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## **Papua New Guinea: Recent Economic Developments**

This Recent Economic Developments report on Papua New Guinea was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with this member country. As such, the views expressed in this document are those of the staff team and do not necessarily reflect the views of the Government of Papua New Guinea or the Executive Board of the IMF.

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PAPUA NEW GUINEA

**Recent Economic Developments**

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Approved by the Asia and Pacific Department

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## I. OUTPUT AND PRICE DEVELOPMENTS<sup>1</sup>

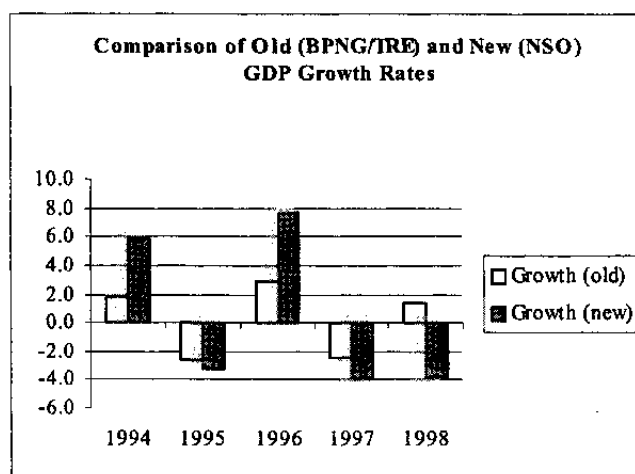
### A. Overview

1. **Papua New Guinea's (PNG) economy comprises a traditional (informal) and a modern (formal) sector.** Most of the labor force is engaged in subsistence or semi-subsistence agriculture within the traditional sector.<sup>2</sup> Capital-intensive mineral activities (mining and petroleum) and forestry play a key role in the modern sector, but provide limited employment opportunities.

2. **Trends in aggregate output are set mainly by developments in the agricultural and mineral sectors,** which account for nearly one-third and one-fifth of aggregate output. A substantial proportion of the formal nonagricultural and nonmineral economy (construction, manufacturing, electricity, and commercial activities) depends on the fortunes of the agriculture and mineral sectors. Thus, trends in mineral production and exogenous shocks (such as drought) are reflected in aggregate output and amplified through indirect effects on other sectors. For instance, the drought of 1997, which affected agricultural production and output in the two major mines, and a fall in oil production, were reflected in contractions of aggregate output of nearly 4 percent in both 1997 and 1998.

### B. National Income Accounts

3. **In July 2000, the PNG National Statistical Office (NSO) released a new set of national income accounts for the period 1993–98.** These estimates were prepared using the 1968 United Nations System of National Accounts. While GDP components were compiled on the basis of a “production approach,” an expenditure and income breakdown was also provided for the first time. Previously, in the absence of official national income statistics beyond 1993, the Treasury and the central bank, Bank of Papua New Guinea (BPNG), had prepared unofficial estimates of GDP for their internal use (such as budget preparation and financial programming).



<sup>1</sup>This chapter was prepared by Yougesh Khatri.

<sup>2</sup>A majority of the population live in rural areas, and while engaged in subsistence agriculture, they have successfully integrated cash crops (such as coffee, palm oil, cocoa, and coconut) into their farming and might thus be described as semi-subsistence farmers.

4. **The new GDP figures differ (in some years considerably) from those previously compiled by the Treasury and BPNG.** Most notably, the growth estimate for 1998 has changed significantly, moving from a modest expansion of real GDP to sizable contraction. There are major differences in the 1998 growth rates of the agricultural sector (which accounts for around 30 percent of GDP), manufacturing (around 8 percent of GDP), and construction (around 5 percent of GDP). For the period of the new GDP series (1993–98), the largest variations in growth rates between the new and old series occur in the construction sector, and to a lesser extent in the agriculture and mineral sectors.

### C. Sectoral Developments

#### Mineral sector

5. **The share of the mineral sector in GDP peaked at around 30 percent in 1993, and has since declined to around 20 percent.** The decline is related to falling oil reserves in Kutubu and to the impact of the 1997 drought on the two largest mines. The mineral sector also accounts for the majority of foreign equity investment (representing over 90 percent of new inward investment between 1994 and 1996).

6. **The mineral sector accounted for over 70 percent of merchandise exports in 1999.** Petroleum and gold exports have accounted for most mineral export earnings. Gold exports increased by 8.2 percent to 63 tonnes in 1999, compared to 58.2 tonnes in 1998. PNG has two major gold mines—Porgera in the Enga Highlands and Lihir located on an island off New Ireland—but also a number of other mines including Misima, Ok Tedi, and Tolukuma. Although production rose in 1997 with the opening of Lihir in May of that year, this increase was somewhat offset by the effects of the drought in 1997. With the full-year contribution of Lihir and the recovery from the drought, production increased over 30 percent in 1998. Output rose again in 1999 by over 8 percent, owing to the completion of an additional processing plant and higher ore grades. The f.o.b. price of gold fell by 6 percent in U.S. dollar terms, but increased in kina terms by 16 percent in 1999, as lower U.S. dollar prices were offset by a depreciation of the kina. The combined effect of higher kina prices for gold and higher production resulted in an increase in the kina value of gold exports of over 25 percent, while the U.S. dollar value of gold exports increased by only 2 percent.

7. **Petroleum exports increased by 9.3 percent to 30.6 million barrels in 1999.** Oil production began in mid-1992 when the Kutubu oil field (under a joint-venture company, Chevron Niugini) came on stream. Oil production gave a significant boost to the economy, but it is expected to decline sharply in the coming years with the depletion of Kutubu's reserves. Development of a second oil field, Gobe, began in early 1998, but output is expected to be well below Kutubu at its peak (although Gobe is also expected to have significant gas reserves). The higher output in 1999 was due to increased production at the Gobe Main and South East Gobe oil projects, which more than offset the fall in output at Kutubu. The kina price for oil exports increased by over 50 percent in 1999 which, combined with the higher output, resulted in an increase in export receipts of 70 percent in kina terms to K 1.4 billion in 1999 (or an increase of 38 percent in U.S. dollar terms).

8. **Copper exports increased substantially in both 1998 and 1999 after significant declines in the previous two years.** The closure of the Panguna mine on the island of Bougainville, due to secessionist troubles in 1989, left Ok Tedi as the country's main copper mine (although it also produces gold). After the closure of Panguna, copper production fell through to 1992, after which production increased modestly until 1995. In 1996, a decline in quality of copper ore and weather-related difficulties resulted in a sharp decline in output of 40 percent. A similar decline in output in 1997 related to the drought caused the mine to close for much of the year (the Fly River which had been used to transport the copper was unusable because of low water levels). The increase in production of around 40 percent in 1998 and 1999 was from a low base in 1997, and reflects the return of Ok Tedi to more normal production combined with the mining of higher grade ore.

### **Agricultural sector**

9. **The agricultural sector contributes around 30 percent to GDP and consists of smallholder and plantation-based export crops.** The agricultural sector remains the main source of employment and constitutes the principal livelihood of around 85 percent of the population. While agricultural export data are generally reliable, there is little direct information available on subsistence production in agriculture. The main cash crops (grown by both large estates, smallholders, and semi-subsistence farms) are coffee and palm oil, which accounted for over 60 percent of non-log-related agricultural exports in 1999. Other cash crops include cocoa, copra, copra oil, tea, and rubber which accounted for over 20 percent of non-log-related agricultural exports. Forestry exports, which grew rapidly in the early 1990s and accounted for around 55 percent of agricultural exports (including logs) in 1994, have declined in importance in recent years to around 18 percent of agricultural exports by 1999. Price developments have been mixed, with decreases in the U.S. dollar prices of cocoa, coffee, and rubber of around 25 percent and tea of around 34 percent, being offset by increases in the dollar prices of copra (27 percent), logs (9 percent) and marine products (over 100 percent). In kina terms, the weighted average prices in the agricultural/ fisheries sectors increased marginally in 1999.

10. **The volume of coffee exports declined by 5.1 percent to 79,200 tonnes in 1999.** The decline was attributed to the cyclical nature of the commodity, where high production is followed by low production as a result of cutting and pruning of coffee trees. With an increase in supply in the world market (a bumper crop in Brazil), the average export price of coffee declined in 1999 by 7.7 percent to K 5, 266 per tonne (or by 26 percent in U.S. dollar terms). The combined decreases in export prices and volume resulted in a decline in export receipts of over 12 percent to K 417.1 million in 1999 (or a decline of 30 percent in U.S. dollar terms to \$163 million).

11. **The volume of palm oil exports increased by 19 percent to 253,800 tonnes in 1999.** The increasing trend in palm oil production (interrupted by the drought in 1997) has been encouraged by rising prices brought about by buoyant demand in Asia. The price of palm oil increased particularly dramatically in 1995 (by 127 percent) and in 1998 (by 70 percent), which is reflected in export values for those years. While extraction rates fell in

1994 and 1995 due to the age of the existing stock of trees, substantial planting in the mid-1990s (together with a recovery of the trees from the drought) is now contributing to increases in production.

12. **Copra production increased by 9.3 percent to 63,500 tonnes in 1999 while copra oil production declined by 5.5 percent to 50,300 tonnes.** The increase in copra production was due to the recovery from the drought in the North Solomon province combined with a favorable world price which increased by 27 percent in U.S. dollar terms in 1999 (or 57 percent in kina terms reflecting a higher world price and the kina depreciation). The Copra Marketing Board (CMB) buys most of the copra production and allocates it between the export market and sales to the domestic copra mills. The decline in copra oil production reflects the lower copra volume sold to the two domestic copra mills for processing because of the CMB's contractual obligations to supply external buyers and the substantially higher kina price of copra in 1999.

13. **Cocoa output recovered from the drought in 1999.** The increase took place in spite of a decline in the export price of cocoa, and permitted an increase in export volume, which resulted in an increase in export receipts of about 3½ percent.

14. **The volume of log exports increased by 23 percent to 1,313 thousand cubic meters in 1999.** Log production expanded rapidly between 1992 and 1994 and nearly doubled between 1990 and 1994, as world market supplies from Asian neighbors tightened in the early 1990s and prices in kina (U.S. dollar) terms increased by around 150 (136) percent. Log production slowed in the mid-1990s as the government introduced stricter guidelines on logging to put the harvesting rate on a sustainable path. The increase in 1999 log production came after more than a 50 percent decline in 1998 (when U.S. dollar export prices fell by over 40 percent). Prices in kina (U.S. dollar) terms rose by 35 (9) percent in 1999, as a result in part of higher demand from Asia and a ban on the harvesting in large areas of China.

#### **Other sectors**

15. **The other sectors (nonagricultural, nonmineral) account for less than half of GDP, with the major ones being manufacturing, wholesale, and retail trade and community, social, and personal services (mainly government).** The fortunes of these other sectors are linked closely to those of agriculture and minerals, both directly (such as sawmills and other industries dependent on processing agricultural or mineral inputs) and indirectly (through the income effect on domestic demand).

16. **The manufacturing sector consists of processing of agricultural products and light manufacturing.** Growth in the manufacturing sector peaked in 1996 at 15.5 percent. In 1999, however, the manufacturing sector contracted by 3 percent, perhaps as a result of the uncertainties related to increasing inflation and the large depreciation of the kina.

17. **Construction is highly dependent on the mineral sector and government infrastructure projects.** In 1995, all restrictions on foreign investment in the construction

sector were removed. The sharp growth in the construction sector in 1996 (of over 70 percent) reflects activity at the Lihir mine.

#### **D. Prices and Exchange Rates**

18. **Prices are closely linked to the exchange rate.** Under the “hard kina” policy of a fixed exchange rate regime up until 1994, inflation remained stable, averaging around 5 percent per annum in the decade to 1994. A depreciation of nearly 17 percent against the U.S. dollar in 1994 followed the move to a floating exchange, and the inflation rate shot up to over 12 percent (year-on-year) in the first quarter of 1995 and peaked at over 23 percent in the third quarter of 1995. As the exchange rate stabilized through to 1997, inflation again moderated, but following another longer period of depreciation starting in October 1998, inflation picked up again, reaching 21.8 percent by end-1998. The introduction of value-added tax (VAT) (at 10 percent) in July 1999 added significantly to consumer price increases in that year and inflation averaged nearly 15 percent.

### **II. PUBLIC SECTOR DEVELOPMENTS<sup>3</sup>**

19. This chapter discusses the recent evolution of the central government finances, key developments in tax and expenditure policies, outlines the planned public sector reform program, and describes the condition of pension funds.

#### **A. Institutional Overview**

20. The public sector comprises the central government, provincial and local governments, statutory authorities, and public enterprises. Statutory authorities are government-owned bodies engaged in education and research; economic development; agricultural research, extension, and marketing; harbor management; and utility services. Public enterprises include the national airline, the postal service and telecommunication organizations, and Finance Pacific, a major financial conglomerate which includes the country’s largest bank, Papua New Guinea Banking Corporation (PNGBC). Coverage of the public finance statistics is limited to the central government budget. Most of the provinces however, are largely financed by central government transfers.

#### **B. The Central Government Budget in the Late 1990s**

##### **Developments in 1998**

21. **Public finances remained weak in 1998, due in part to the effects of a drought and the Asian crisis.** Tax revenue from mining and petroleum fell sharply as the drought hindered mining and logging operations. Log exports were also affected by sluggish world demand. Additional pressures on the budget were triggered by tax cuts intended to counter

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<sup>3</sup>This chapter was prepared by Christiane L. Roehler.



recessionary trends. Faced with a severe decline in revenue, the government brought forward profit transfers from the central bank by negotiating lower interest rates for the government securities managed by BPNG. In addition, the government attempted to address the difficult fiscal situation through expenditure cuts. The 1998 budget was only passed in March, and appropriations for goods and services were severely cut in nominal terms. Also, the release of warrants was backloaded during the course of the year, creating further pressures on departments. Notwithstanding such efforts, the government required substantial borrowing from the central bank, breaching the statutory credit limits. In addition, the government accumulated arrears and other outstanding obligations.

### **Developments in 1999**

22. **The state of government finances worsened during the first half of 1999.** In spite of the intense fiscal pressures, the government increased transfers to local governments and introduced a costly Rural Development Program, which placed resources at the disposal of parliamentarians. The cash flow difficulties of the government intensified as financing opportunities (from official and commercial sources) became increasingly elusive. In early July, the government of Prime Minister Skate resigned ahead of an expected vote of no-confidence.

23. **The new government of Prime Minister Morauta adopted a supplemental budget in August 1999 aimed at containing fiscal pressures.** In addition, a VAT (at a rate of 10 percent) was introduced in July 1999, replacing sales taxes and permitting a reform of the tariff system (see below). On the expenditure side, the government cut development spending and instituted a general hiring freeze in November 1999, which is to remain in place until a general review of the civil service and staffing levels is completed.

24. **Despite the efforts of the new administration, the fiscal deficit widened to 3½ percent of GDP in 1999.** External financial support resumed during the second half of the year, following the new government's steps to implement a program of adjustment and reform. A \$80 million swap arrangement with Australia, and a loan from the Asian Development Bank (AsDB) were used to reduce borrowing from the central bank toward the end of the year.

### **Developments through mid-2000**

25. **The 2000 budget aims at reducing the fiscal deficit (including the clearance of arrears) to under 2 percent of GDP.** The budget was framed around the following parameters:

- Tax revenue in relation to GDP was expected to increase moderately, reflecting mainly the full-year effect of the tax measures taken in August 1999.

- Factors behind the budgeted wage bill included a projected 5 percent general wage increase and provisions for hiring in priority areas, primarily in health and the Internal Revenue Commission.
- Allocations for goods and services for nonpriority departments were frozen in nominal terms; priority departments received some increase in appropriations for special needs.
- Grants and other nonwage transfers to provinces remained constant in nominal terms.

26. **The fiscal balance turned to a surplus in the first half of 2000.** Tax revenue (both from mineral and nonmineral activities) grew at a faster pace than expected, in part due to higher mineral prices than envisaged in the budget. At the same time, control was maintained over the wage bill (Box 1) and noninterest recurrent expenditure. In contrast, there was a shortfall in nontax revenue, and interest expenditure turned out to be higher as domestic interest rates remained high in the context of a tight monetary policy.

### C. Special Issues

#### Tax policy

27. **In recent years, the government has intensified efforts to maintain an adequate tax ratio.** A large share of tax revenue has traditionally been collected from mineral activities. However, mineral sector taxes have oscillated greatly due to price fluctuations and other shocks. In addition, tax revenue from oil activities has tended to decline with the depletion of the Kutubu oil reserves. To offset this trend, the government raised tax rates applicable to nonmineral activities. As a result, nonmineral tax revenue increased from 16.3 percent of GDP in 1995 to 18.2 percent of GDP in 1999, and is projected at around 19 percent of GDP in 2000.

28. **In July 1999 after a lengthy delay and intense political resistance, VAT was introduced at a rate of 10 percent.** The introduction of VAT broadened the tax base (Box 2) and associated changes in the tax and tariff structures improved the efficiency of the tax system. The VAT replaced cascading provincial sales taxes (charged at the rate of 3 percent). The introduction of VAT also permitted the elimination of the basic import tariff of 11 percent, which has prepared the ground for a phased reduction in tariffs (expected to be completed in 2006) and a rationalization of the tariff structure. In addition, a mining levy was introduced to capture windfall gains accruing to mining companies from the removal of the basic import tariff.

29. **Under the law, VAT collections must be shared with provincial governments,** which are entitled to 30 percent of net VAT and mining tax collections. The share of each of the provinces for 1999 and 2000 was set at a minimum of their previous sales tax collection, topped up by a portion of the remaining overall 30 percent share. It is expected that in 2000 provinces will receive higher revenues than they previously collected in sales taxes. From

### **Box 1. Papua New Guinea: Expenditure Control for Wages and Salaries**

**Wage bill overruns have been a long-standing problem of expenditure control.** These overruns have stemmed in part from the limited availability of information in a system of highly decentralized responsibilities for public sector human resource management.

- Budget ceilings for total wages and salaries are set by detailed appropriations for departments.
- Within the government, the Department of Personnel Management (DPM) determines the structure of the civil service, i.e., the number of positions, position grades, required qualifications, and the like. Each position has a position number. DPM has to approve hiring of new staff, and no person can come onto the payroll without a staff number issued by DPM.
- The Department of Treasury and Finance has overall responsibility for financial control of the wage bill, and centrally processes all payroll payments.
- However, responsibility for staying within the appropriations for wages and salaries, and hiring of most staff rests with the individual departments, provinces, and statutory authorities.
- There are special processes for hiring and determining compensation for heads of departments and statutory authorities, as well as for the compensation of members of legislative assemblies, constitutional office-holders, and some other senior government officials.

**Some of the normal safeguards against expenditure overruns are not in place for the wage bill.** According to the Public Finances (Management) Act, no expenditure can be made without warrant authority. However, the payroll is run independently from the budgeting system, and procedurally payroll payments are automatically warranted. There often is some delay before payroll payments are entered into the budgeting system and can be monitored for budget execution purposes. In addition, not all wages and salaries are processed through the payroll.

**Communication between departments, payroll staff, and budget monitoring staff in treasury appears to be weak.** Although each position has a position number, and every employee on the payroll must have a staff number, it is not currently possible to determine which employee is being paid for which position. Further, DPM has a staff of only around 100, all of which are based in Port Moresby, and are not able to carry out inspection functions in departments and in the provinces.

**Some steps are being taken to improve control of the wage bill.** In early 2000, some previously separately executed payrolls were merged with the central finance payroll, leading to more standardized procedures for bringing people onto and off the payroll. As specified in the Public Sector Reform Program that was endorsed by the National Executive Council in August, during the next year the integration of human resources management and payroll systems will be pursued, as well as the verification of human resources and payroll data.

## **Box 2. Papua New Guinea: The Introduction and Administration of the VAT**

**The value-added tax (VAT), modeled on New Zealand's Goods and Services Tax, was introduced at the uniform tax rate of 10 percent, with few exemptions and exports zero-rated.** Exempted goods and services are mainly medical services, financial services, education services and supplies, fine metals, unprocessed logs, and public transportation fees. The VAT is levied on all imported goods irrespective of importer, with the exception of imports for aid projects and diplomatic missions. Refunds are primarily paid to the mining industry which exports virtually all its output, and to aid organizations for VAT paid on domestic purchases for registered zero-rated aid projects. Some transitional rules are in place, including on input credits for stocks purchased before July 1999.

