpaw, tomatoes, eggplants, beans, and cucumber travel by road to Port Moresby from the Central Province. The retailer is able to

¹⁵ The capital account recorded nil transactions for the June quarter of 2003.

¹⁶ Lihir and Porgera mines are exceptions in this regard.

meet the demand while being competitive relative to imports. The profit from the enterprise is used to provide for the family, including investment in the education of her four children. There are parallel stories for several products including illegal activities that are undertaken to meet 'demand'. Costs determine the 'competitiveness' across activities including between those that are legitimate and those that are not. Policy has a role in inducing one vis-à-vis the other; this includes encouraging 'value-adding' rather than 'value-destroying' (eg criminal) activities.¹⁷

5 Policies to induce increased value-adding activities

Several studies have pointed out that the major impediments to growth of private enterprise include: the poor law and order situation that has raised the costs of doing business; poor public infrastructure that has raised transportation costs; and government regulation and ad-hoc policy changes including those relating to international trade. Duncan and Lawson (1997) and Levantis and Yala (1998) amongst many others claim that the high level of crime is the single largest hurdle to growth of private enterprise. According to survey results from Levantis and Manning (2002), security costs and those due to theft amounted to 15 percent of turnover in the agriculture, forestry and fisheries sector; 13 percent in hotel and restaurant sector; and, 12 percent in building and construction.¹⁸ The survey reveals that small to medium sized firms spend some 12 percent of their gross income on security while local firms incur higher costs compared to foreign firms. While manufacturing is heavily protected with effective rates of protection on soap, sugar, tinned fish, cooking oil, and steel production exceeding 100 percent, agricultural production is taxed (see Tariff Review Report, 2003: 54). In sum, local firms engaged in the primary non-mining sector incur the greatest burden from the poor and deteriorating law and order problems as well as from the tariffs on their inputs.

¹⁷ Levantis (2000) uses survey data to suggest that criminal activity provides an average income that is 64 percent higher than the minimum basic wage rate for unskilled workers.

¹⁸ These costs are an under estimate of the 'crime tax' as it omits costs incurred by firms that have exited the industry, reduced scale of output and markets of firms remaining in the industry, and the loss of output of those firms deterred from participating in the first place.

They neither have the scale of operation nor the geographic mobility to be able to reduce such costs.

Large firms, most of whom are foreign owned, are able to minimise the tax crime imposes on their operation in two ways: first, they are able to take advantage of economies of scale in providing security; and second, they self select themselves out to operate in sectors where returns are sufficiently high to compensate for the 'crime tax'. The crime tax, however, is not small as noted by Ben Tureia, the operations co-ordinator of Porgera Gold Mine, who is reported in the *Post Courier* of 14th October 2003 as saying that "Law and order problems continue to plague the Porgera Gold Mine". He goes on to note that "theft along the Highlands Highway, illegal mining and blowing up of power pylons" are the three main areas of concern, noting that the mine had lost some 213,804 litres of fuel alone to theft in the previous 12 months.

The bad crime and governance image of PNG is a major deterrent against much needed foreign direct investment. Attempts by the government to promote PNG as an investment destination for Asians has been hampered by this poor image. As an example, Prasong Kiratiratana, a Thai wood-processing executive interested in Papua New Guinea's abundant natural resources, noted his concerns about personal safety and the security of his assets as reasons for holding back investments into PNG. Mr Kiratiratana is quoted on page 3 of the *Bankok Post* of 23 October 2003 as saying "I don't know yet about the local people's culture, the country's regulations and the crime situation. The big question is the security issue. I will not make a decision to invest there until I am confident it is a safe place to be and my assets are secure." The listing of PNG as the 15th most corrupt nation in the world by Transparency International Berlin in its annual Corruption Perception Index of 133 countries underscores the poor image PNG has amongst foreign investors.

The maintenance of law and order and public security is a social responsibility and one that was historically adequately provided at the level of the village and the immediate surroundings. While the costs of social disruptions to value-adding activities are internalised at the village level, the same has not been achieved at the level of the province or the nation as a whole. Part of the problem may be due to lack of resources as Levantis (2000) and Manning (2003) show that law enforcement agencies are grossly under resourced relative to their counterparts elsewhere. The Australian offer of personnel and management expertise to increase the quantity and productivity of resources employed to provide law and order is, therefore, both welcome and long overdue. The highly fragmented nature of PNG society makes nation building a difficult task. Inter-community rivalries predating the creation of the PNG nation state remain a flash point for conflicts. Traditionally, marriages across neighbouring communities have been used within much of Melanesia for strategic reasons: increased commodity trade could serve a similar purpose whilst providing all of the usual gains from such trade.

