PNG’s economic trajectory: the long view

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Introduction

• Few economic time series available for PNG from Independence.
• Either they start at (or before) Independence and run out in the 2000s.
• Or they are current but only go back to the 2000s or 1990s.
• Those that are continuous are not always consistent
• This makes it difficult to do economic history
• There is a risk of losing the past
Examples of questions that can’t be answered now from available time-series

• Is PNG producing more coffee now than at Independence?
• Is the resource sector a bigger or smaller share of the economy than at independence?
• Has formal sector employment grown or fallen relative to population?
• Has government revenue risen or fallen as a share of GDP?
• Have interest rate spreads increased over time?
Objective

• Compile key economic time series that are at least internally consistent, and make them available for researchers, with transparent documentation.

• Use the time series to construct an economic narrative for PNG post-independence.
PNG Economic Database

- Population
- Production
- Employment and wages
- Fiscal indicators: expenditure, revenue and deficit
- Trade and BoP: exports and imports, and current account balance; FX and reserves
- Prices, monetary and financial data
- Data mainly from 1975-early 80s up to 2020
Main sources

• *Money and Banking* (BPNG, 2007)
• BPNG QEB
• NSO and budgets
• World Bank WDI
• Budget data base
Limitations

• Additional sectoral GDP, disaggregated CPI and monetary data to be added.
• No GNI
• No GDP by income or by expenditure
Sections

1. Introduction
2. Population
3. GDP
4. Commodity Production
5. Employment
6. BoP and XR
7. Fiscal
8. Monetary policy and banking
9. Conclusion
Population
Population: 3.1-fold increase
GDP and non-resource GDP
Growing resource sector dependency

The ratio of resource to total GDP, measured in current prices; trend line added.
Little change in economic structure otherwise.

The share of various sectors in non-resource GDP, measured in current prices.

Agriculture, forestry and fishing
Manufacturing
The choice of deflator matters
Especially in the 1990s

Ratio of CPI to GDP deflator
Real GDP growth

- Oil production starts
- Strong copper and coffee production
- Ok Tedi mine opens
- Porgera opens
- Panguna mine closes
- Start of PNG LNG construction
- Start of PNG LNG production
- Start of the resources boom
- Drought
- Global financial crisis
- Highlands earthquake
- COVID pandemic
- BOP crisis; Kina floated
GDP and non-resource GDP per capita show overall slow growth in the post-independence era
Non-resource GDP per capita can be used to divide PNG’s economic history post-independence into four periods.
Commodity production
We have good data on commodity production (exports) – a big chunk of GDP

Commodity exports as a percentage of GDP (current prices)
Huge shifts in the composition of commodity exports

The composition of commodity exports by value (current prices)
Most non-resource commodities show little growth in volumes

Volumes exported of copra, copra oil, rubber, tea, cocoa and coffee (indices=1 in 1976)
Three important exceptions

Notes: Indices set equal to one in 1976 for palm oil and logs, and one in 1990 for marine products.
Changing composition of non-resource commodities

Value share, current prices

- Coffee
- Cocoa
- Copra
- Palm oil
- Marine products
- Logs
- Copra oil
- Tea
- Rubber
- Other agricultural products
Gold is the post-independence success story of the PNG resources sector

Volume indices set equal to one in 1975 for copper and gold and in the first year of production for other commodities.
But LNG now dominates
Commodity prices turned around for PNG since turn of the century

Source: IMF Commodity Terms of Trade
But resource prices have done better than non-resource prices

Unit price indices with 1976=1
Bottom line: resource exports have grown much faster than other commodities over a sustained period.
Employment
Formal employment has not kept up with population
Broad-based employment growth during resource boom
Urban minimum wage half its value at independence
Trade, BoP and FX
Exports at record high; imports at record low
90s was the decade of XR depreciation
Real exchange rate still at post-independence, resource-boom high
FX reserves: are being protected now, unlike in the 90s, via foreign exchange rationing
Fiscal
Government spending and revenue both volatile; revenue on overall downward trend
Aid and resource revenue on negative trend

% GDP
Non-resource taxation stable as share of non-resource GDP; resource revenue low relative to growing resource GDP
Deficits in most years, but until recently moderate
Debt situation now similar to that of late 90s

![Graph showing debt situation]
Though more reliance on domestic debt now
Revenue volatility due to failure of revenue stabilisation efforts

Resource revenues and trust fund balances (% GDP)
Monetary policy and banking
Inflation mainly moderate; linked in part to exchange rate depreciation
Banking sector deposit-based and is increasingly focused on lending to government
Excess liquidity.
Lending spread much higher than at independence
Conclusion
Conclusion: 15-point summary

1. Every year PNG’s population now increases by 230,000, three times the annual absolute increase at independence.
2. PNG has become more resource dependent over time.
3. Using the official GDP deflator, GDP per capita has grown at an average rate of 0.9% since independence; and the more useful indicator of non-resource GDP per capita has grown at an average rate of 1%.
4. Non-resource GDP per capita can be used to divide PNG’s post-independence history into four periods: stability but stagnation (1975-1988); unstable growth (1989-2002); the resource boom (2003-2013); the quiet bust (2014-current).
5. At independence, PNG’s commodity exports were divided fairly evenly between resources and agricultural commodities. Now 90% are from the resources sector.
Conclusion (cont.)

6. Outside of the resources sector, palm oil, logging, marine and non-traditional agricultural products have shown significant growth.

7. With the exception of the boom period, formal sector employment has grown slowly, and overall has not kept up with population growth.

8. Adjusting for inflation, the minimum wage paid to urban workers is half of its independence level.

9. The nominal Kina-USD exchange rate is only one-quarter of its value at independence, but the real effective exchange rate is back at close to its independence level.

10. The import/GDP ratio is at its lowest level in the independence era, reflecting extensive exchange rate rationing.
Conclusion (cont.)

11. The revenue/GDP ratio is on a downward trend.
12. Efforts to stabilise resource revenues have not been sustained or successful.
13. Government debt levels are at historically high levels in PNG, following the record deficits of recent years.
14. At independence, government debt was mainly financed off-shore; now it is mainly financed on-shore.
15. Banks have also shifted away from lending to the private sector towards the role of government financiers. And lending spreads have increased. These two trends have resulted in a highly profitable banking sector.
Finally

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• Look out for the launch of the PNG Economic Database.

• Check out www.devpolicy.org for more on PNG economics, and subscribe there to our monthly PNG newsletter.