**All businesses with an expected turnover in excess of K 100,000 (\$38,000) must register for collecting VAT;** registration for other businesses is voluntary. It is expected that many businesses below the threshold will register to claim the credits.

**The International Revenue Commission (IRC) has been charged with administering VAT, replacing previous provincial sales tax collection agencies.** As the IRC also has responsibility for customs administration, collection of VAT on imports has proceeded well. In contrast, there have been delays in the establishment of provincial IRC offices, partly because of the unavailability of sufficient funding. In addition, VAT administration within the IRC is still affected by insufficient staffing, including for conducting tax audits.<sup>1</sup>

**Information on the number of registered businesses and tax returns underlines the need to increase staff for inspections and audits.** As of March 2000, 6,200 VAT tax payers were registered, but only about one-fourth of the associated number of returns were lodged, and most of these returns were for refunds. There are 10,000 businesses registered for tax purposes, and thus it is likely that the number of businesses required to register for VAT is also higher. The IRC is investigating whether all suppliers to the mining industry are registered. The significant revenues generated from the few audits conducted so far suggests that compliance is still low.

**Administration of the tax is complicated by rules designed to track VAT revenue collected in each province,** and to ensure that sufficient funds are available to pay the provincial shares of the tax, and make refunds. Businesses are required to attribute their VAT to the provinces in which they do business.

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<sup>1</sup>The basic computer systems to administer VAT were completed in early 2000, and as of mid-April all tax returns until end-March were lodged. However, there have been delays in the development of a system for the selection of audits, including because of a lack of staff with computer skills.

2001 onward, the share of each province will be linked to collections in that province to provide an incentive to improve administration.

30. **Introduction of VAT required improvements in administration, including a better tax registry.** A resulting increase in the number of businesses registered with the Internal Revenue Commission (IRC) is expected to help the administration of other taxes. At the same time, there have been certain start-up difficulties. Collections are estimated to have fallen below potential and there have been delays in paying refunds. Progress is being made, however, in redressing these problems and collections are expected to increase in 2001-02.

### **Provincial budgets and rural development**

31. **The government has attempted to improve service delivery (of education, health, infrastructure, law and order, and agricultural extension) in the provinces and districts.** Attempts have focused on devolution of responsibilities and decisions to the provinces, coupled with an increase in resources to meet these responsibilities. However, so far all these programs had only limited success. Revenue of provincial government is expected to increase following the recent introduction of VAT. It is expected that VAT and mining levy revenues distributed to the provinces will exceed the previous sales tax revenue.

32. **Government transfers to provincial governments are supported by a strong political constituency, reflecting the substantial power of parliamentarians.** Members of parliament (MPs) directly represent either one of 20 provinces or one of the 89 districts within a province. Any member of the National Executive Council (Cabinet), i.e., the executive at the national level, must be an MP. By law, MPs also hold a number of offices at the provincial level. Every MP is also a member of his or her provincial assembly. In addition the head of the provincial executive, the governor, must be an MP. The Joint Provincial Planning and Budget Priority Committees, and the Joint District Planning and Budget Priority Committees (JDPBPC), chaired by the MP representing the district, have key functions in determining expenditure priorities.

33. **In 1999 grants to fund selected provincial projects were increased and a new rural development program (RDP) introduced.** These additional resources were to be administered under a newly established Office of Rural Development, but spending decisions were to be made either directly by the MP or the respective JDPBPC.

34. **In early 2000, new guidelines for spending under the RDP were developed with the assistance of the World Bank.** These guidelines are intended to ensure the efficiency and effectiveness of spending under the RDP, by instituting stringent project evaluation, approval, tendering, reporting, and monitoring requirements. The guidelines also require that expenditures be aligned with district, provincial, and national expenditure priorities as exhibited in medium-term development plans. Once experience with these guidelines has been gained, it is hoped that the RDP can become a model framework for enhancing the efficiency and effectiveness of spending in rural areas, and a vehicle for integrating provincial expenditures with nationwide development requirements.

### **Public Sector Reform Program (PSRP)**

**35. Reform of the public sector is a high priority for the current government.**

Commitment to such reform was made as part of both the Stand-By Arrangement and the World Bank's Structural Adjustment Loan. The PSRP has been developed by a Public Sector Reform Task Force, chaired by the Chief Secretary, in consultation with heads of departments and provincial authorities, and with assistance from the World Bank, the AsDB, and APEC. To avoid the poor outcomes of similar past programs, the plan emphasizes domestic ownership: participation of stakeholders, public and political support for the design and implementation of the program, and coordination with the international donor community.

**36. The PSRP has nine principal objectives:**

- Strengthen policy, planning, and decision-making as well as coordination between political institutions and state services (public services, constitutional, and statutory organizations).
- Streamline functions, organization structures, and resource management.
- Establish and align cost of government operations with available funding and development priorities.
- Improve efficiency and accountability.
- Establish a stable, professional, and performance-oriented public service.
- Improve reporting systems and database linkages at both agency and government-wide levels.
- Rationalize facilities to better support sector operations.
- Improve partnership and cooperation between the public sector and churches, NGOs, and the private sector.
- Ensure probity, integrity, and respect for the law.

**37. Thirty-six strategies with associated programs have been identified to achieve these objectives.** Costing for the programs will be developed in the next few months and incorporated into the 2001 budget. Technical assistance will be forthcoming from Australia, the AsDB, and the World Bank.

**38. Overall political responsibility and leadership for the implementation of the PSRP is being provided by the Cabinet's National Planning Committee, while the Central Agencies Coordinating Committee (CACC), chaired by the Chief Secretary, will be**

responsible for day-to-day implementation. To strengthen capacity for the reform process, a Public Sector Reform Management Unit has been established in the Department of the Prime Minister. To involve the community in the reform process, the Prime Minister will appoint a Public Sector Reform Advisory Group consisting of representatives of provinces, churches, trade unions, and research institutions.

39. **Initial steps to move the PSRP ahead have already been taken.** Functional expenditure reviews for the Departments of Finance and Treasury, Personnel Management, Defense, Foreign Affairs, Fisheries, and the Office of the Prime Minister will be completed by end-2000. Reviews of other core departments will be undertaken by early 2001. An audit of public sector staffing will be carried out as part of the 2001 budgetary process.

## **Pension funds**

### *Overview*

40. **Independent defined-contribution provident funds are the main institutions that provide social benefits.** These funds primarily provide lump-sum payments at retirement, but also permit withdrawal of funds in case of invalidity or unemployment. Upon death of the beneficiary, balances in the provident fund accounts are paid to the estate. Contributions to the applicable fund are mandatory if the relevant employment criteria are met.

41. **Recent audits of the two major funds revealed that their financial performance was poor,** apparently as a result of major governance problems and inadequate supervision which, under current legislation, is exercised by the board of trustees.

42. **The government is attaching high priority to resolving these problems.** In particular, the government intends to enact legislation designating the central bank as the supervisor of the industry. In addition, the government has recently appointed new members of the board of the National Provident Fund (NPF) and instituted an independent commission of inquiry. The commission is conducting an investigation of management decisions, ascertaining responsibilities for past improprieties, and preparing recommendations. The remainder of this section describes the current institutions and discusses the major funds and their recent financial performance.

43. The two major provident funds are:

- The NPF for employees of private sector companies with 20 or more employees; and
- The Public Officers' Superannuation Fund (POSF) for public servants.

There are smaller funds for special groups, such as:

- The Defense Retirement Fund;

- The Finance Pacific Superannuation Fund, which may have been established without the required authorization; and
- Some company funds in the mining industry.

#### *National Provident Fund*

44. **The NPF is administered by a managing director who is appointed by the Prime Minister.** The board of trustees has members representing the government (including the Secretary of the Department of Finance and Treasury), the employers, and the employees. The chairman of the board is appointed by the National Executive Council. The NPF is required to submit an audited annual statement to parliament. Mandatory contributions to the NPF are 5 percent of salary for employees, and 7 percent for employers. Every employee—the member—has an individual account to which contributions and investment earnings are credited. The value of the account determines the retirement benefits, which can be drawn at age 55.

45. **The NPF incurred losses of K 153 million (1.5 percent of GDP) during 1998 and 1999, equivalent to about 60 percent of the current value of member accounts of K 249 million.** The losses were brought about by unsound investments, some of which were leveraged by illegal foreign and domestic debt financing breaching investment guidelines. There were significant deficiencies in corporate governance, internal controls, and operational efficiency. This is the third time since the NPF was established in 1980 that it faces acute financial difficulties.

46. Poor investment decisions are evidenced by:

- Losses of K 62 million were incurred in 1999 on the sale of resource stocks, which reportedly were acquired in 1996 to support mining development;
- Illiquid long-term loans to the government to fund the Poreporena Freeway; and
- Construction of an office tower in Port Moresby, which now is valued well below cost.

47. **To address acute cash flow difficulties, a new general manager appointed in 1999 embarked on a debt reduction strategy, and unwound some of the investments.** The poor financial state of the fund was publicly revealed in March 2000, when it was proposed to write down members' accounts by 50 percent to bring them in line with current market values of the assets. Interest groups of employers and employees challenged this proposal in court. No court decision has been made yet.

#### *Public Officers' Superannuation Fund*

48. **The POSF Act came into force in 1991, repealing previous superannuation and retirement benefit legislation.** Mandatory contributions by public servants into POSF are 6



percent of salary. Employee contributions are deducted from the paycheck and transferred to POSF. Every employee has an individual account to which the employee contribution and any interest is credited. Interest calculations are based on the beginning of the year balance, rather than the average balance of the year. The government's contribution is deferred until benefits become payable at retirement or invalidity. The government's contribution is 1.4 times the accumulated employee's contribution including interest.

49. **The government appoints the managing director of the POSF and the board of trustees.** The board consists of the managing director, three government representatives (including the Secretary of the Department of Finance and Treasury), and three employee representatives. Audited financial statements must be presented to parliament each year. The retirement age is 55, but benefits can be taken after 25 years of service. Benefits can be taken as a lump-sum, an annuity, or a mix of both. Special rules apply to the police force. There are transition rules with defined-benefit components for public servants covered under the previous legislation, with any shortfalls between the calculated lump-sum benefit value and member's account value covered by the government. The POSF also covers its members with group life and invalidity insurance, with benefits paid through POSF, when relevant.

50. **During the 1990s the POSF earned a negative real rate of return, and less than the interest rate on savings accounts.** Reasons for the poor performance include investment guidelines—issued by the government—that set social policy goals, and deficiencies in governance and auditing. Returns on investment have also been affected by delayed payments from some government agencies.

### III. FINANCIAL SECTOR DEVELOPMENTS<sup>4</sup>

51. This chapter discusses key institutional and operational aspects of the Bank of Papua New Guinea (BPNG) following recent passage of the new Central Banking Act (CBA); instruments of monetary policy; and monetary policy and developments in 1999 and 2000.

#### A. Operation of the Bank of Papua New Guinea Under the Central Banking Act

52. The new CBA, which was passed in late March 2000, sets the following objectives for the central bank:

- To formulate and implement monetary policy with a view to achieving and maintaining price stability;
- To formulate financial and prudential standards to ensure stability of the financial system; and

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<sup>4</sup>This chapter was prepared by Geoffrey Oestreicher and Yougesh Khatri.

- To promote an efficient payments system.

53. The CBA also gives the BPNG a mandate to promote growth, but this objective is subordinated to that of price stability.

54. **The CBA grants the central bank considerable autonomy.** The Governor will now be appointed by the head of state for a set term of five to seven years, and can only be dismissed according to a transparent set of guidelines linked to performance. The Governor has sole responsibility for the formulation and conduct of monetary policy, including discretion in the choice of instruments, and also for the regulation of the financial system. Accountability has also been increased, as the bank is required to publish a biannual Monetary Policy Statement, with the first such statement published on July 14, 2000. The government can also request that an external audit be conducted. In addition, a special unit in the Governor's office has been charged with the implementation of operational changes (such as the new secrecy requirements—see Part XI of the CBA—and the review and update of the code of conduct).

55. **The new CBA mandates changes in the composition and responsibilities of the Board of Directors.** The Board is responsible for determining policies of the central bank other than monetary policy and regulation of the financial system, which are the responsibility of the Governor.<sup>5</sup> The Board will consist of a minimum of seven and a maximum of eleven members as follows: the Governor of the central bank; up to two Deputy Governors; up to three persons appointed by the Head of State; and five ex-officio members (the head of the PNG Council of Churches, the President of the PNG Chamber of Commerce, the President of the PNG Trade Union Congress, the President of the PNG Institute of Accountants, and the Chairman of the Securities Commission). The Board is required to meet at least four times a year and the Governor is required to submit to the Minister of Finance, every three months, a report on the proceedings of the Board meeting.

## **B. Instruments of Monetary Policy**

56. **The tools available to the central bank for the conduct of monetary policy are:** (i) **weekly auctions of treasury bills;** (ii) **weekly auctions of very short-term deposits at the central bank (the kina auction);** and (iii) **changes in the reserve and liquid asset requirements.** Until mid-1999, the BPNG carried out monetary policy through a mix of direct and indirect instruments, with direct instruments, notably changes in reserve requirements, predominating in recent years. However, since mid-1999, the bank has relied

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<sup>5</sup>The board will focus on administration, ensuring that statutory requirements of the central bank are fulfilled.

solely on indirect instruments to influence the developments of monetary aggregates and liquidity conditions.<sup>6</sup>

- **Treasury bill auctions** (held every Wednesday, with delivery on Friday) facilitate government borrowing, including to roll over maturing debt. Although there is no prohibition on secondary sales, in practice, agents tend to hold bills until maturity. The amount auctioned is announced in advance by the central bank, which then accepts the highest bids made until the desired amount is secured. The major players in the auction are commercial banks, but participation is simply subject to the posting of a deposit, with the minimum bid being K 100,000.
- **The Kina auction** was introduced in May 1995 to replace the discount facility.<sup>7</sup> The auction is held every Monday and is open only to commercial banks. The auction focuses on short-term liquidity management, helping to fine tune the liquidity outcome obtained from the treasury bill auction. The auction removes or injects liquidity by accepting deposits or selling kina. The interest rate is determined by the market through competitive tender.<sup>8</sup> Kina deposits are part of the Exchange Settlement Accounts (ESAs), which are accounts of the commercial banks at the central bank used for interbank settlements. These previously earned an interest rate that was used as a tool of monetary policy. Now, however, interest is not paid on the ESA balances except on that part relating to the kina auction.
- The minimum liquid asset ratio (MLAR) requires commercial banks to hold a certain proportion of their assets in liquid form (cash, deposits with BPNG, or treasury bills). The MLAR was, until the early 1990s, the main tool of monetary policy, although it was also used extensively in 1998 and 1999.
- The cash reserve requirement (CRR) was introduced in August 1998 and requires commercial banks to hold a fraction of their deposits and prescribed liabilities as a

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<sup>6</sup>While central bank intervention in the foreign exchange market affects monetary conditions, it is conducted primarily for short-term smoothing of exchange rate volatility, and not as an instrument of monetary policy.

<sup>7</sup>The discount facility allowed banks to borrow from the central bank at a discount rate (set by the central bank) up to a quota (based on bank deposit levels) for periods of between 7 and 90 days. The period was reduced to 28 days in 1991 and the discount rate was kept above the market rate. This facility has not been in operation since 1995.

<sup>8</sup>The central bank introduced on June 8, 1999 a kina deposit facility (KDF), with the discount rate set by the central bank and volume determined by market participants. It was abolished on September 17, 1999 because it was felt that the market was too shallow for such a discount facility, with big changes in interest rates required to effect the desired volumes.

nonremunerated deposit at the central bank. Cash in vaults does not qualify as part of the CRR.

- A punitive interest rate of 36.5 percent is charged for nonobservance of the MLAR and CRR as well as the limits on overdrafts.
- Liquidity conditions are also affected by the operation of the **tap facility**. Under this facility, the central bank undertakes to sell treasury bills from its own portfolio to participants at a yield of 1 percent below the weighted average rate obtained for the relevant maturity in the latest auction<sup>9</sup>. The tap facility was introduced last year to help reduce the differential between deposit and lending rates. The facility may be accessed by anyone other than commercial banks or nonbank financial institutions with a minimum purchase of K 10,000.

### **C. Formulation and Conduct of Monetary Policy**

57. **The BPNG currently formulates monetary policy through a reserve money program.** Operationally, the BPNG effectively targets commercial bank reserves (particularly ESA balances), as changes in currency in circulation and cash in vaults are slow to take place and CRR levels are predictable.

58. **The main instrument used to reach this target is the weekly treasury bill auction.** In deciding on the amount of treasury bills to offer each Wednesday, the BPNG takes into account the projected cash operations of the government, the anticipated behavior of agents in the tap facility, and its own projected intervention in the foreign exchange market. It obtains details of the government's weekly financing requirements through Monday morning meetings of the Public Debt Committee<sup>10</sup> and maintains contact with the major players in the tap facility and the foreign exchange market. The results of the treasury bill auction become effective on the following Friday when settlement occurs, and liquidity conditions are fine-tuned the following Monday through use of the kina auction.

### **D. Recent Monetary Developments**

#### **Monetary developments in 1998–99**

59. **From 1998 to September 1999, monetary policy was aimed at ensuring adequate financing for the government's deficit, rather than at addressing growing inflationary and**

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<sup>9</sup>Previously, the rate paid in the tap was the weighted average rate obtained for the relevant maturity bill in the latest auction. It was reduced in order to prevent moral hazard and financial loss to the central bank.

<sup>10</sup>Composed of staff of the Treasury and Finance Department, the Planning Department, and the BPNG.

exchange rate pressures. With the central bank contributing to the financing of the fiscal deficit, net domestic assets of the banking system increased substantially over this period. Broad money grew at an annual rate of 9 percent in 1999.

**60. Changes in the MLAR and moral suasion were used by the central bank to limit the withdrawal of commercial banks from government debt.** To this end, following a brief experiment with the elimination of the MLAR during August 1998–February 1999 (concurrent with an increase in CRR from 5 percent to 10 percent), the BPNG increased the value of MLAR from zero in February 1999 to 15 percent in March, 20 percent in June, and then to 25 percent in September 1999 (Table 1).<sup>11</sup> As a result of these actions, the treasury bill rate (which had risen from 24 percent in May 1999, to 28 percent in late August) declined to around 20 percent by end-1999, while at the same time the stock of treasury bills held by commercial banks rose somewhat.

#### **Monetary developments in 2000**

**61. Monetary developments in 2000 have been influenced by the adoption of a sounder fiscal policy and the resumption of foreign financial support.** In December 1999, financial support from Australia was resumed with a \$80 million swap from the Reserve Bank of Australia, which helped rebuild the stock of international reserves. In January, the central bank significantly tightened monetary policy, selling treasury bills to remove the liquidity overhang that had been built up over the previous year. As a result, reserve money fell by over 25 percent between end-1999 and mid-2000.

**62. Private sector confidence improved following the announcement of the arrangement with the Fund in March 2000.** Capital inflows reversed, the exchange rate appreciated, and reserve levels rose strongly. Bank credit to the private sector in the first quarter increased by K 45.5 million (compared to a decline of K 114.5 million in the corresponding quarter of 1999), and the spread between lending and deposit rates narrowed significantly.

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<sup>11</sup>Concurrent with this, the CRR was reduced to 5 percent in March 1999.

Papua New Guinea: Chronology of Changes in Monetary Policy Instruments

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Date	Event
August 17, 1998	CRR introduced at 10 percent and MLAR reduced to zero
December 31, 1998	CRR reduced to zero/temporarily suspended
January 12, 1999	CRR abolished
January 15, 1999	CRR reintroduced at 10 percent
March 26, 1999	CRR reduced from 10 percent to 5 percent
March 29, 1999	MLAR increased from 0 percent to 15 percent
June 8, 1999	Standing (Deposit) Facility (KDF) introduced
June 10, 1999	MLAR increased from 15 percent to 20 percent and CRR excluded from the definition of liquid assets
September 17, 1999	MLAR increased from 20 percent to 25 percent and KDF discontinued
At end-September 2000	The CRR has remained at 5 percent and the MLAR at 25 percent (implying a total requirement of 30 percent) since September 17, 1999

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**IV. EXTERNAL SECTOR DEVELOPMENTS<sup>12</sup>**

63. This chapter discusses the nature and operation of the foreign exchange market, key developments in the balance of payments, and recent external debt trends.