Land based resources such as minerals and timber that confer significant wealth to the owners provide incentives to maintain tight knit communities around land so as to minimise the possibility of dissipation of the ensuing rents across a wider population and a larger geography. Those distant from the locality enjoying the riches use bottlenecks such as those around infrastructure to extract as much rent as possible. The exorbitant compensation demands for roads leading to mines and extortion of infrastructure following their construction are mechanisms used to extract the rent. While large fertile resource endowments may provide the returns sufficient to meet the above demands, high grading follows as a natural consequence. More importantly, sectors with lower levels of returns such as commercial agriculture are made commercially non-viable from the taxes imposed by the exorbitant compensation demands, with the net effect of an economy being locked into the resource sector with high grading and pervasive rent-seeking. For example, marijuana

cultivation survives in the Highlands only because it is able to provide an adequate return given the multiple taxes including expensive transportation. The preferred equilibrium would be to have an economy that engages in value-adding activities across the full spectrum of returns and sectors such that sufficient employment is generated for the wider population who then find it less profitable to engage in criminal activity.

If the prevailing situation of low growth, a strong bias in the structure of production to the resource sector, and poor law and order are the symptoms of an economy trapped in a low-growth equilibrium, then the deep causes must be addressed. Mechanisms to ensure secure and long-term access to land and means of equitably sharing resource rents without creating the incentives for ‘value-destroying’ activities – such as large compensation claims *ex post* investment – must be devised. These are indeed difficult issues to address and ones that cannot be adequately addressed here. A start, however, can be made. Leasing arrangements that facilitate long-term secure access to land that gives security to the lessor while providing an adequate return to the owner so as to induce cooperation leading to the most productive use of the resource would be a significant step in the preferred direction.¹⁹ This is most likely to take place in a stable macroeconomic climate such that sufficient value is placed on future output; that is, the discount rates must be low enough to induce cooperation between the user of the resource and the owner. Intermediaries that can match the long-term demands of the lessor whilst preserving the option for short-term access to land by the owner can assist in this process.²⁰ Resource discoveries or the potential for the same raise the incentives for non-cooperation significantly. Writing out complete contingent contracts that can be enforced *ex post* of such discoveries is critical: this requires a strong nation state.

¹⁹ This is much akin to the challenge of turning a prisoners’ dilemma into a prisoners’ delight.

²⁰ The challenge here is parallel to that of a depositor with a bank who wants ready access to liquidity while the investor wants long-term secure access to the credit from the bank.

Political instability that translates directly into policy instability has been a pervasive problem. All governments since independence have been coalitions and none to date have been able to serve their full term in office. Political stability has been induced via legislation in the form of the Integrity of Political Parties Law, passed in 2001, that constrains sitting members to vote with their political party or forego their seats, and an amendment to the constitution that disallows motions of no confidence to be moved against the Prime Minister within the first 18 months of taking office. This constitutional amendment has had some success, but an attempt in November 2003 to extend this grace period to three years failed to get the necessary support in parliament. Political competition between individuals has traditionally been robust, and thus to the detriment of formation of strong parties. Development funds are placed within the control of individual members of parliament, thus providing public resources to reward their own support base. The highly fragmented nature of the PNG state, comprising some 850 language-groups, provides a political climate conducive to individualised political competition at the highest level of government. This is evidenced by the dwindling number of seats won by members having majority support in their electorates: of the 109 member-Parliament, 18 members acquired majority (that is, greater than 50 percent) support from their electorates in the 1977 elections; by the 1997 elections this number had dropped to four; while the 2002 elections saw a single candidate amassing more than 50 percent of the votes from his electorate.²¹ The strong trend towards candidates winning seats on a narrow and concentrated support base when several contestants are present has induced use of divisive tactics to fracture the electorate as well as explicit payments or implicit agreements to do so on attaining office.²² This has led to a change in the electoral system from the ‘first-past-the-post’ system to, ‘optional preferential voting’ and then to ‘limited preferential voting’ so as to induce a widening of the support base for incoming members of parliament. The preferential

²¹ Of the 109 sitting members, 89 lost their seats in the 2002 elections, underscoring the revolving door nature of entry and exit from the Parliament.

²² A failed candidate for the 2002 elections informed the author that he spent half a million Kina in the campaign; and that candidates in the Highlands spent up to K2 million for their campaigns.

voting system cannot be used without qualifications given the low literacy rates, thus the option adopted of a system that allows for three ordered preferences per vote. It is too early to judge the success of the above electoral changes, while policy instability continues to penalise growth of output.