**Foreign exchange market**

64. **The exchange rate is determined in the interbank market which comprises authorized primary dealers and the BPNG acting as broker.** The largest authorized dealers include ANZ Banking Group, Bank of South Pacific, Indosuez Niugini Bank, PNGBC, Westpac Banking, and Malayan Banking. Since 1998, BPNG has allowed nonbank financial institutions to participate in the interbank market, while corporations and individuals may offer foreign currency services, subject to a licensing requirement. To date, no new participants have been licensed under the new rules, and the licensed commercial banks remain the only authorized foreign exchange dealers conducting a full range of foreign exchange transactions.

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<sup>12</sup>This chapter was prepared by Yuri Sobolev.

65. **The U.S. dollar is the only foreign currency traded against the kina in the interbank market, with rates quoted in kina.** The minimum bid is K 1 million and bids, offers, rates, and amount dealt are posted by the BPNG on a Reuters screen accessible only by banks. The interbank market is rather thin with daily volume of transactions varying from zero to K 50 million. The BPNG intervenes in the interbank market to smooth short-term volatility and seasonal fluctuations.

66. **Foreign exchange control is administered by BPNG under the CBA.** Authorized dealers may approve applications for foreign exchange transactions in the amount up to K 500,000 without seeking authorization from BPNG. Applications for import transactions that are not subject to import licensing require presentation of commercial invoices, shipping documents, and customs forms. Foreign exchange transactions entailing payment for invisibles, current transfer, or outward capital investment in the amount up to K 50,000 require submitting an exchange control form certifying that the payment or transfer is made out of profits or that the entity effecting the transaction will remain viable if the payment or transfer is made out of capital or retained earnings. Foreign exchange transactions exceeding K 50,000 but less than K 500,000 require a prior clearance from the tax authorities (a certification that no taxes are owed). Payments and transfers exceeding the equivalent of K 500,000, except debt-service payments, must be referred to BPNG for approval. Approval is granted if BPNG determines that the proposed transaction is of a bona fide nature.

67. **Residents are required to repatriate foreign exchange receipts within six months of export,** and are not permitted to retain foreign exchange earnings from any source without approval of the BPNG. Income from outward capital investment must be brought onshore as received.

#### **Recent developments in the foreign exchange market**

68. **Drought, the Asian crisis, and lax macroeconomic policies contributed to a weakening of the kina from 1997 to 1999.** The effects of lower export earnings in the wake of the Asian crisis and of the severe drought of 1997 were compounded by the relaxation of financial policies during 1998 and the first half of 1999. As confidence deteriorated, private capital outflows intensified, and the overall balance of payments remained in large deficit. Consequently, gross international reserves fell from 3.3 months of nonmining import cover at end-1997 to 0.8 months by mid-1999. Despite a large-scale intervention in the foreign exchange market of almost \$300 million over the same period, the kina lost a third of its value against the U.S. dollar from end-1997 to mid-1999, just before the new government took office.

69. **Pressures in the exchange market eased following the new government's commitment to policy reform and a recovery in export prices.** Uncertainties persisted, however, and after regaining some ground in the last quarter of 1999, the kina depreciated rapidly in the first two months of 2000.

70. **Market sentiment improved sharply following the agreement with the Fund in March 2000 on the Stand-By Arrangement and the restoration of relationships with other multilateral and bilateral donors,** notably the World Bank, Australia, and Japan. Improved confidence triggered a rally in the foreign exchange market as exporters accelerated repatriation of export receipts putting upward pressure on the exchange rate. To slow the appreciation, the BPNG intervened in the market making net purchases of \$16.1 million in the second quarter of 2000. Despite the intervention, the kina appreciated by almost 30 percent from its low in late February to \$0.41 at end-June 2000.

### **Foreign trade**

71. **Papua New Guinea is an open economy with an export-to-GDP ratio of 56 percent and an import-to-GDP ratio of 42 percent in 1999.** Mineral exports, mainly oil, gold, and copper, account for over two-thirds of total export receipts, while logs and agricultural commodities such as palm oil products, copra, and coffee account for the rest. Imports consist predominantly of manufactures, refined oil products, and food. Australia is the largest trading partner accounting for about a third of exports and half of imports.

72. **Tariffs are the main trade policy instrument.** In July 1999, the government launched an eight-year program of phased tariff reductions as part of a major tax and tariff reform package which included the introduction of a broad-based 10 percent VAT on goods and services. Tariffs were reduced from an average unweighted rate of 22 percent to 9 percent, and the tariff structure was simplified and rationalized with the number of tariff rates reduced from six to four—0, 30, 40, and 55 percent— by removing duties of 5 and 11 percent on raw materials and capital goods, by lowering the rate on intermediate goods from 40 to 30 percent and on protected goods from 55 to 40 percent, and by lowering duties ranging previously from 55 to 125 percent to 55 percent, with some exceptions. At the same time, tariffs were increased on a number of manufacturing and agricultural goods to provide increased protection for domestic producers while tariff rates for products for which domestic production was considered nonviable were reduced to zero. Under the tariff reform program, tariff rates will be reduced further in three equal installments of five percentage points to 15, 25, and 40 percent without exceptions by 2006 when the average applied tariff will be 5 percent.

73. **Certain import and export restrictions apply for environmental, cultural, public health, and security reasons, or in accordance with international conventions.** In addition, strict quarantine regulations apply to imports of fruit and vegetables that are grown domestically, and exports of logs and fish are subject to quantitative controls to ensure sustainable harvesting levels. Export taxes are levied mainly on unprocessed logs at rates of up to 70 percent.

74. **In July 2000, parliament passed a free trade zone legislation establishing the framework and mechanism for the creation and operation of free trade zones.** The legislation defines a free trade zone (FTZ) as a “nominated area with specified boundary and required infrastructure facilities whereby manufacturing and processing activities are



conducted free of customs and excise duties applicable for the sole purpose of export.” The purpose of establishing FTZs is to bring investment and to set up processing industries with export and employment creation potential in the less developed provinces. The National Executive Council selected the provinces of Sandaun, Western, Gulf, and North Solomons as a test ground to study the experience with establishment and operation of FTZs.

75. **PNG joined the World Trade Organization (WTO) in 1996** and grants most-favored nation treatment to all WTO members. In addition, PNG is a signatory to the Lomé convention and is also a member of regional trade groupings such as the South Pacific Forum, the Melanesian Spearhead Group, and the South Pacific Regional Trade and Economic Cooperation Agreement. As a member of APEC, PNG is committed to achieving, by 2020, free trade in goods and services and investment in the region.

#### **Current account developments**

76. **The current account position improved markedly in 1998, turning from a deficit of 5.3 percent of GDP in 1997 to a surplus of 0.6 percent in 1998.** This turnaround resulted largely from a significant decline in imports due to the completion of the construction of the Lihir gold mine and a depreciation of the kina. The current account surplus rose further in 1999, reaching 1.5 percent of GDP, largely on account of increased export volumes, the recovery of oil prices, and the reduction of the deficit in services which reflected mainly a decline in business expenses by resident companies and lower dividend payments. Current transfers have remained in surplus but declined somewhat in 1999 in line with lower cash and project grants from Australia.

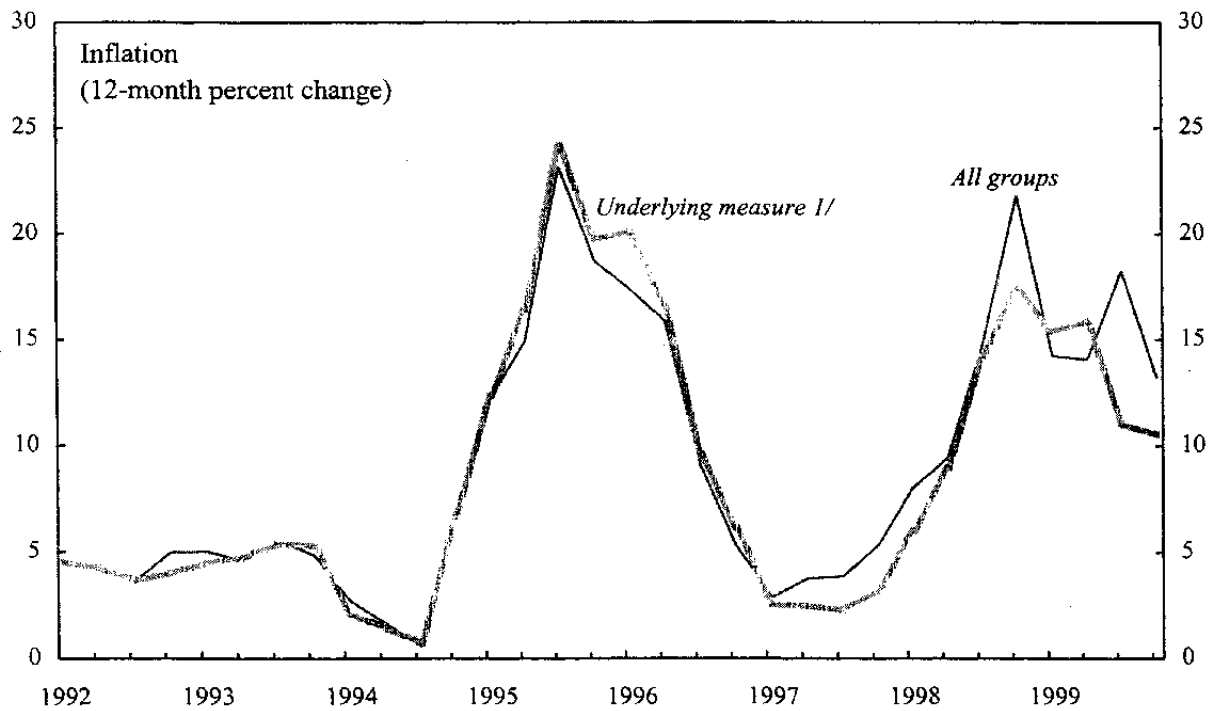
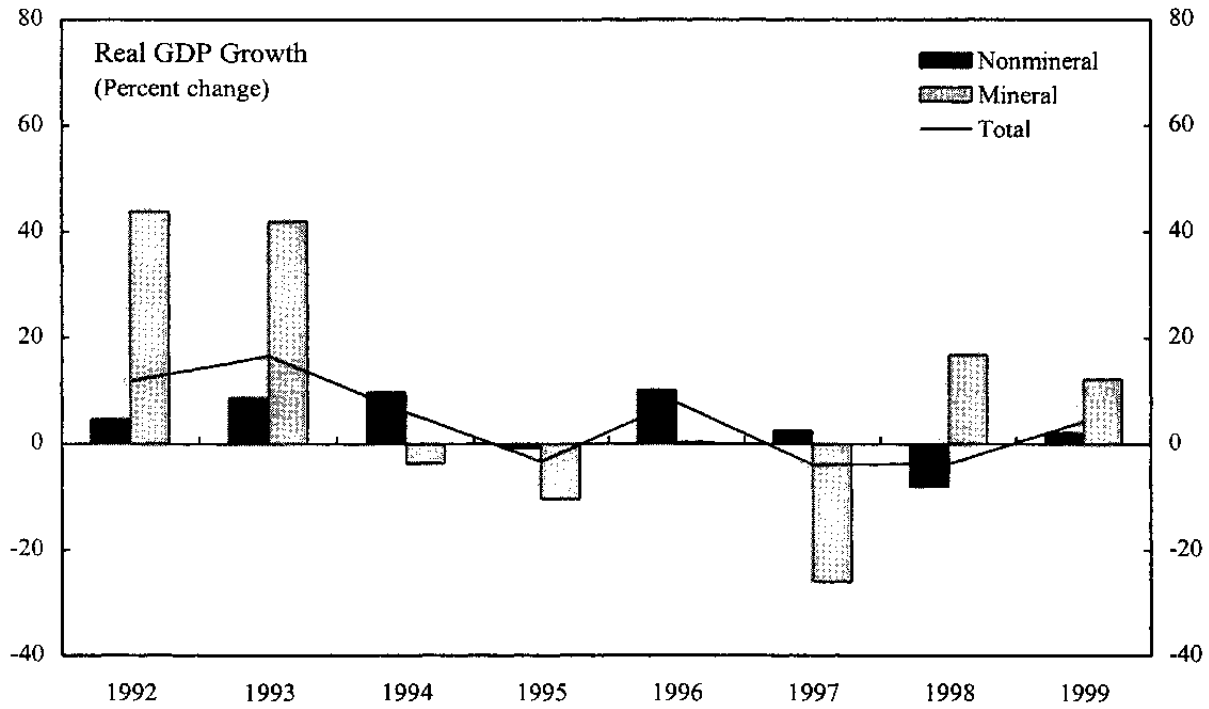
#### **Capital account developments**

77. **During 1998–99, the capital account was in deficit.** Key factors behind the capital outflows included waning private sector confidence in economic management and net repayments of external debt by the government. The deterioration of the capital account more than offset the improvement in the current account, resulting in a deficit of the balance of payments and a loss of international reserves in 1998 and in the first half of 1999. Gross international reserves declined from 3.3 months of nonmineral imports at end-1997 to 2 months at end-1999. The capital account and the overall balance of payments moved into surplus in the last quarter of 1999 as \$80 million was drawn down from a swap facility with the Reserve Bank of Australia.

#### **External debt and debt service**

78. **PNG’s stock of external debt declined from \$2.1 billion in 1997 to \$1.6 billion at end-1999,** reflecting large loan repayments by the private sector. External debt-service obligations increased from \$437 million in 1997 to \$627 million in 1999, of which amortization payments by mineral and petroleum sector companies accounted for slightly over one-half. The government’s external debt rose somewhat to \$1.4 billion in 1999, most of which was under concessional terms.

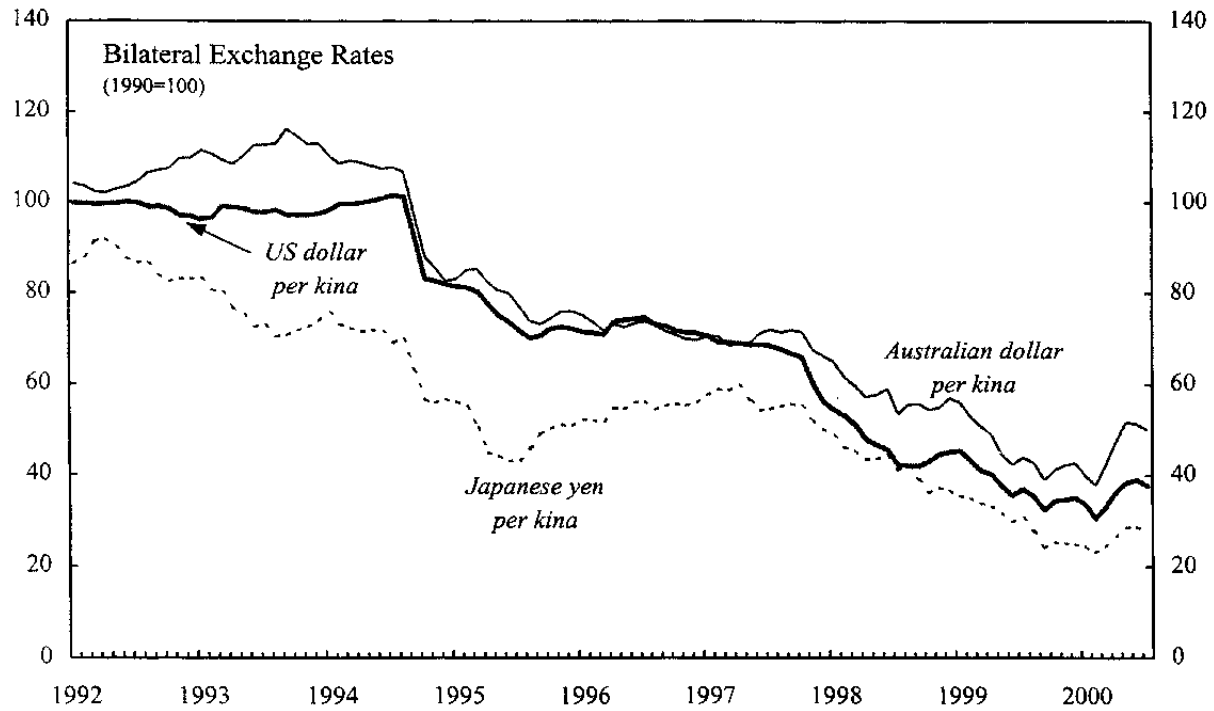
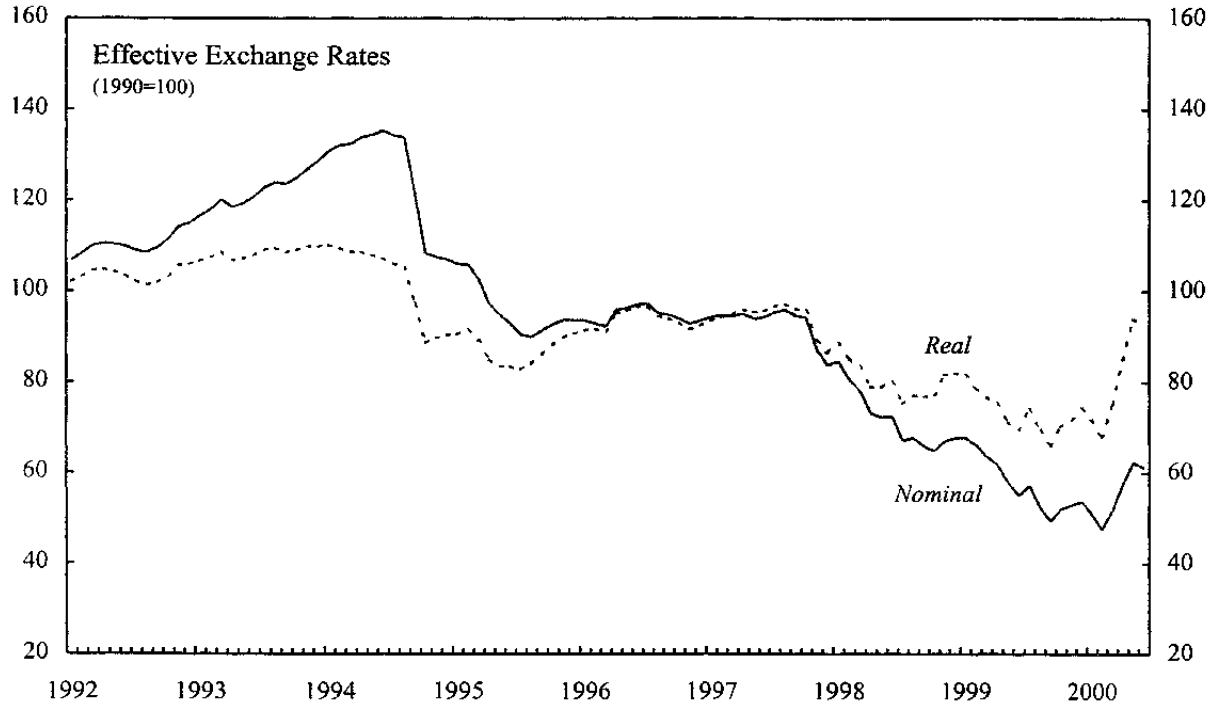
Figure 1. Papua New Guinea: Output and Prices, 1992-99



Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

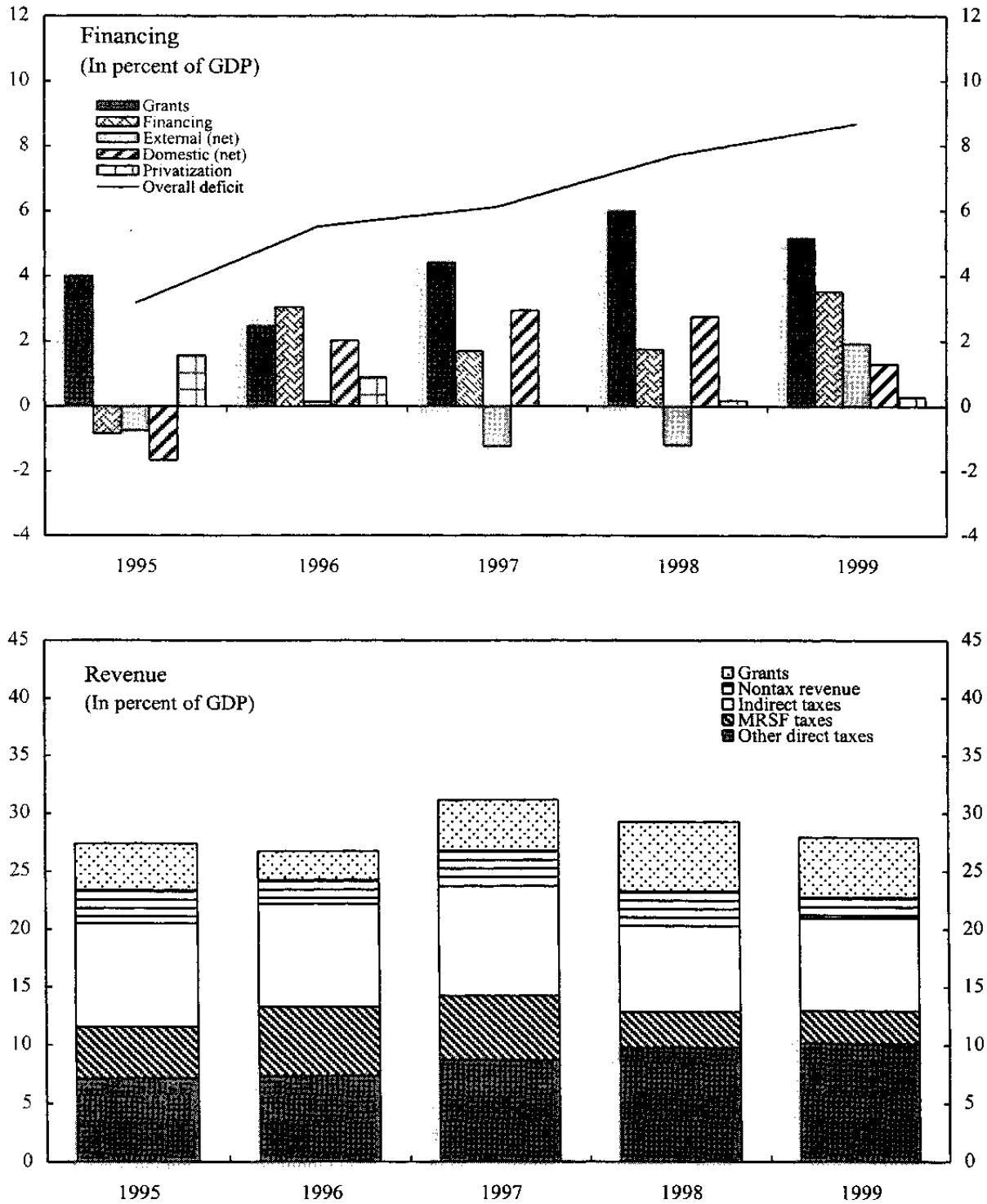
1/ All groups excluding betelnut, fruit, vegetables, and July 1999 VAT increases.

Figure 2. Papua New Guinea: Exchange Rate Developments, 1992-2000



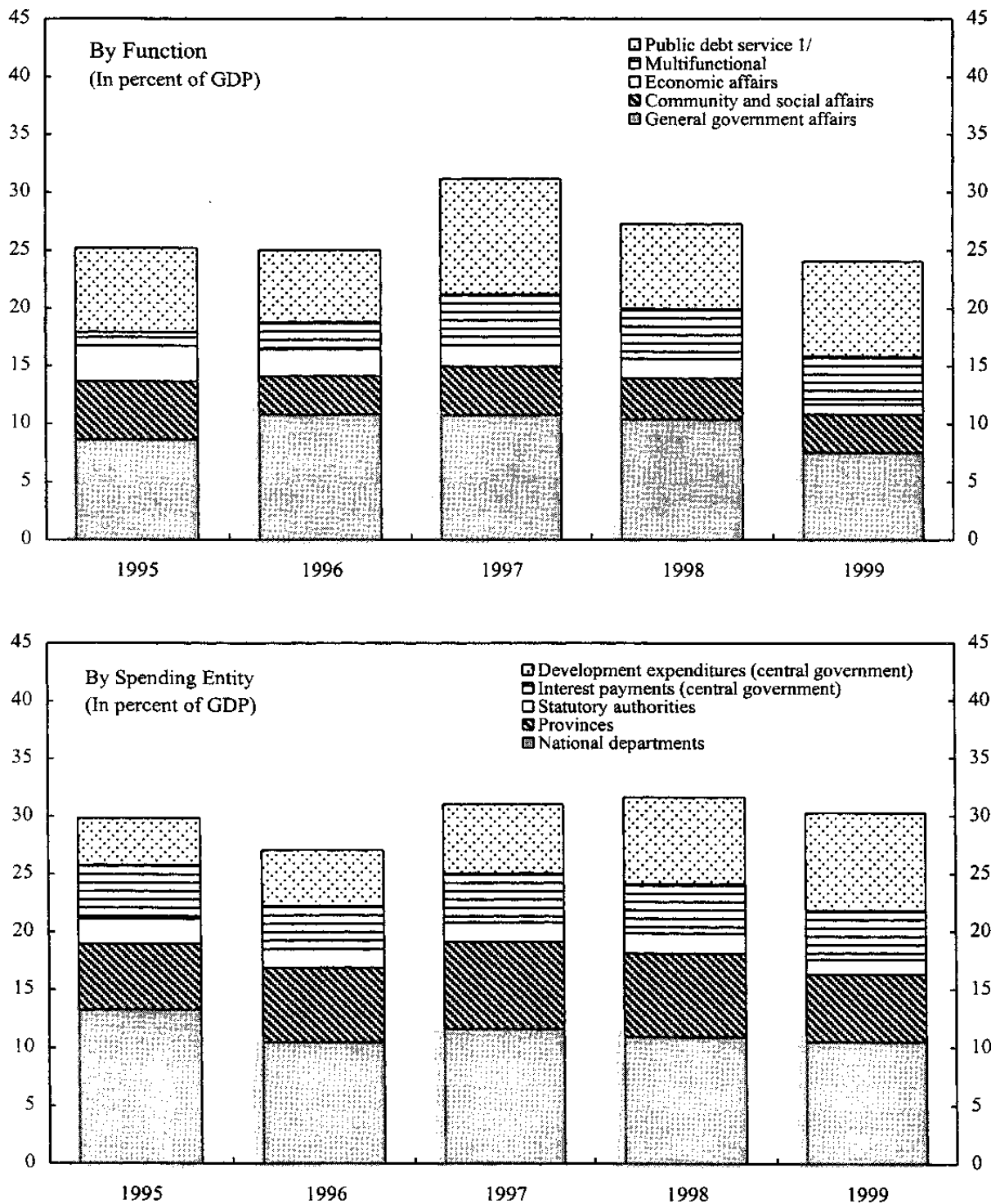
Sources: Data provided by the Papua New Guinea authorities; and IMF, Information Notice System.

Figure 3. Papua New Guinea: Central Government Financing and Revenue, 1995-99



Source: Data provided by the Papua New Guinea authorities.

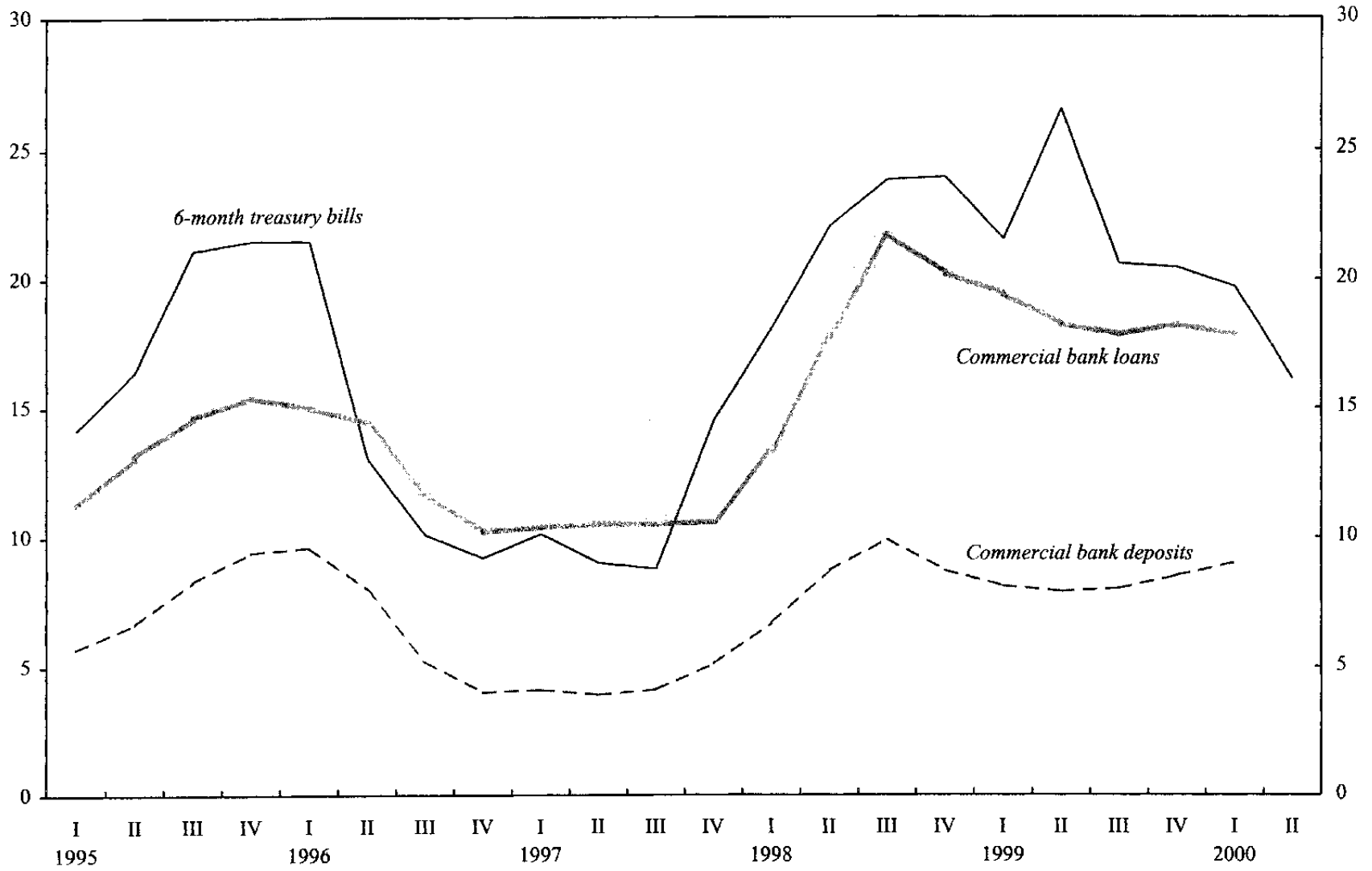
Figure 4. Papua New Guinea: Central Government Expenditure, 1995-99



Source: Data provided by the Papua New Guinea authorities.

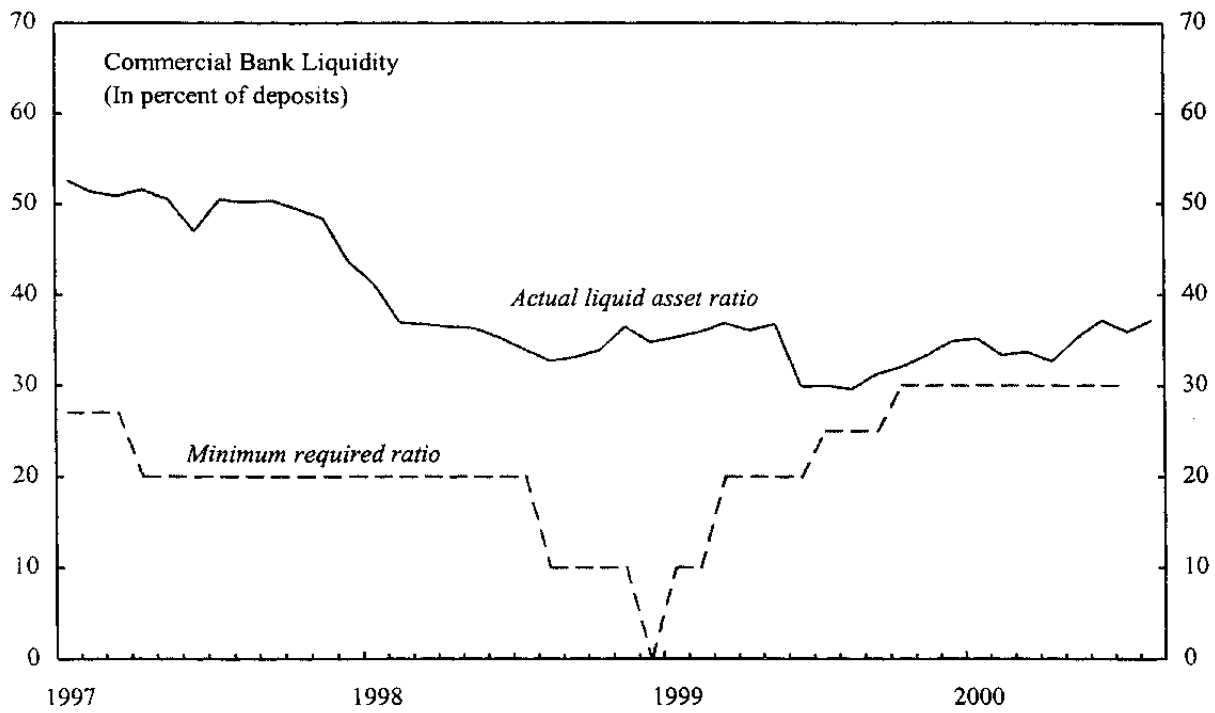
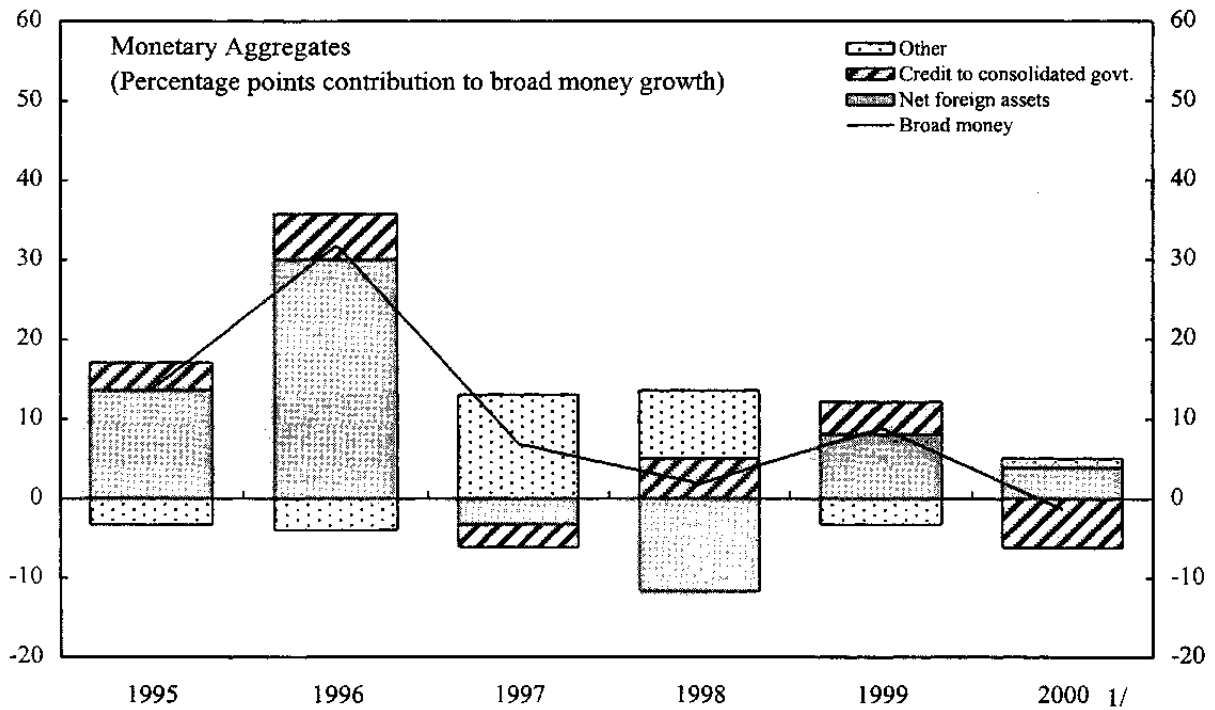
1/ Includes amortization payments.

Figure 5. Papua New Guinea: Interest Rates, 1995-2000



Source: Data provided by the Papua New Guinea authorities.

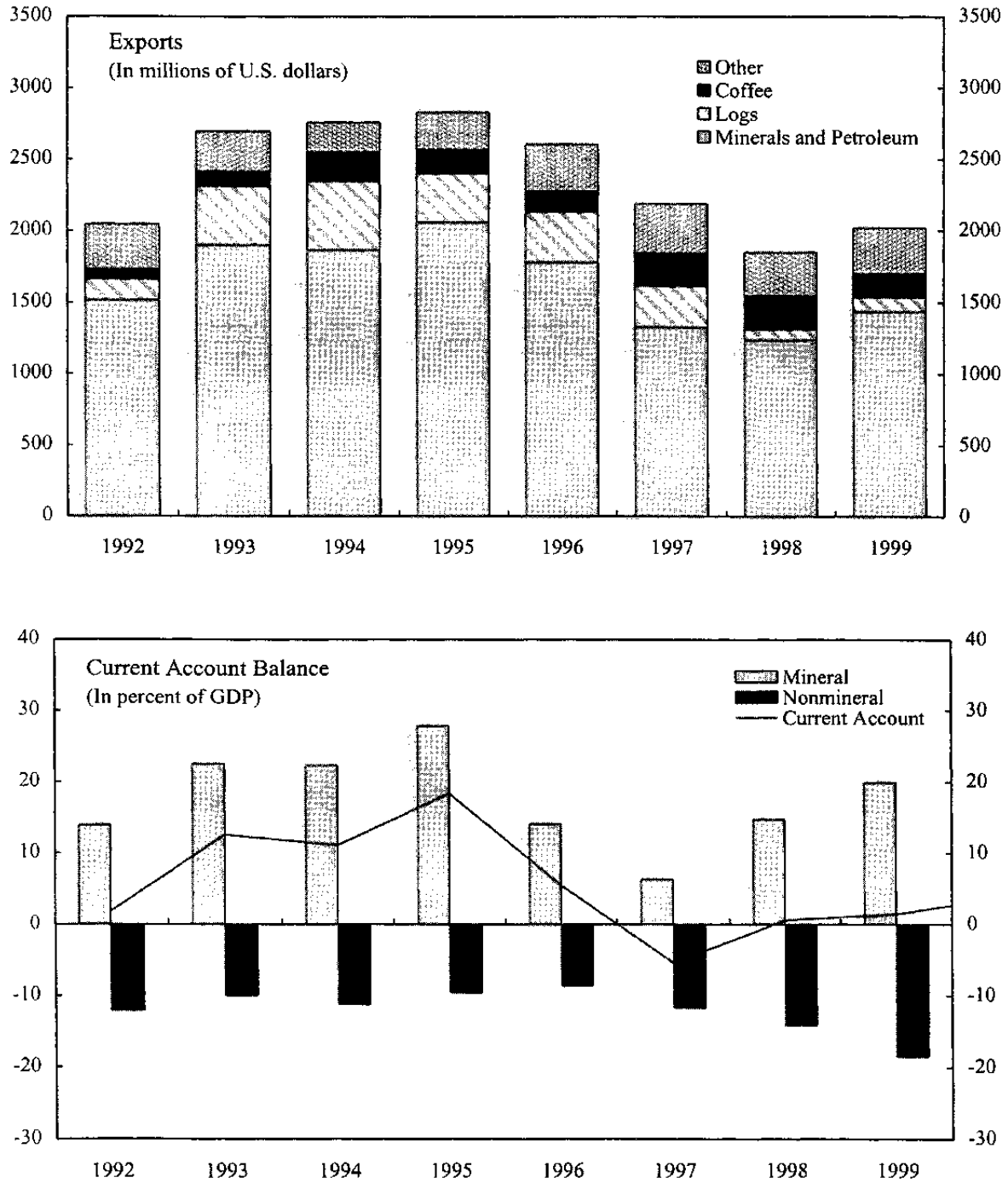
Figure 6. Papua New Guinea: Monetary Developments, 1995-2000



Source: Data provided by the Papua New Guinea authorities.