Policy instability, including anti-competitive practices, has raised the cost of private investment. The decision to maintain a tariff rate of 70 percent on sugar to 2010 and a 2003 decision to introduce a 40 percent tariff on imports of salt are in conflict with the long-term commitments made to trade liberalisation. Such policies reward rent-seeking activities (including lobbying for domestic protection) while taxing long-term private investment in internationally competitive industries. Ad hoc changes in policy, moreover, destroy the long-term credibility of policy pronouncements. Furthermore, the decision to delay liberalisation of trade is in conflict with the objective of export promotion, given that a tax on imports is an equivalent tax on exports (see Tariff Review, 2003). Moreover, a domestic industry created via protection survives by taxing domestic consumers and is seldom able to compete in export markets. It is the domestic consumers, and particularly the poor, who pay for high rates of protection such as those on imported salt, soap sugar, tinned fish and biscuits. The high levels of protection have raised compliance costs by raising the incentives to circumvent customs regulation. In the submission to the Tariff Review Taskforce a business noted that “It’s no great secret that the administration of customs is openly abused: misclassification, under-pricing of invoices subject to tariffs, over-pricing of nil-rated inputs and subsequent tax evasion are common place” (Tariff Review Report, 2003: 71). These problems are created by regulation that rewards rent-seeking activities: the solution is to remove such regulations. If this is not possible in the short term then the problem can be reduced significantly by lowering the rates of tariffs while reducing the number of tariff bands to minimise the opportunities for customs misclassification.

The high costs of utilities and transportation services also tax private sector activity. The government announced its privatisation strategy to induce greater competition in these sectors whilst lowering the burden of poorly performing state owned enterprises on the budget (see Duncan, 2001). Recently announced changes in policy relating to privatisation of state assets, however, have reduced the credibility of long-term commitments to deregulating the economy so as to induce greater private sector participation in sectors that to date have remained the domain of the state. Funding for public services such as basic healthcare and primary education should remain the responsibility of the state while their delivery could be competitively tendered out. Privatisation of state owned enterprises and particularly natural monopolies raises the need for regulatory supervision. The government is in the process of enacting legislation to outlaw anti-competitive practices such that privatised natural monopolies are restrained from abusing their newly acquired market power.

6 Conclusions

The economic recovery witnessed over the first six month of 2003 is welcome and long overdue given the falls in GDP over the preceding three years. Most of the recent growth in output can be attributed to favourable weather conditions combined with improvements in PNG's terms of trade. These favourable conditions cannot be assumed to last, thus the available window of opportunity has to be used to consolidate and build upon the recent gains. Macroeconomic conditions remain unfavourable for long term investment as the inflation rate and cost of credit remain high relative to those of PNG's trading partners and competitor nations within the developing world. The kina has stabilised and foreign reserves are returning to healthy levels: these improvements are due to an improvement in the current account. The favourable conditions will not last, however. The weakening of the US dollar, given that international commodity prices are mostly denominated in US\$, together with recovery in the global supply of cocoa, oil palm and vanilla could result in some weakening of

PNG's terms of trade over the medium term. It is therefore all the more urgent to improve the investor climate to ensure that the growth momentum is maintained over the medium term.

The prevailing unfavourable macroeconomic conditions in the form of high inflation and high interest rates on borrowings can be linked to the high level of debt of the public sector and continuing budget deficits that are being financed domestically, given the impasse on access to foreign funds. Public debt at around 70 percent of GDP (indeed much higher if contingent debt is factored in, and with nearly 70 percent of this debt being foreign) is high by developing country standards and must be brought down if interest rates and inflation are to be brought down. Debt service costs at some 20 percent of the recurrent budget is a considerable burden and one that crowds out expenditure on basic services. The economy is in all likelihood caught in a high debt and persistent deficit spiral. The government is making every effort to contain expenditures but most of the cuts to date have been in the development budget rather than in recurrent outlays. The 2004-budget emphasis on cuts in departmental expenditures accompanied with increased allocations for basic service delivery is welcome. Attempts to increase revenues at the local level via a head tax would be difficult given the costs of enforcing compliance: explicit use of user-pays could have been a better alternative. The risk in cutting developmental outlays is that it can diminish the productive potential of the economy. The economic recovery over the first half of 2003 has seen tax revenues increase and this may have alleviated some of the pressures for expenditure restraint, but the favourable conditions will not last unless private sector investment picks up.

The main policy initiatives that could be used to lower the cost of private enterprise include the following three. First, policy stability has to be restored such that private enterprise can plan with greater confidence about the direction of future policy. Contradictions in the form of protection provided to domestic industry while stressing export-led growth have to be avoided. Second, fiscal sustainability has to be restored if price stability and competitive

interest rates are to be achieved. Third, the public sector must focus its efforts on providing public goods while creating the conditions for the private sector to provide investment and employment. The emphasis within the 2003-2007 medium-term development strategy on public investments in basic health, primary education, maintenance of infrastructure, and facilitation of access to markets as the instruments for poverty reduction is indeed in this very spirit. The issue is whether action will be consistent with the rhetoric.

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