1/ Figures for 2000 are changes between June 2000 and December 1999 at annualized rates.

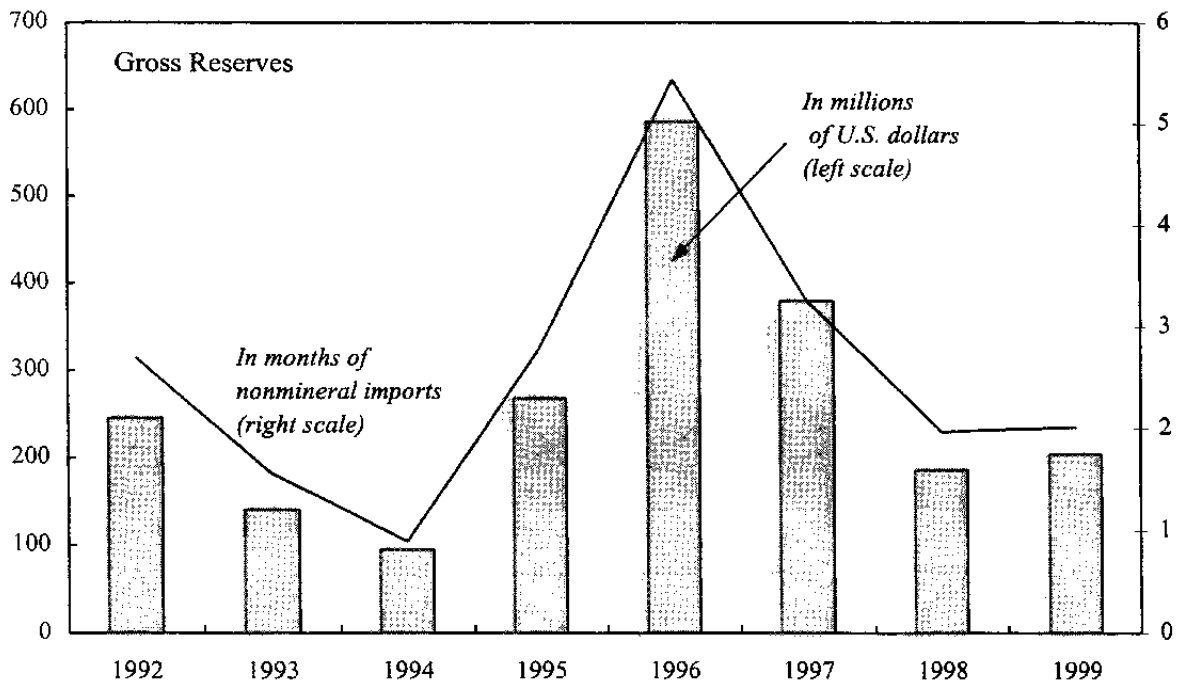
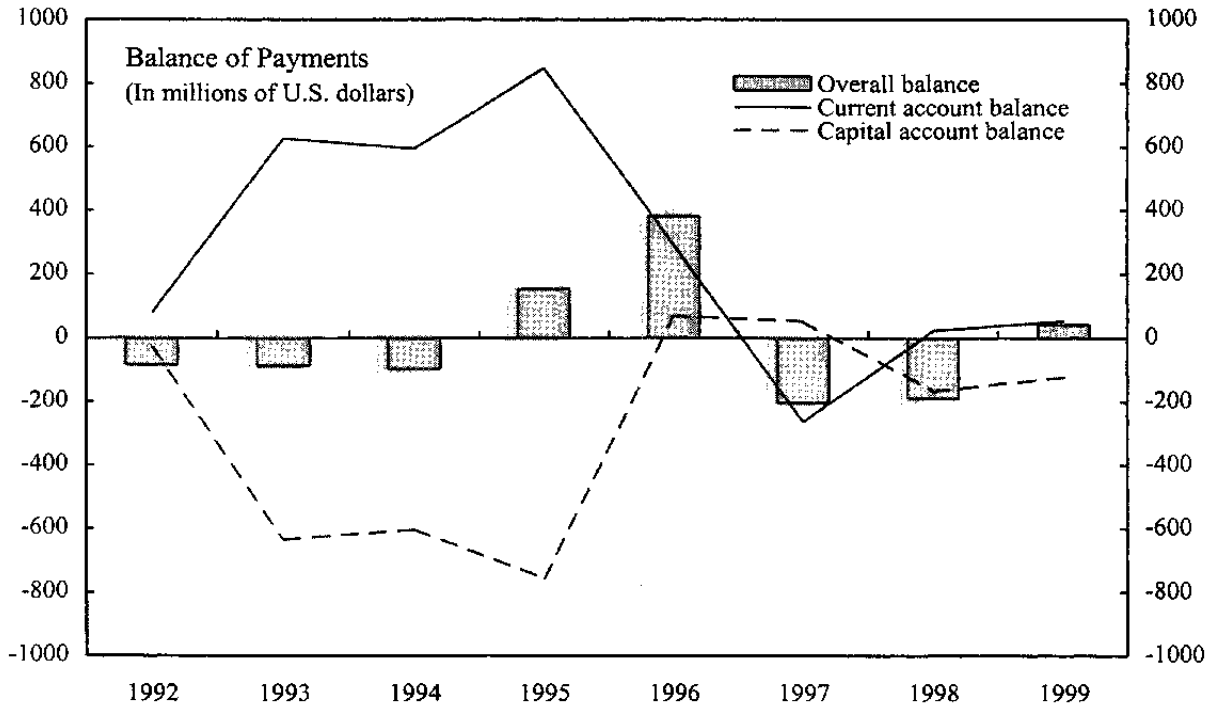
Figure 7. Papua New Guinea: Exports and Current Account Balance, 1992-99



Source: Data provided by the Papua New Guinea authorities.



Figure 8. Papua New Guinea: Balance of Payments and Gross Reserves, 1992-99



Source: Data provided by the Papua New Guinea authorities.

Table 1. Papua New Guinea: GDP by Sector at Current Market Prices, 1993–99

(In millions of kina)

	1993	1994	1995	1996	1997	1998	Est. 1999
Nominal GDP	4,867.1	5,381.4	5,888.4	6,881.2	7,063.8	7,863.4	9,256.0
Mineral	1,226.7	1,200.1	1,406.1	1,630.3	1,308.8	1,639.0	2,355.5
Nonmineral	3,640.4	4,181.3	4,482.3	5,250.9	5,755.0	6,224.4	6,900.5
<i>Of which</i> : Nonagricultural	2,298.7	2,630.3	2,793.8	3,295.0	3,542.7	3,794.8	4,210.1
Agriculture, forestry, and fishing	1,341.7	1,551.0	1,688.5	1,955.9	2,212.3	2,429.6	2,690.4
Mining and quarrying	1,226.7	1,200.1	1,406.1	1,630.3	1,308.8	1,639.0	2,355.5
Manufacturing	411.0	454.3	496.7	607.0	651.3	722.3	785.1
Electricity, gas, and water	66.3	72.9	73.8	77.4	77.5	88.3	103.8
Construction	189.9	236.7	195.5	380.6	373.8	369.9	350.3
Wholesale and retail trade	417.3	477.4	520.9	608.5	673.7	710.0	751.9
Transportation, storage, and communication	261.2	285.0	298.1	328.5	356.2	386.1	473.4
Finance, insurance, real estate, and business services	171.1	185.4	208.0	231.7	250.7	268.5	294.3
Less: Imputed bank service charge	125.0	134.1	150.7	161.4	174.1	187.7	208.3
Community, social, and personal services (mainly government)	711.4	807.4	859.0	883.5	963.4	1,045.2	1,228.0
Import duties	197.8	247.3	294.5	341.2	372.2	394.2	433.6
Less: Subsidies	2.3	2.0	2.0	2.0	2.0	2.0	2.0

Sources: Papua New Guinea National Statistical Office; and Fund staff estimates.

Table 2. Papua New Guinea: GDP by Sector at Constant 1983 Prices, 1993–99

(In millions of kina)

	1993	1994	1995	1996	1997	1998	Est. 1999
Real GDP	3,465.0	3,671.1	3,549.4	3,823.9	3,674.6	3,536.1	3,686.1
Mineral	992.2	955.9	856.5	859.4	635.9	742.6	833.6
Nonmineral	2,472.8	2,715.2	2,692.9	2,964.5	3,038.7	2,793.5	2,852.5
<i>Of which</i> : Nonagricultural	1,469.3	1,644.1	1,622.9	1,776.5	1,827.1	1,751.5	1,775.8
Agriculture, forestry, and fishing	1,003.5	1,071.1	1,070.0	1188.0	1211.6	1042.0	1076.7
Mining and quarrying	992.2	955.9	856.5	859.4	635.9	742.6	833.6
Manufacturing	248.5	270.6	272.3	314.5	330.6	339.8	329.8
Electricity, gas, and water	39.4	42.1	42.6	44.9	45.1	48.7	51.1
Construction	113.4	139.4	115.6	198.1	163.8	158.8	130.7
Wholesale and retail trade	321.8	360.4	348.0	374.0	404.9	395.5	374.0
Transportation, storage, and communication	162.6	174.9	168.6	176.2	187.1	188.0	205.8
Finance, insurance, real estate, and business services	112.1	118.1	122.7	130.9	136.1	141.3	145.5
Less: Imputed bank service charge	83.0	85.9	90.9	94.0	97.6	101.3	104.0
Community, social, and personal services (mainly government)	435.8	479.6	493.7	490.5	512.4	420.9	475.5
Import duties	120.2	146.2	151.5	142.5	145.7	160.8	168.4
Less: Subsidies	1.5	1.3	1.2	1.1	1.0	1.0	1.0

Sources: Papua New Guinea National Statistical Office; and Fund staff estimates.

Table 3. Papua New Guinea: Employment by Sector, 1994–99

(June 1989 = 100)

	1994	1995	1996	1997	1998	1999			
						Mar.	Jun.	Sep. Rev.	Dec. Prel.
Retail	88.4	92.6	94.8	103.9	111.1	114.6	115.8	119.2	119.7
Wholesale	90.6	82.3	82.1	82.7	81.7	84.0	83.9	86.0	87.7
Manufacturing	120.1	110.2	114.7	119.2	123.1	126.7	126.2	125.2	132.6
Building and construction	77.8	69.6	89.4	85.8	72.0	60.2	69.4	71.5	75.7
Transportation	95.2	89.6	96.5	99.0	96.4	95.2	92.6	89.4	89.0
Agriculture, forestry, and fisheries	101.1	87.4	90.8	83.3	74.5	76.1	78.9	78.0	79.9
Financial and business services	102.3	111.0	116.1	127.3	135.9	146.9	138.9	150.7	151.4
Mining 1/	104.9	112.2	116.2	116.7	136.0	138.0	137.1	135.5	139.4
Total	98.1	93.5	100.5	100.3	96.8	98.4	99.7	100.6	103.0
Total (percentage change) 2/	-1.4	-4.7	7.5	-0.2	-3.5	3.5	3.3	2.2	6.0

Source: *Quarterly Economic Bulletin*, Bank of Papua New Guinea.

1/ Not included in overall index; excludes subcontractors.

2/ Figures for 1994-98 refer to changes in annual averages. Percentage changes for 1999 are the changes over the corresponding quarters of 1998.

Table 4. Papua New Guinea: Consumer Price Index by Expenditure, 1995–2000

	Food	Drinks, Tobacco, and Betelnut	Clothing and Footwear	Rents, Fuel, and Power	Household Equipment and Operations	Transportation and Communications	Miscellaneous	Total
(1977 = 100)								
1995								
I	261.5	374.7	199.9	202.0	231.2	433.2	217.2	293.4
II	274.6	350.4	206.4	202.4	244.2	459.9	220.3	298.5
III	294.6	368.5	210.3	205.9	253.8	533.9	239.5	322.3
IV	306.4	402.8	220.2	206.3	267.6	514.7	243.4	333.2
1996								
I	315.9	399.7	226.1	208.5	276.9	546.7	281.5	344.4
II	321.6	390.9	229.7	211.7	280.4	546.7	285.4	345.9
III	329.3	397.6	236.4	211.5	284.2	548.0	289.3	351.4
IV	326.6	417.9	239.0	210.3	285.8	517.5	290.3	350.8
1997								
I	329.8	424.6	247.7	215.4	284.8	496.6	325.4	354.2
II	341.4	422.0	249.6	217.5	289.9	494.4	327.0	358.8
III	351.4	426.6	255.6	218.9	298.2	495.3	326.9	364.9
IV	354.1	442.4	257.3	217.7	302.1	495.1	328.5	369.5
1998								
I	363.8	468.9	278.1	213.5	309.9	537.9	288.9	382.7
II	376.7	469.7	278.2	213.5	324.4	561.5	298.7	392.6
III	404.8	510.4	287.8	216.6	346.6	589.8	308.2	418.7
IV	415.3	613.4	300.5	222.3	367.6	615.3	318.5	450.1
1999								
I	419.9	529.5	305.3	222.8	389.6	624.6	311.6	437.2
II	429.1	512.3	312.3	222.8	403.7	695.3	313.7	447.8
III	484.0	565.6	332.9	226.4	451.3	765.0	327.7	495.1
IV	493.1	590.0	348.9	230.4	475.5	786.4	334.3	509.5
2000								
I	503.4	599.7	360.8	241.1	483.1	802.8	377.7	522.9
II	513.1	656.8	367.8	241.2	497.3	850.5	377.1	545.8
Memorandum item:								
Weights in total basket (in percent) 1/	40.9	20.0	6.2	7.2	5.3	13.0	7.5	100.0

Source: *Consumer Price Index*, National Statistical Office.

1/ Weights are based on the 1977 expenditure survey.

Table 5. Papua New Guinea: Production of Major Commodities, 1995–2000

	1995	1996	1997	1998	1999	2000 Year to Mar.
<b>Copper</b>						
Volume ('000 tonnes)	215.7	127.7	77.8	109.5	143.9	31.1
<b>Gold</b>						
Volume (tonnes)	55.2	46.9	44.3	58.2	63.0	18.7
<b>Petroleum</b>						
Volume ('000 barrels)	36,990.2	39,307.7	27,972.2	28,033.6	30,646.2	5,888.8
<b>Silver</b>						
Volume (tonnes)	63.1	45.4	35.4	42.7	54.1	20.7
<b>Coffee</b>						
Volume ('000 tonnes)	55.1	62.3	59.2	83.5	79.2	7.9
<b>Cocoa</b>						
Volume ('000 tonnes)	30.6	41.0	38.6	26.1	29.0	10.9
<b>Copra</b>						
Volume ('000 tonnes)	64.2	99.2	48.6	58.1	63.5	22.4
<b>Copra oil</b>						
Volume ('000 tonnes)	33.1	49.6	48.6	53.2	50.3	12.6
<b>Palm oil</b>						
Volume ('000 tonnes)	186.6	267.0	274.9	213.0	253.8	49.8
<b>Rubber</b>						
Volume ('000 tonnes)	2.7	2.8	4.4	4.9	3.7	0.5
<b>Tea</b>						
Volume ('000 tonnes)	4.2	9.3	6.5	6.6	8.2	2.0
<b>Logs</b>						
Volume ('000 cubic meters)	2,512.5	2,607.4	2,375.9	1,066.9	1,312.3	299.9

Source: Data provided by the Papua New Guinea authorities.

Table 6. Papua New Guinea: Central Government Budget, 1995-99

(In millions of kina)

	1995	1996	1997	1998	1999
Revenues and grants	1611.0	1,837.5	2,201.5	2,299.8	2,583.3
Tax	1208.0	1,526.4	1,674.4	1,595.4	1,940.7
Nonmineral	951.0	1,121.0	1,284.4	1,354.8	1,682.0
Mineral	257.0	405.4	390.0	240.6	258.7
Nontax	167.0	141.0	215.1	234.1	165.5
<i>Of which: Mineral</i>	25.0	18.8	60.8	65.8	37.3
Grants	236.0	170.1	312.0	470.3	477.1
Budget support grants	184.0	164.5	133.0	113.5	125.8
Project grants 1/	52.0	5.6	179.0	356.8	351.3
Expenditures and net lending	1755.0	1,861.0	2,192.4	2,486.5	2,801.2
Recurrent	1516.0	1,528.8	1,767.9	1,895.4	2,020.2
Salaries and wages	590.0	604.2	655.4	690.2	776.9
Goods and services, and transfers 2/	653.0	667.3	814.9	869.8	701.9
Pre-1999 arrears and court cases	...	...	...	...	148.8
Interest	273.0	257.3	297.6	335.4	392.7
Domestic	179.0	174.5	206.3	228.0	260.5
Foreign	94.0	82.8	91.3	107.4	132.2
Development expenditures and net lending	239.0	332.2	424.5	591.1	781.0
Development budget 2/	238.0	338.6	427.6	595.7	786.1
Project grants	...	...	...	...	351.3
Concessional loans	...	...	...	...	121.3
Domestic funds	...	...	...	...	313.4
Net lending	1.0	-6.4	-3.1	-4.6	-5.0
Statistical discrepancy 3/	193.8	-185.4	-128.6	50.4	-107.6
Overall balance	49.8	-208.9	-119.5	-136.3	-325.6
Financing	-49.8	208.9	119.5	136.3	325.6
External (net)	-44.0	10.1	-87.5	-94.1	178.2
Borrowing	56.0	118.5	85.6	108.1	196.5
Amortization	-224.0	-125.7	-206.8	-202.2	-233.2
Exceptional financing	124.0	17.3	33.7	0.0	214.8
Domestic (net)	-97.8	138.5	207.0	216.5	121.0
Banking system 4/	86.0	110.9	155.3	129.1	56.1
Other	-183.8	27.7	51.7	87.4	64.9
Privatization	92.0	60.3	0.0	13.9	26.4
Memorandum items:					
Underlying balance (excluding arrears, and structural adjustment expenditures)	49.8	-208.9	-119.5	-136.3	-176.8
Overall balance, excluding grants	-186.2	-379.0	-431.5	-606.6	-802.7
Nominal GDP	5,888.4	6,881.2	7,063.8	7,863.4	9,256.1

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

1/ Does not include project grants received from Australia prior to 1997.

2/ Some conditional grants to provinces (District Support Grants, Mining Agreements, and Special Support Grants), which were previously part of recurrent expenditures, are now shown in the development budget.

3/ The overall balance is estimated from financing data.

4/ Figure for 1999 differs from monetary records due to an adjustment to reflect the drawdown of collateral deposits at the central bank in conjunction with a commodity price stabilization scheme.

Table 7. Papua New Guinea: Central Government Revenue and Grants, 1995-99

	1995	1996	1997	1998	1999
	(In millions of kina)				
Tax revenue	1,208.0	1,526.4	1,674.4	1,595.4	1,940.7
Direct taxes	678.0	911.6	1,004.4	1,008.6	1,198.0
Individuals	258.0	317.3	367.7	448.7	524.4
Companies	99.0	118.0	150.1	185.8	246.4
Dividend withholding tax	28.0	33.6	34.1	42.5	47.0
Interest withholding tax	...	...	...	...	37.0
MRSF taxes	257.0	405.4	390.0	240.6	258.7
Gaming tax	0.0	0.0	18.0	22.7	34.9
Other direct	36.0	37.3	44.5	68.3	49.6
Indirect taxes	530.0	614.8	670.0	586.8	742.7
VAT 1/	...	...	...	...	166.0
Excise taxes 2/	103.0	116.4	148.6	152.2	208.5
Mining levy 3/	...	...	...	...	7.1
Import duties 2/	294.0	341.2	372.0	394.2	281.5
Export duties 4/	133.0	157.2	149.4	40.1	78.9
Other indirect taxes	0.0	0.0	0.0	0.3	0.7
Nontax revenue	167.0	141.0	215.1	234.1	165.5
Property income	73.0	56.0	102.7	99.5	84.1
Dividends	48.0	37.2	41.9	33.7	46.8
MRSF dividends and other	25.0	18.8	60.8	65.8	37.3
Dividends	0.0	0.0	17.3	13.7	22.1
Other	25.0	18.8	43.5	52.1	15.2
Other property income	0.0	0.0	0.0	0.0	0.0
Interest and fees from lending	4.0	3.0	1.6	3.0	2.6
Other nontax revenue	90.0	82.0	110.8	131.6	78.8
Foreign grants	236.0	170.1	312.0	470.3	477.1
Budgetary support grants	184.0	164.5	133.0	113.5	125.8
Project grants	52.0	5.6	179.0	356.8	351.3
Total revenue and grants	1,611.0	1,837.5	2,201.5	2,299.8	2,583.3
Memorandum items:					
Asset sales	92.0	60.3	0.0	13.9	26.4
Total MRSF revenue	282.0	424.2	450.8	306.4	296.0
	(In percent of GDP)				
Tax revenue	20.5	22.2	23.7	20.3	21.0
Direct taxes	11.5	13.2	14.2	12.8	12.9
Individuals	4.4	4.6	5.2	5.7	5.7
Companies	1.7	1.7	2.1	2.4	2.7
Dividend withholding tax	0.5	0.5	0.5	0.5	0.5
Interest withholding tax	...	...	...	...	0.4
MRSF taxes	4.4	5.9	5.5	3.1	2.8
Gaming tax	0.0	0.0	0.3	0.3	0.4
Other direct	0.6	0.5	0.6	0.9	0.5
Indirect taxes	9.0	8.9	9.5	7.5	8.0
VAT 1/	...	...	...	...	1.8
Excise taxes 2/	1.7	1.7	2.1	1.9	2.3
Domestic excises	...	...	...	...	1.9
Import excises	...	...	...	...	0.4
Mining levy 3/	...	...	...	...	0.1
Import duties 2/	5.0	5.0	5.3	5.0	3.0
Export duties 4/	2.3	2.3	2.1	0.5	0.9
Other indirect taxes	0.0	0.0	0.0	0.0	0.0
Nontax revenue	2.8	2.0	3.0	3.0	1.8
Property income	1.2	0.8	1.5	1.3	0.9
Interest and fees from lending	0.1	0.0	0.0	0.0	0.0
Other nontax revenue	1.5	1.2	1.6	1.7	0.9
Foreign grants	4.0	2.5	4.4	6.0	5.2
Budgetary support grants	3.1	2.4	1.9	1.4	1.4
Project grants	0.9	0.1	2.5	4.5	3.8
Total revenue and grants	27.4	26.7	31.2	29.2	27.9
Memorandum items:					
Asset sales	1.6	0.9	0.0	0.2	0.3
Total MRSF revenue	4.8	6.2	6.4	3.9	3.2

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

1/ Introduced in July 1999. In 1999 includes estimated K 20 million collected in trust accounts.

2/ Regime changed in conjunction with the introduction of the VAT.

3/ Introduced in conjunction with the VAT to capture windfall gains of the mining industry.

4/ Mainly log export taxes.

5/ Australian project grants excluded prior to 1997.



Table 8. Papua New Guinea: Central Government Expenditures, 1995-99

(In millions of kina)

	1995	1996	1997	1998	1999
Recurrent expenditure	1,516.0	1,528.8	1,767.9	1,895.4	2,020.2
National departments	781.0	720.1	820.1	858.2	969.5
Salaries and wages	334.0	345.9	367.3	383.7	393.0
Goods and services	447.0	374.2	452.8	474.5	427.7
Pre-1999 arrears and court cases	...	...	...	...	148.8
Provinces	335.0	439.2	529.8	566.3	536.8
Salaries and wages	256.0	258.3	288.1	306.5	383.9
Goods and services	79.0	76.6	72.8	124.9	88.5
Conditional grants 1/	0.0	104.3	168.9	134.9	64.5
Statutory authorities	127.0	112.2	120.4	135.5	121.2
Interest payments	273.0	257.3	297.6	335.4	392.7
Domestic	179.0	174.5	206.3	228.0	260.5
External	94.0	82.8	91.3	107.4	132.2
Development expenditures and net lending	239.0	332.2	424.5	591.1	781.0
Development budget by financing	238.0	338.6	427.6	595.7	786.1
Project grants	52.0	5.6	179.0	356.8	351.3
Concessional loans	56.0	118.5	85.6	108.1	121.3
Domestic funds	130.0	214.5	163.0	130.8	313.4
Rural development program	...	...	...	...	89.0
Grants to provinces 1/	11.2	85.8	55.0	36.6	46.3
Other	118.8	128.7	108.0	94.2	178.1
Development budget by spending entity	238.0	338.6	427.6	595.7	786.1
National and statutory	220.0	252.8	318.0	494.8	698.0
Provinces	18.0	85.8	109.6	100.9	88.0
Net lending	1.0	-6.4	-3.1	-4.6	-5.0
Total expenditure and net lending	1,755.0	1,861.0	2,192.4	2,486.5	2,801.2
Memorandum items:					
Total wages and salaries	590.0	604.2	655.4	690.2	776.9
Health expenditure 2/	53.5	90.3	125.4	160.3	171.2
Education expenditure 2/ 3/	89.0	62.4	121.4	378.2	422.4
Military expenditure	57.0	103.0	92.0	87.1	91.7

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

1/ Some conditional grants to provinces (District Support Grants, Mining Agreements, and Special Support Grants) were previously classified in recurrent expenditures and are now in development expenditures.

2/ Does not include transfers to statutory authorities and provinces.

3/ Figures for 1998 and 1999 include teachers' salaries.

Table 9. Papua New Guinea: Central Government Expenditure by Function, 1994-99 1/

(In millions of kina)

	1994	1995	1996	1997	1998	1999
General government affairs	506	507	741	759	816	698
Community and social affairs	288	295	227	295	278	301
Economic affairs	213	184	164	131	134	81
Multifunctional	54	68	161	313	339	385
Public debt service 1/	384	429	428	702	575	761
Total	1,445	1,484	1,722	2,200	2,142	2,226

Source: Papua New Guinea Department of Finance and Treasury.

1/ Includes amortization payments.

Table 10. Papua New Guinea: Mineral Resources Stabilization Fund, 1995–2000

(In millions of kina)

	1995	1996	1997	1998	1999	2000 Mar.
Total receipts	282	424	452	311	309	20
Company tax	257	405	391	241	259	20
Dividends on government shareholdings	0	0	17	0	35	0
Other receipts	25	19	44	70	15	0
Transfers to central government budget	170	195	287	330	986	20
Net change in fund balance	112	229	165	-19	-677	0
Balance at end of period	302	531	696	677	0	0

Source: Bank of Papua New Guinea.

Table 11. Papua New Guinea: Provincial Governments' Budget Revenue, 1997-99

(In millions of kina)

Province	1997			1998			1999			
	Grants 1/	Internal	Total	Grants 1/	Internal	Total	Grants 1/	Internal (Prel.)	VAT (Est.) 2/	Total
Bougainville	22.7	1.7	24.4	19.0	1.7	20.7	21.9	0.0	0.0	21.9
Central	22.9	5.1	28.0	23.9	7.5	31.4	25.2	6.0	0.3	31.5
East New Britain	27.0	10.0	37.0	32.9	13.1	46.0	30.8	1.5	3.6	35.9
East Sepik	36.1	2.8	38.9	37.8	3.6	41.4	33.2	6.8	0.6	40.6
Eastern Highlands	39.5	10.0	49.5	42.6	5.9	48.5	38.8	2.4	1.2	42.4
Enga	39.8	5.8	45.6	36.7	9.6	46.3	33.8	1.2	1.2	36.2
Fly River	31.7	20.9	52.6	34.2	21.0	55.2	30.2	2.7	0.3	33.2
Gulf	19.9	1.9	21.8	20.8	4.0	24.8	18.1	0.8	0.2	19.1
Madang	32.4	5.2	37.6	36.1	14.7	50.8	33.2	1.5	1.7	36.4
Manus	9.4	2.1	11.5	10.9	1.6	12.5	10.8	1.2	0.4	12.4
Milne Bay	27.1	10.0	37.1	29.6	12.0	41.6	27.4	1.5	0.7	29.6
Morobe	50.9	24.3	75.2	54.3	33.3	87.6	47.7	5.5	9.0	62.2
New Ireland	21.1	5.6	26.7	23.8	9.6	33.4	27.3	1.6	1.5	30.4
National Capital District	16.9	57.2	74.1	15.6	60.0	75.6	7.4	0.0	26.4	33.8
Oro	18.1	7.9	26.0	19.1	2.8	21.9	17.0	1.3	0.5	18.8
Sandaun (West Sepik)	21.4	2.9	24.3	23.9	3.6	27.5	21.1	0.1	0.4	21.6
Simbu	25.5	1.2	26.7	27.8	3.2	31.0	26.3	1.6	0.4	28.3
Southern Highlands	51.3	27.9	79.2	56.3	24.7	81.0	44.0	3.4	0.5	47.9
West New Britain	22.3	7.0	29.3	24.8	8.0	32.8	25.3	2.8	1.7	29.8
Western Highlands	41.5	12.7	54.2	44.4	12.0	56.4	37.7	5.3	3.4	46.4
Total	577.5	222.2	799.7	614.5	251.9	866.4	519.5	47.2	54.0	620.7

Sources: Papua New Guinea Department of Finance and Treasury; and Fund staff estimates.

1/ From central government.

2/ Includes mining levy. In July 1999, VAT replaced provincial sales taxes. In 1999, provinces received 30 percent of revenue from the VAT and the mining levy. Provincial distribution estimated from total.

Table 12. Papua New Guinea: Financial Performance of Major  
Nonfinancial Public Enterprises, 1995-99

(In millions of kina)

	1995	1996	1997	1998	1999
<b>Electricity Commission</b>					
Revenue	109.8	109.1	106.7	116.5	132.5
Costs	84.7	84.1	98.2	99.2	120.3
Operating profit 1/	25.1	25	8.5	17.3	12.2
ROI (percent) 2/	4.3	6.0	3.5	4.3	3.1
<b>Air Niugini</b>					
Revenue	179.7	200	206.4	206	239.4
Costs	187.7	195.3	207.5	215.3	260.9
Operating profit 1/	-8.0	4.7	-1.1	-9.3	-21.5
ROI (percent) 2/	-5.1	3.3	-0.7	-4.9	-0.13
<b>Harbours Board</b>					
Revenue	24.8	28.3	30.1	24.8	29.9
Costs	22.8	26.2	29.3	23.7	37
Operating profit 1/	2.0	2.1	0.8	1.1	-7.1
ROI (percent) 2/	1.3	1.2	0.4	0.45	...
<b>Papua New Guinea Banking Corporation 3/</b>					
Revenue	78.1	97	94.6	161.2	...
Costs	50.9	70.9	73	115.2	...
Operating profit 1/	15.3	26.1	21.5	45.9	...
ROI (percent) 2/	0.3	0.5	0.4	0.9	...

Source: Data provided by the Papua New Guinea authorities.

1/ Before tax and interest payments (minus sign denotes operating loss).

2/ Rate of return on investment, defined as the ratio of operating profits to fixed assets.

3/ Merged with other financial institutions into Finance Pacific Limited Group in 1998.

Table 13. Papua New Guinea: Government Domestic Debt Outstanding, 1995-2000 1/

(In millions of kina, unless otherwise indicated)

	1995	1996	1997	1998				1999				2000 Mar.
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.	Sep.	Dec.	
<b>Total</b>	1,605.7	1,969.5	2,251.7	2,223.9	2,217.7	2,217.7	2,473.0	2,602.1	2,586.2	2,651.0	2,021.3	2,015.3
(In percent of GDP)	27.3	28.6	31.9	30.6	29.7	28.9	31.4	31.7	30.2	29.8	21.8	21.2
<b>By creditor</b>												
Bank of Papua New Guinea (BPNG)	634.2	622.1	951.4	1,101.0	1,067.8	1,469.2	1,326.9	1,472.0	1,434.7	1,425.5	614.7	402.8
Commercial banks	755.7	1,132.4	1,062.4	901.2	907.4	507.6	819.7	752.4	717.4	772.7	806.7	861.4
Other financial institutions	56.0	75.4	76.7	64.0	64.2	76.2	101.2	90.8	81.5	53.7	240.0	261.2
Commodity stabilization funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other government agencies 2/	0.1	5.3	21.9	24.8	27.7	27.8	47.9	46.7	23.7	23.1	19.5	27.7
Superannuation funds	102.2	80.8	86.7	85.9	86.5	87.0	85.7	102.0	129.2	118.5	114.0	109.7
Other	57.4	53.5	52.6	47.0	64.1	49.9	91.7	138.3	199.6	257.5	226.4	352.6
<b>By instrument</b>												
Long-term securities and loans	288.2	354.2	320.1	292.3	286.1	286.1	286.1	285.3	269.3	264.1	246.1	240.1
Treasury bills 3/	1,217.5	1,615.3	1,931.6	1,931.6	1,931.6	1,931.6	2,186.9	2,186.9	2,186.9	2,186.9	1,775.2	1,775.2
Special BPNG loans 4/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	130.0	130.0	200.0	0.0	0.0
<b>Government deposits with the banking system</b>	746.0	1,007.5	1,148.4	1,092.0	1,051.1	1,157.5	1,204.3	1,119.6	1,146.0	1,142.1	484.3	523.2
Of which: MRSF	302.0	531.4	696.4	662.0	616.1	614.0	677.3	570.5	561.2	566.8	0.0	0.0
<b>Net domestic debt</b>	859.6	962.0	1,103.3	1,131.9	1,166.6	1,060.2	1,268.9	1,482.5	1,440.2	1,508.9	1,537.0	1,492.1
(In percent of GDP)	14.6	14.0	15.6	15.6	15.6	13.8	16.1	18.1	16.8	16.9	16.6	15.7
<b>Memorandum items:</b>												
Debt held outside BPNG	971.4	1,347.4	1,300.3	1,122.9	1,149.9	748.5	1,146.2	1,130.1	1,151.5	1,225.5	1,406.6	1,612.5
(In percent of GDP)	16.5	19.6	18.4	15.5	15.4	9.8	14.6	13.8	13.5	13.8	15.2	17.0

Source: Bank of Papua New Guinea, *Quarterly Economic Bulletin*.

1/ Excluding arrears.

2/ Including public authorities.

3/ In December 1999, includes the K 214.8 million swap arrangement between the Reserve Bank of Australia and the BPNG.

4/ Special loans, promissory notes, temporary advances, and new issues of government securities; K 130 million in March and June 1999 was in the form of new treasury bills issued to commercial banks, while K 200 million in September 1999 was a temporary advance from the BPNG.

Table 14. Papua New Guinea: Monetary Survey, 1996-2000

	1996	1997	1998	1999				2000	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
(In millions of kina)									
Net foreign assets	845	767	463	368	366	420	676	588	732
Bank of Papua New Guinea	716	575	291	230	142	230	489	432	563
Assets	789	666	391	327	228	314	551	461	624
Liabilities	73	91	100	97	86	84	62	29	61
Commercial banks	129	192	171	139	224	190	187	156	168
Net domestic assets	1,587	1,831	2,183	2,334	2,412	2,421	2,204	2,189	2,129
Domestic credit	1,891	2,320	2,716	2,898	2,912	2,995	2,825	2,669	2,828
Net credit to consolidated central government 1/	685	840	969	1,266	1,136	1,246	1,077	876	986
Bank of Papua New Guinea	-253	-97	368	678	679	698	498	266	212
Claims on government	587	881	1,285	1,423	1,403	1,414	599	398	338
Government deposits	840	978	917	745	725	716	102	133	125
Commercial banks	938	937	601	588	458	548	580	611	774
Credit to other sectors 2/	1,206	1,480	1,747	1,632	1,776	1,749	1,747	1,793	1,842
Of which: Claims on private sector	780	1,064	1,372	1,341	1,478	1,463	1,517	1,563	1,596
Other items (net)	-305	-489	-533	-564	-500	-574	-620	-480	-699
Broad money	2,432	2,598	2,646	2,702	2,778	2,841	2,880	2,778	2,861
Narrow money	865	919	1,021	988	1,149	1,178	1,234	1,138	1,115
Quasi money	1,567	1,679	1,624	1,714	1,629	1,663	1,646	1,640	1,746
(Percentage change) 3/									
Net foreign assets	...	-9.3	-39.7	-21.5	-29.8	-25.4	46.0	59.8	99.8
Bank of Papua New Guinea	...	-19.7	-49.4	-19.3	-61.3	-38.5	67.8	88.1	296.7
Commercial banks	...	48.1	-10.5	-24.9	44.9	0.8	9.0	12.9	-25.0
Net domestic assets	...	15.4	19.2	10.7	13.2	11.6	1.0	-6.2	-11.7
Domestic credit	...	22.7	17.1	15.9	8.6	10.9	4.0	-7.9	-2.9
Net credit to consolidated central government 1/	...	22.7	15.4	43.3	23.8	49.9	11.2	-30.8	-13.2
Net credit to other sectors 2/	...	22.7	18.0	0.9	0.6	-6.4	0.0	9.8	3.7
Of which: Claims on the private sector	...	36.3	29.0	11.3	10.2	5.7	10.5	16.6	8.0
Broad money	...	6.8	1.8	4.8	4.8	4.0	8.9	2.8	3.0
Memorandum items:									
Net international reserves (millions of U.S. dollars)	532	328	139	96	55	78	181	165	230
Gross reserves (millions of U.S. dollars)	586	380	187	137	89	106	204	176	254
Change in net credit to government (beginning of year)	...	155	129	297	167	277	108	-201	-91
Exchange rate (US\$/kina)	0.743	0.571	0.477	0.420	0.390	0.338	0.371	0.382	0.408
Velocity of broad money (ratio)	2.8	2.7	3.0	3.0	3.1	3.1	3.2	3.4	3.4

Sources: Bank of Papua New Guinea; and Fund staff estimates.

1/ Includes net credit to the central government and the commodity stabilization funds.

2/ Includes credit to the private sector, provincial governments, and nonfinancial public enterprises.

3/ 12-month percentage change.

Table 15. Papua New Guinea: Balance Sheet of the Central Bank, 1996-2000

(In millions of kina, unless otherwise indicated)

	1996	1997	1998	1999				2000	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
Net foreign assets	716	575	291	230	142	230	489	432	563
Assets	789	666	391	327	228	314	551	461	624
Liabilities	73	91	100	97	86	84	62	29	61
Net domestic assets	-227	-254	97	253	424	371	184	89	-62
Domestic credit	-23	120	490	737	739	757	555	323	269
Net credit to government	-253	-97	368	678	679	698	498	266	212
<i>Of which</i> : Claims on government	587	881	1,285	1,423	1,403	1,414	599	398	338
Credit to other sectors	230	217	122	59	60	59	57	57	57
Other items, net	-203	-374	-393	-484	-315	-386	-370	-234	-332
Reserve money	489	322	388	483	566	601	673	521	501
Currency in circulation	254	276	324	292	360	356	421	344	343
Notes	226	246	293	260	327	322	387	309	308
Coins	27	30	32	32	33	34	34	35	35
Deposits of commercial banks	79	26	60	173	195	197	247	173	149
ESA deposits	79	26	60	45	61	64	110	37	9
CRR deposits	0	0	0	128	134	133	137	136	139
Other deposits	157	20	4	17	11	48	5	5	9
Memorandum items:									
Broad money	2,432	2,598	2,646	2,702	2,778	2,841	2,880	2,778	2,861
Currency outside banks	208	225	277	234	284	279	342	266	263
Deposits	2,224	2,373	2,369	2,468	2,494	2,563	2,538	2,511	2,598
(As a percent of broad money)	91	91	90	91	90	90	88	90	91
Currency/deposits (ratio)	9.4	9.5	11.7	9.5	11.4	10.9	13.5	10.6	10.1
Broad money multiplier (ratio)	5.0	8.1	6.8	5.6	4.9	4.7	4.3	5.3	5.7
Net international reserves (millions of U.S. dollars)	532	328	139	96	55	78	181	165	230
Gross reserves (millions of U.S. dollars)	586	380	187	137	89	106	204	176	254

Sources: Bank of Papua New Guinea; and Fund staff estimates.



Table 16. Papua New Guinea: Assets and Liabilities of Commercial Banks, 1996-2000

(In millions of kina; end of period)

	1996	1997	1998	1999				2000	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
Reserves	125	77	107	232	271	274	325	250	230
Notes and coins	46	51	47	58	76	77	79	77	81
Deposits with BPNG	79	26	60	173	195	197	247	173	149
Net foreign assets	129	192	171	139	224	190	187	156	168
Assets	160	206	286	197	265	251	286	260	247
Liabilities	-31	-14	114	58	41	61	99	103	79
Net credit to central government	938	1,012	601	588	458	548	580	611	810
Credit	1,105	1,183	889	813	713	769	792	841	1,033
Short-term securities	1,100	1,100	806	726	692	748	768	817	959
Long-term securities	0	8	0	0	0	0	0	0	0
Loans	5	75	83	88	21	21	24	24	74
Deposits	-167	-171	-288	-225	-255	-221	-212	-230	-223
Other credit 1/	1,205	1,480	1,750	1,617	1,764	1,868	1,750	1,617	1,764
Commodity stabilization funds	226	214	119	166	158	147	119	166	158
Other	979	1,265	1,632	1,451	1,606	1,721	1,632	1,451	1,606
Other assets (net)	-101	-190	-143	-66	-177	-310	-256	-73	-54
Deposits	2,067	2,354	2,365	2,451	2,483	2,514	2,533	2,506	2,758
Demand deposits 2/	657	695	744	754	866	899	891	871	939
Quasi-money	1,410	1,659	1,621	1,697	1,618	1,615	1,641	1,635	1,819
Savings deposits	312	330	334	309	333	345	306	313	334
Term deposits	963	1,135	1,108	1,200	1,091	1,077	1,165	1,159	1,296
Foreign currency deposits	135	194	179	187	194	193	171	163	189
Borrowing from BPNG	229	216	121	58	57	55	54	54	160

Sources: Bank of Papua New Guinea.

1/ Includes claims on provincial and local governments, public financial institutions, and the private sector.

2/ Includes demand deposits of local and provincial governments and public enterprises.

Table 17. Papua New Guinea: Commercial Bank Loans by Sector, 1996–2000

(In millions of kina; end of period)

	1996	1997	1998	1999				2000 Mar.
				Mar.	Jun.	Sep.	Dec.	
Agriculture, forestry, and fishing	281	290	232	181	195	144	138	141
Mining	27	63	55	20	20	21	19	18
Manufacturing	66	88	77	68	70	63	68	72
Building and construction	27	45	61	63	62	64	60	58
Transportation and communication	68	135	141	162	176	205	194	169
Finance	109	117	166	162	148	135	69	86
Commerce	226	233	350	364	422	352	362	386
Other business	280	368	465	316	484	566	633	652
Government 1/	7	76	88	92	26	25	29	31
Personal	121	140	194	293	190	192	197	200
Other	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,211</b>	<b>1,554</b>	<b>1,829</b>	<b>1,719</b>	<b>1,793</b>	<b>1,766</b>	<b>1,768</b>	<b>1,813</b>

Source: Bank of Papua New Guinea, *Quarterly Economic Bulletin*.

1/ Loans to central, provincial, and local governments. Excludes commercial bank holdings of government securities.

Table 18. Papua New Guinea: VAT Collections, Refunds, and Distributions,  
July 1999-August 2000 1/

	Collections			Total	Refunds Total	Distributions			Retained
	VAT Import	VAT Domestic	Mining Levy			Central Govt.	Provinces	Total	
(In millions of kina)									
1999									
July	16.2	0.0	0.0	16.2	0.0	0.0	0.0	0.0	16.2
August	28.7	8.5	4.2	41.5	0.0	0.0	0.0	0.0	57.7
September	26.5	20.2	2.5	49.2	0.0	42.0	11.4	53.4	53.6
October	24.9	0.0	0.3	25.2	0.0	32.3	20.9	53.2	25.6
November	26.7	15.7	0.0	42.4	0.0	26.2	10.3	36.5	31.5
December	24.2	15.2	0.0	39.4	0.0	45.0	11.5	56.5	14.4
Total	147.3	59.6	7.1	214.0	0.0	145.5	54.0	199.5	14.4
2000									
January	25.7	14.6	12.7	53.1	21.7	18.9	12.3	31.2	0.2
February	28.2	13.9	4.2	46.3	6.4	27.7	12.1	39.7	0.4
March	33.5	14.9	11.9	60.4	16.6	32.1	12.1	44.1	0.0
April	27.5	16.7	1.9	46.0	0.0	23.9	12.1	36.0	10.0
May	29.6	18.0	3.6	51.1	8.4	30.7	12.1	42.8	10.0
June	25.6	21.2	5.6	52.3	7.8	35.2	12.0	47.2	7.3
July	24.3	15.7	5.2	45.3	19.4	11.2	12.0	23.2	10.0
August	29.1	23.5	10.2	62.9	12.9	37.0	12.4	49.4	10.6
Total	223.5	138.6	55.3	417.3	93.1	216.7	97.0	313.7	10.6
Total	370.8	198.2	62.3	631.3	93.1	362.2	151.0	513.2	25.0

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

1/ VAT was introduced on July 1, 1999.

Table 19. Papua New Guinea: Reserve Requirements, December 1996-August 2000

(In percent)

Period	Cash Reserve Requirement (CRR)	Minimum Liquid Assets Ratio (MLAR)	Total Requirement
December 1996-February 1997	0.00	27.00	27.00
March 1997-July 1998	0.00	20.00	20.00
August 1998-November 1998	0.00	20.00	20.00
December 1998-January 12, 1999	0.00	0.00	0.00
January 15, 1999-February 1999	10.00	0.00	10.00
March 1999-May 1999	5.00	15.00	20.00
June 1999-August 1999 1/	5.00	20.00	20.00
September 1999-August 2000	5.00	25.00	25.00

Source: Bank of Papua New Guinea.

1/ From June 1999, CRR deposits at the central bank were excluded from the definition of liquid assets.

Table 20. Papua New Guinea: Interest Rates, 1996-2000

(In percent per annum; end of period)

	1996	1997	1998	1999				2000	
				Mar.	Jun.	Sep.	Dec.	Mar.	Jun.
<b>Bank of Papua New Guinea</b>									
Kina auction rate 1/	10.30	10.20	18.15	15.04	19.18	17.38	12.80	11.98	9.55
<b>Commercial bank rates</b>									
<b>Deposit rates</b>									
Passbook savings	3.50-4.50	3.00-4.50	3.00-5.25	3.00-5.25	3.00-5.25	3.00-5.25	3.00-5.25	3.00-5.25	...
<b>Term deposits 2/</b>									
3-6 months	4.75-8.25	5.00-8.00	6.00-11.50	6.00-11.50	6.00-19.00	6.00-11.50	6.00-11.00	6.00-14.00	...
6-12 months	4.50-7.75	5.25-8.50	6.00-12.00	6.00-14.25	6.00-14.25	6.00-12.00	6.00-12.50	6.00-12.50	...
1 year and over	6.75-7.25	5.00-8.50	7.00-15.00	6.00-15.00	6.00-15.00	6.00-15.00	6.00-12.00	6.00-12.00	...
Weighted average	4.00	5.10	8.70	8.10	7.90	8.00	8.50	9.00	...
<b>Lending rates</b>									
Overdraft	9.25	9.50	12.75	12.75	12.75	12.75	12.75	17.75	...
Prime lending rate (ILR)	8.50	8.25	...	11.50	16.50	21.75	21.75	11.50	...
Average lending rate	10.20	10.60	20.20	19.40	18.20	17.80	18.20	17.80	...
<b>Treasury bills (182 days) 3/</b>	9.19	14.50	23.94	21.52	26.50	20.58	20.44	19.69	14.71

Source: Bank of Papua New Guinea.

1/ Rate of the last auction of the month.

2/ On deposits of less than K 100,000.

3/ Treasury bills are sold at a discount; rates shown are end-period calculated effective yields.

Table 21. Papua New Guinea: Balance of Payments, 1994-99

(In millions of U.S. dollars)

	1994	1995	1996	1997	1998	1999
Current account balance	594	848	289	-263	23	53
Mineral	1,193	1,287	736	311	564	718
Nonmineral	-600	-439	-447	-574	-540	-665
Trade balance	1,193	1,298	813	213	424	494
Exports (f.o.b.)	2,757	2,830	2,603	2,186	1,849	2,019
Mineral	1,863	2,056	1,777	1,328	1,239	1,438
Nonmineral	894	774	827	857	610	581
Imports (c.i.f.)	-1,564	-1,532	-1,791	-1,972	-1,425	-1,525
Mineral	-280	-379	-496	-573	-287	-308
Nonmineral	-1,284	-1,153	-1,294	-1,399	-1,138	-1,218
Services balance	-685	-581	-690	-673	-629	-615
Mineral (net)	-389	-390	-544	-444	-389	-413
Nonmineral (net)	-295	-191	-146	-229	-240	-202
Unrequited transfers (net)	86	130	166	197	228	174
Official	201	238	219	229	215	181
Private	-115	-108	-53	-32	13	-8
Capital account balance	-604	-757	68	53	-167	-123
Medium- and long-term loan disbursements	-663	-400	-196	189	-185	-391
Official (net)	-107	-115	-5	-76	-46	-10
Private capital flows (net)	-556	-285	-191	266	-139	-381
Foreign direct investment (net)	74	475	226	23	121	307
Commercial banks (net)	-11	-4	-12	-10	15	-2
Other (net)	-4	-827	49	-149	-118	-37
Exceptional financing	0	96	15	25	0	80
Errors and omissions	-86	-34	10	-19	-45	32
Overall balance	-97	154	382	-204	-189	42
Change in net international reserves (- increase)	97	-154	-382	204	189	-42
Gross official reserves	41	-168	-318	206	194	-18
IMF (net)	-31	34	3	0	-4	-23
Purchases	0	50	3	0	0	0
Repurchases	-31	-16	0	0	-4	-23
Other foreign liabilities	87	-19	-67	-1	-1	-2
Financing gap	0	0	0	0	0	0
Memorandum items:						
Current account (in percent of GDP)	11.1	18.4	5.5	-5.3	0.6	1.5
Mineral	22.3	27.9	14.1	6.3	14.7	19.8
Nonmineral	-11.2	-9.5	-8.6	-11.6	-14.1	-18.3
Net international reserves						
(In millions of U.S. dollars)	-3	150	532	328	139	181
Gross official reserves (end-year)						
(In millions of U.S. dollars)	99	268	586	380	187	204
(In months of nonmineral imports)	0.9	2.8	5.4	3.3	2.0	2.0
Debt-service ratio (in percent of goods and nonfactor services exports)	32.8	25.1	17.7	17.0	22.5	27.6
Debt-to-GDP ratio (in percent)	42.6	44.9	36.3	43.3	51.8	45.3

Sources: Bank of Papua New Guinea; and Fund staff estimates.

Table 22. Papua New Guinea: Exports of Major Commodities, 1994-99

	1994	1995	1996	1997	1998	1999
<b>Copper</b>						
Value (US\$ million)	365.563	591.2	293.7	177.0	192.1	225.3
Volume (thousands of tonnes)	207.2	215.7	127.7	77.8	136.9	179.9
Unit value (US\$ per tonne)	1,764.3	2,740.6	2,299.6	2,275.1	1,403.5	1,252.3
(US cents per pound)	80.0	124.3	104.3	103.2	63.7	56.8
<b>Gold</b>						
Value (US\$ million)	698.8	658.2	587.0	501.4	596.6	606.4
Volume (tonnes)	55.8	55.2	46.9	44.3	58.2	63.0
Unit value (US\$ per kilogram)	12,523.1	11,924.2	12,516.2	11,319.1	10,250.7	9,625.1
(US\$ per ounce)	389.5	370.9	389.3	352.1	318.8	299.4
<b>Petroleum</b>						
Value (US\$ million)	699.2	648.5	814.9	594.6	395.1	542.2
Volume (thousands of barrels)	43,456.3	36,990.2	39,308.0	27,972.2	28,033.6	30,646.2
Unit value (US\$ per barrel)	16.1	17.5	20.7	21.3	14.1	17.7
<b>Silver</b>						
Value (US\$ million)	10.3	10.3	7.7	5.7	7.5	8.3
Volume (tonnes)	71.0	63.0	46.9	35.0	42.9	54.1
Unit value (US\$ per kilogram)	144.7	164.0	163.4	163.5	175.6	153.7
(US\$ per ounce)	4.5	5.1	5.1	5.1	5.5	4.8
<b>Logs</b>						
Value (US\$ million)	480.7	342.2	352.7	285.6	74.9	100.2
Volume (thousands of cubic meters)	2,943.9	2,512.5	2,607.4	2,375.9	1,066.9	1,312.3
Unit value (US\$ per cubic meter)	163.3	136.2	135.3	120.2	70.2	76.4
<b>Coffee</b>						
Value (US\$ million)	203.8	168.1	144.4	227.4	231.5	163.6
Volume (thousands of tonnes)	64.7	55.1	62.3	59.2	83.5	79.2
Unit value (US\$ per tonne)	3,149.6	3,050.1	2,317.8	3,840.9	2,772.2	2,065.5
(US cents per pound)	142.9	138.4	105.1	174.2	125.7	93.7
<b>Cocoa</b>						
Value (US\$ million)	28.9	37.4	50.2	51.1	39.7	33.2
Volume (thousands of tonnes)	26.0	30.6	41.0	38.6	26.1	29.0
Unit value (US\$ per tonne)	1,109.8	1,221.3	1,225.2	1,324.9	1,521.0	1,144.1
<b>Palm oil</b>						
Value (US\$ million)	77.1	111.4	138.4	144.5	132.1	132.5
Volume (thousands of tonnes)	230.8	186.6	267.0	274.9	213.0	253.8
Unit value (US\$ per tonne)	334.1	597.1	518.4	525.6	620.3	522.2
<b>Copra</b>						
Value (US\$ million)	14.6	21.5	37.2	24.9	18.6	26.1
Volume (thousands of tonnes)	50.3	64.2	99.2	90.3	58.1	63.5
Unit value (US\$ per tonne)	290.8	334.4	374.8	276.0	320.3	410.7
<b>Copra oil</b>						
Value (US\$ million)	20.0	23.3	39.0	35.7	33.9	37.6
Volume (thousands of tonnes)	34.7	33.1	49.6	48.6	53.2	50.3
Unit value (US\$ per tonne)	576.4	703.0	786.3	733.6	636.6	747.0
<b>Tea</b>						
Value (US\$ million)	6.2	6.9	9.6	7.3	9.2	7.5
Volume (thousands of tonnes)	3.4	4.2	9.3	6.5	6.6	8.2
Unit value (US\$ per tonne)	1,830.0	1,640.0	1,036.2	1,116.3	1,391.4	908.8
(US cents per kilogram)	183.0	164.0	103.6	111.6	139.1	90.9
<b>Rubber</b>						
Value (US\$ million)	1.7	3.1	3.1	4.5	3.5	2.0
Volume (thousands of tonnes)	3.4	2.7	2.8	4.4	4.9	3.7
Unit value (US\$ per tonne)	511.0	1,160.7	1,111.1	1,030.7	723.9	530.0
(US cents per pound)	23.2	52.7	50.4	46.8	32.8	24.0
<b>Other</b>						
Value (US\$ million)	150.2	208.2	125.4	126.0	114.5	134.6
<b>Total exports (US\$ million)</b>						
	2,757.0	2,830.1	2,603.2	2,185.7	1,849.3	2,019.4
<b>Minerals and petroleum</b>						
	1,863.3	2,056.0	1,776.7	1,328.3	1,239.4	1,438.5
<b>Nonmineral</b>						
	893.7	774.2	826.6	857.4	609.9	580.9

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

Table 23. Papua New Guinea: Direction of Trade, 1994-99

(In percent of total)

	1994	1995	1996	1997	1998	1999
(Destination of exports)						
Australia	34.5	32.5	36.3	40.6	27.8	38.1
People's Republic of China	5.3	2.7	3.5	2.3	1.9	4.0
Germany	8.1	11.2	8.1	7.2	10.5	9.6
Hong Kong, SAR	1.3	1.5	1.2	2.5	1.0	0.2
Japan	27.7	24.9	21.5	13.1	19.4	16.9
Korea	0.0	7.6	5.4	3.2	6.9	5.8
Netherlands	1.2	1.2	0.6	2.1	1.2	1.6
New Zealand	3.2	1.8	1.5	0.4	1.0	0.2
Singapore	0.7	1.0	1.2	2.8	1.6	0.5
United Kingdom	3.3	5.2	5.9	9.4	5.1	3.7
United States	4.5	1.8	3.2	8.7	7.8	6.6
Other	10.2	8.7	11.4	7.8	16.0	12.6
Total	100	100	100	100	100	100
(Origin of Imports)						
Australia	49.8	51.7	51.0	51.2	54.1	53.5
People's Republic of China	1.1	1.2	1.8	0.1	1.6	2.6
Germany	1.2	1.5	1.6	0.6	1.9	0.6
Hong Kong, SAR	2.8	2.3	2.2	2.4	1.5	1.4
Japan	12.8	9.3	10.1	7.3	8.9	5.6
Korea	0.0	0.0	0.0	0.4	0.0	2.2
Netherlands	0.2	0.8	1.0	0.6	0.3	0.1
New Zealand	4.2	3.8	4.3	3.8	4.3	4.1
Singapore	12.2	13.2	10.2	7.6	10.1	12.9
United Kingdom	1.0	1.3	0.8	0.7	0.9	1.1
United States	4.7	3.9	4.5	13.6	5.5	3.6
Other	10.0	11.1	12.3	11.6	10.8	12.3
Total	100	100	100	100	100	100

Source: Data provided by the Papua New Guinea authorities.



Table 24. Papua New Guinea: Services and Transfers, 1994-99

(In millions of U.S. dollars)

	1994	1995	1996	1997	1998	1999
Services balance (net)	-684.7	-580.6	-689.7	-673.4	-629.0	-615.1
Factor services	-405.3	-266.1	-461.0	-323.7	-265.7	-274.9
Interest	-162.0	-82.7	-92.6	-77.4	-87.6	-94.6
Receipts	11.4	18.4	26.5	39.9	19.7	17.2
Mineral	6.8	12.8	20.6	12.4	11.4	10.7
Nonmineral	0.6	0.5	0.5	4.5	0.5	3.0
Official	4.1	5.1	5.4	23.0	7.8	3.5
Payments	-173.4	-101.1	-119.1	-117.3	-107.3	-111.8
Mineral	-69.6	-16.7	-37.3	-17.2	-35.0	-45.2
Nonmineral	-42.6	-12.6	-21.4	-24.1	-20.2	-9.1
Official	-61.2	-71.8	-60.4	-76.0	-52.1	-57.5
Concessional	-32.0	-54.2	-46.7	-60.8	-40.6	-44.9
Nonconcessional	-27.0	-17.0	-11.1	-15.2	-8.7	-10.6
IMF charges	-2.2	-0.6	-2.6	0.0	-2.8	-2.1
Dividends	-184.2	-136.4	-322.9	-204.5	-149.0	-156.8
Receipts	0.1	4.1	0.1	0.9	1.0	5.6
Mineral	0.0	0.0	0.0	0.0	0.0	0.0
Nonmineral	0.1	4.1	0.1	0.9	1.0	5.6
Payments	-184.3	-140.5	-323.0	-205.4	-150.0	-162.4
Mineral	-145.0	-108.3	-265.1	-122.2	-99.8	-114.7
Nonmineral	-39.3	-32.2	-57.9	-83.2	-50.2	-47.7
Other factor service payments	-59.1	-47.0	-45.5	-41.8	-29.1	-23.5
Nonfactor services	-188.5	-173.0	-155.3	-304.4	-315.3	-283.9
Freight, insurance, and travel receipts	71.5	63.5	49.6	31.7	19.3	16.9
Travel payments	-70.1	-58.3	-59.3	-64.5	-40.3	-42.9
Mineral	-4.8	-2.7	-4.2	-11.0	-3.8	-1.8
Nonmineral	-65.3	-55.6	-55.1	-53.5	-36.5	-41.1
Other	-189.9	-178.2	-145.6	-271.6	-294.3	-257.9
Receipts	91.5	206.9	305.6	344.4	245.8	231.3
Mineral	32.4	46.9	94.6	109.4	119.7	96.0
Nonmineral	59.1	160.0	211.0	235.0	126.1	135.3
Payments	-281.4	-385.1	-451.2	-616.0	-540.1	-489.2
Mineral	-118.3	-180.1	-279.2	-370.6	-333.3	-301.4
Nonmineral	-163.1	-205.0	-172.0	-245.4	-206.8	-187.8
Other	-90.9	-141.5	-73.4	-45.2	-48.0	-56.3
Unrequited transfers	85.8	130.3	166.0	196.9	228.0	173.9
Official	200.7	238.1	219.0	229.0	215.4	181.5
Receipts	200.7	238.1	219.0	229.0	215.4	181.5
Australia budgetary support	159.7	144.0	125.0	92.7	78.2	22.0
Project and commodity aid	41.0	57.3	94.0	131.3	137.2	154.4
Other grants	0.0	36.8	0.0	5.0	0.0	5.1
Payments	0.0	0.0	0.0	0.0	0.0	0.0
Private	-114.9	-107.8	-53.0	-32.1	12.6	-7.6
Receipts	59.4	66.5	51.7	70.3	83.0	61.8
Payments	-174.3	-174.3	-104.7	-102.4	-70.4	-69.4

Sources: Bank of Papua New Guinea; and Fund staff estimates.

Table 25. Papua New Guinea: External Debt Outstanding, 1994-99

	1994	1995	1996	1997	1998	1999
(In millions of U.S. dollars)						
Government sector	1,387.2	1,367.8	1,377.3	1,325.8	1,280.1	1,350.5
Concessional	1,100.0	1,112.3	1,143.6	1,180.7	1,162.5	1,168.1
Nonconcessional	287.1	255.4	233.7	145.1	117.6	182.5
Central bank	102.6	117.4	53.7	52.3	47.6	23.0
IMF	13.6	47.3	50.3	50.3	46.2	23.3
Other	89.0	70.0	3.4	2.0	1.4	-0.3
Private sector	791.2	587.9	465.0	757.2	651.3	272.1
Mineral	414.2	100.3	17.0	291.0	251.1	162.4
Nonmineral	377.0	487.6	448.0	466.2	400.2	109.7
Total	2,281.0	2,073.0	1,896.0	2,135.3	1,979.0	1,645.6
(In percent of GDP)						
Government sector	25.9	29.6	26.4	26.9	33.5	37.2
Concessional	20.5	24.1	21.9	24.0	30.4	32.2
Nonconcessional	5.4	5.5	4.5	2.9	3.1	5.0
Central bank	1.9	2.5	1.0	1.1	1.2	0.6
IMF	0.3	1.0	1.0	1.0	1.2	0.6
Other	1.7	1.5	0.1	0.0	0.0	0.0
Private sector	14.8	12.7	8.9	15.4	17.0	7.5
Mineral	7.7	2.2	0.3	5.9	6.6	4.5
Nonmineral	7.0	10.6	8.6	9.5	10.5	3.0
Total	42.6	44.9	36.3	43.3	51.8	45.3

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

Table 26. Papua New Guinea: External Debt Service, 1994-99

(In millions of U.S. dollars)

	1994	1995	1996	1997	1998	1999
Government sector	210.0	240.9	153.2	220.3	147.5	145.9
Principal	151.0	169.7	95.4	144.3	98.2	90.5
Interest	59.0	71.2	57.8	76.0	49.3	55.4
Concessional	88.4	114.2	114.3	116.6	111.3	120.3
Principal	56.4	60.0	67.6	55.7	70.7	75.4
Interest	32.0	54.2	46.7	60.8	40.6	44.9
Commercial	121.6	126.7	38.8	103.7	36.2	25.7
Principal	94.6	109.7	27.8	88.5	27.6	15.1
Interest	27.0	17.0	11.1	15.2	8.7	10.6
Private sector	714.5	522.0	368.9	216.4	321.5	456.1
Principal	602.3	492.7	310.2	175.1	266.3	401.8
Interest	112.2	29.3	58.7	41.3	55.2	54.3
Mineral sector	611.1	465.3	206.9	130.7	185.5	401.4
Principal	541.5	448.6	169.6	113.5	150.5	356.2
Interest	69.6	16.7	37.3	17.2	35.0	45.2
Nonmineral sector	103.4	56.7	162.0	85.7	136.0	54.7
Principal	60.8	44.1	140.6	61.6	115.8	45.6
Interest	42.6	12.6	21.4	24.1	20.2	9.1
Central bank	33.5	16.5	2.6	0.0	6.9	24.9
Repurchases from IMF	31.3	15.9	0.0	0.0	4.1	22.8
IMF charges	2.2	0.6	2.6	0.0	2.8	2.1
Total	958.0	779.4	524.7	436.7	475.9	626.9
Principal	784.6	678.3	405.6	319.4	368.6	515.1
Interest	173.4	101.1	119.1	117.3	107.3	111.8

Sources: Data provided by the Papua New Guinea authorities; and Fund staff estimates.

Table 27. Papua New Guinea: Official International Reserves, 1994-99

(In millions of U.S. dollars; unless otherwise indicated)

	1994	1995	1996	1997	1998	1999
Net international reserves	-3.1	150.4	532.3	328.0	138.9	181.4
Gross official reserves	99.5	267.8	585.9	380.3	186.5	204.3
Gold	2.4	2.1	21.2	21.2	21.2	21.2
SDR	0.1	0.7	0.1	0.1	0.1	0.0
Foreign exchange	96.9	264.9	564.6	359.0	165.2	183.1
IMF position	0.1	0.1	0.1	0.1	0.1	0.1
Foreign liabilities	102.6	117.4	53.7	52.3	47.6	23.0
Fund credit	13.6	47.3	50.3	50.3	46.2	23.3
Other	89.0	70.0	3.4	2.0	1.4	-0.3
Memorandum items:						
Gross official reserves						
(In months of nonmineral imports)	0.9	2.8	5.4	3.3	2.0	2.0

Sources: Bank of Papua New Guinea; and Fund staff estimates.

Table 28. Papua New Guinea: Major Mineral and Energy Developments

Province	N. Solomons	Western	Milne Bay	Morobe	New Ireland	Enga		Southern Highlands		
Location	Bougainville 1/	Ok Tedi	Misima	Hidden Valley	Lihir	Porgera 2/	Mt. Kare	Katubu	Hides 2/ Gobe (Main)	
Construction commencement	1969	1981	1988		1995	1990	1991	1991	1990	1995
Production commencement	1972	1984	1989	1988	1997	1990	1991	1992	1991	1997
Investment (millions of kina)	297	1,137	200	200	625	1,077	20	910	55	450
Shareholders 3/ (Shares in percent)	CRA (54) PNG (19)	BHP (60) PNG (20) German Consortium (20)	Placer (80) PNG (20)		Southern Gold (23) Niugini Mining (17) MRDC (10) Orogen (7)	Placer (25) Goldfields (25) Highlands (25) MRDC (10) Orogen (15)	Landowners (100)  JPNGP (5)	BP (19) Chevron (19) Mobil (16) BHP (10)	BP (95) Oil Search (5)	Chevron (19) Mobil (16) BHP (10) Oil Search (27) Orogen (21)
Reserves										
Ores (millions of tons)	675	410	62	23	170	58	24			
Oil (millions of barrels)								198		47
Condensate (millions of barrels)								65		
Gas (billions of cubic feet)								1,730	2,200	Large
Mine life (years)	26	21	10	11	over 25	20	3	11	19 4/	20
Average production per annum										
Gold (tons)	17	6	9	6	15	15	51			
Copper (tons)	163,520	135,000								10-20
Silver (tons)	42		62					20		
Gas (millions of cubic feet)									4	

Sources: Australian International Development Assistance Bureau; Papua New Guinea Chamber of Mines and Petroleum; and Orogen prospectus.

1/ Production suspended.

2/ From December 1991, Hides gas generated power for Porgera gold mine.

3/ MRDC is the government-owned Mineral Resources Development Corporation. Orogen is the recently formed company with 51 percent government ownership and 49 percent private ownership. JPNGP is Japan PNG PNG is the Papua New Guinea Government.

4/ Refers to length of current contract; potential life of a field is 250 to 500 years.

**PAPUA NEW GUINEA: TAX SUMMARY**  
(As of August 2000)

**I. DIRECT TAXATION**

**A. Taxation of Individuals**

**General principles**

- Resident individuals are taxed on global income from all sources, subject to double-tax treaties. Residence is defined as physical presence in Papua New Guinea for more than six months out of a given tax year.
- Nonresident individuals are liable for tax only on income derived from sources in Papua New Guinea.
- The expenses of earning income are fully deductible.
- Interest income on long-term bonds is exempt from income tax. Dividends paid by the Investment Corporation Fund to a resident shareholder are also exempt from income tax.
- There are two separate types of assessment: (i) a fortnightly salary or wages tax assessment; and (ii) an assessment on an annual basis for nonsalary or wages income.
- The tax year coincides with the calendar year.

**Tax rates**

*Resident individuals*

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Taxable Income (Kina)	Tax Levied (Kina)	Tax Rate on Excess (Percent)
4,000	Nil	10
5,000	100	20
10,000	1,100	30
20,000	4,100	35
60,000	18,100	37
80,000	25,500	42
100,000	33,900	47

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*Nonresident individuals*

Taxable Income (Kina)	Tax Levied (Kina)	Tax Rate on Excess (Percent)
Nil	Nil	10
2,000	200	20
7,000	1,200	30
17,000	4,200	35
60,000	19,250	37
80,000	26,650	42
100,000	36,050	47

**B. Taxation of Companies**

**General principles**

- A resident company is taxed on its global income from all sources. A company is considered a resident for tax purposes if it is incorporated in Papua New Guinea or has its management in Papua New Guinea.
- Nonresident companies pay tax only on Papua New Guinea-sourced income.
- Taxable income generally corresponds to accounting income.
- Tax years generally correspond to calendar years, unless there is sufficient reason to deviate from that rule; for example, in case the parent company has a different tax year.
- Interest income on long-term bonds is exempt.
- Business losses can be carried over for up to seven years; they cannot be carried back.
- Income tax assessed on companies has been payable in three installments, falling due March 31, June 30, and September 30 in the year following the year of income. From 1999 to 2002, payments for nonmining and petroleum companies will be advanced so that they pay taxes on the current year's income. These payments will be phased in over four years, and will be paid one month after the tax payments for the previous year's income.
- Mining and petroleum companies are subject to special taxation arrangements (see tabulation).

- A number of tax incentive schemes are operational, including a ten-year tax exemption for companies that establish themselves in one of 41 least developed districts.

**Tax rates**

Industry	Resident Taxation	Nonresident Taxation
Nonmining	25 percent plus 17 percent DWT <sup>1</sup>	48 percent
Mining and petroleum		
Mining	35 percent plus 17 percent DWT <sup>2</sup>	48 percent
Petroleum	50 percent	50 percent

<sup>1</sup>DWT (dividends withholding tax) is payable on: (i) dividends paid by a company; (ii) dividends derived by the company from sources outside Papua New Guinea; and (iii) certain deemed dividends.

<sup>2</sup>The 35 percent rate applies to larger mining companies operating under a special mining lease. Smaller companies operating under a general mining lease are subject to the 25 percent rate.

**Additional profit tax (APT)**

In the case of mining income derived pursuant to a Special Mining Lease and petroleum income where the rate of income exceeds a designated rate (20 percent for mining, 27 percent for petroleum), additional profit tax is payable with the rate of 35 percent for mining, 50 percent for petroleum, but only after a particular investment is fully recouped. No revenue has been collected under the APT except one year when Bougainville Copper Ltd. made a payment.

**Dividend withholding tax**

A dividend withholding tax of 17 percent is applicable to all dividends paid by resident companies and received by resident companies from sources outside of PNG. Dividend withholding tax on dividends paid to nonresidents is a final tax.

**Interest withholding tax**

An interest withholding tax of 15 percent was introduced in 1999. Interest withholding tax on interest paid to nonresidents is a final tax. Interest paid by mining and petroleum companies to nonresident financial institutions is exempt.



## II. INDIRECT TAXATION

### A. Import Duties

#### General principles

- The Harmonized Commodity Description and Coding System (HS Tariff) was adopted in January 1991. The 1995 revision of the code was adopted by Papua New Guinea (PNG) in 1996. PNG became a member of the World Customs Organization in 1998, and is also implementing the WTO agreement on Customs Valuations. Preshipment inspections are carried out by a private contractor since 1997.
- All imports are dutiable irrespective of country of origin, except for a preferential arrangement among members of the Melanesian Spearhead Group, and a bilateral arrangement with Fiji.
- A fundamental seven-year tariff reform program became effective in July 1999, which rationalized the tariff structure, and set a schedule for the phased reductions of tariffs. The reform also removed a temporary 1.5 percent import duty surcharge instituted in 1998. There are four (previously six) major ad valorem tariff rates (0 percent, 30 percent, 40 percent, 55 percent) and some minor specific tariff rates. In addition to tariffs, VAT of 10 percent, and if applicable excise taxes that also apply to domestic goods, are charged.
- Under the tariff reform program, tariff rates will be reduced in three equal cuts (effective in 2001, 2003, and 2006 respectively) of five percentage points to 15, 25, and 40 percent without exceptions by 2006. PNG bound its entire tariff schedule during the Uruguay Round.

#### Tariff structure

Tariff Category	Tariff Rate	Tariff Rate Prior to July 1999
Free	0	0
Input rate	Abolished	5
Basic rate	Abolished	11
Intermediate rate	30	40
Protective rate	40	55
Prohibitive rate	55	75-125

The descriptions of the tariff categories are as follows:

Duty free items. 77 percent of all lines fall into this category.

Intermediate rate (30 percent) items. Intermediate goods.

Protective rate (40 percent) items. Goods that are produced, or potentially can be produced, in Papua New Guinea and are seen as requiring a level of protection.

Prohibitive rate (55 percent) items. These include vegetables and fruits, beer, cigarettes and cigars, veneer and plywood, and sugar. Tariffs for some of these products (sugar, plywood, and veneer) will be higher than the prohibitive rate during the phased reduction, but set at the general rate in 2006. There is a minimum specific tariff on beer, spirits, cigarettes, and certain tobacco products. Used cars face a tariff of 100 percent.

## B. Excise Taxes

### General principles

- Excise taxes are applied to alcoholic beverages (beer, wine, and spirits), cigarettes, other manufactured tobacco products, and fuels. Since the 1999 tax and tariff reform, excise taxes also apply to a few products that were previously protected by high tariffs like new motor vehicles.
- In the past, excise taxes were levied only on domestically manufactured goods. From 1996, the excise element of the tariff was separated from the import duty and made explicit. For imported goods excise taxes are applied in addition to any import duty and the VAT.

### Tax rates

Items	Excise Tax (Percent)
Beer	100
Wine	110
Spirits	200
Cigarettes	240
Smoking tobacco	40
Chewing tobacco	150
Gasoline	61 toea per liter
Diesel	6 toea per liter
Aviation gasoline, Jet-A1	2 toea per liter
Kerosene	0
Fuel oil	2 toea per liter
New motor vehicles	60
New luxury motor vehicles	110
Poker machines	150

### C. Export Duties

#### General principles

- Export duties are levied only on selected types of products; the duty varies depending on the product.
- Export duties are calculated on a f.o.b. basis and payable before shipment. A preshipment inspection system supplied by a private contractor is in place since 1997.

#### Tax rates

##### *Log export duties*

In the past, the export of logs was subjected to export duty at rates from 26 percent to 46 percent, depending on the species of tree concerned. In 1996 a new revenue system was introduced that features progressive marginal tax rates ranging from 15 percent up to 70 percent of log prices. In 1998, the marginal rate on logs with a world f.o.b. price of K 130 per cubic meter or less was reduced to zero, but the pre-1998 tax regime was reinstated in August 1999.

World f.o.b. Log Price (Kina/Cubic Meters)	Marginal Tax Rate (Percent)
0-90	15
91-110	30
111-130	50
131-150	55
151-200	60
>200	70

##### *Other export duties*

5 percent: Sea cucumbers; mineral ores and concentrates excluding gold, silver, and copper; and crocodile skins.

15 percent: Rattan (cane) when exported in primary form, and sandalwood.

### D. Sales Tax

A national value-added tax (NVAT) which was modeled after New Zealand's Goods and Services Tax was introduced in July 1999, which replaced the previous provincial sales taxes, and the basic import duties.

VAT has a uniform tax rate of 10 percent, with zero-rated exports and few exemptions. Exempted goods and services are mainly medical services, financial services, education services and supplies, fine metals, unprocessed logs, and public transportation fees.

All businesses with an expected turnover in excess of K 100,000 (\$38,000) must register for VAT; registration for other businesses is voluntary. It is expected that many businesses below the threshold will register to claim the credits.

VAT is levied on all imported goods irrespective of importer, with the exception of imports for aid projects and diplomatic missions. Refunds are primarily paid to the mining industry which exports virtually all its output, and to aid organizations for VAT on domestic purchases for registered zero-rated aid projects.

Some transitional rules are in place, in particular with respect to input credit for stocks purchased before July 1999. These rules are to expire partly in June 2000, and finally from April 2001.

### **E. Mining Levy**

A mining levy was introduced in July 1999, to capture the windfall gain of the mining industry from the introduction of the NVAT which resulted from the zero-rating of their exports in conjunction with the removal of basic import duties. Even though the mining levy was introduced in July 1999, it was already fundamentally amended in November 1999. The tax is levied on imports and deemed imports of the mining industry, and calculated as an excess tax of import duties owed at rates effective in June 1999 over current import duties.

## **III. OTHER TAXES**

### **A. Poker Machine Tax**

A poker machine tax was introduced in October 1996 as a general revenue measure, and last increased in April 2000. The Gaming Machine Act specifies the distribution of the turnover of gaming machines to all stakeholders.

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Recipient	Share (Percent)
National government	60
National government trust account (National Gaming Control Board)	8
Provincial government	6
Operators	4
Site owners	22

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### **B. Stamp Duties**

The national government imposes stamp duties on the execution of certain documents. The rates vary by type of document and range from K 0.10 for checks, to 5 percent of the value of a lease, and K 5,000 for mineral and petroleum exploration licenses.

### **C. Natural Resource Tax**

The national government imposes a base royalty of 2 percent of the net value of output from mining and petroleum projects in Papua New Guinea which is payable to landowners.

### **D. Departure Tax**

A departure tax of K 30 is payable by all persons departing Papua New Guinea.

### **E. Land Tax**

Provincial governments are empowered to impose land taxes. However, this tax is difficult to implement and collect in a country where land ownership is often unclear and in dispute.

### **F. Social Security Taxes**

All companies employing 20 or more persons are required to participate in the retirement plans of the National Provident Fund (NPF). Industries may be exempt from participation in the NPF if they provide a proprietary pension plan with similar or more generous provisions. Under the NPF plan, employee contributions are deducted from gross basic salary at a minimum rate of 5 percent, while additional voluntary contributions may be made up to a total of 10 percent of gross salary. In addition, the employer contributes 7 percent of the employee's gross salary. Provident funds are subject to income tax.

### **G. Miscellaneous**

Capital gains taxes and gift taxes are not levied in Papua New Guinea. However, in some cases, stamp duties substitute for such taxes to some extent.