Policy in Papua New Guinea: releasing the golden bullet

Martin Davies

Washington and Lee University

and

Development Policy Center, Crawford School of Public Policy,

Australian National University

Outline of paper

- short run: manage fiscal and balance of payments situations
- medium run: focus fiscal spending on investment
- long run: labor productivity determines welfare

- Discuss today
 - recent economic shocks and policy direction
 - balance of payments
 - fiscal position

PNG Economy

- small open resource-rich economy
 - challenge of data collection, other information: rely on anecdotal evidence
- Independent, inflation targeting central bank
 - setting interest rates to control inflation, then growth
 - exchang rate: adjustable peg vs managed float
- capital mobility is low
 - inflows or outflows don't respond to interest rate differentials (BPNG, IMF)
- marginal propensity to import is high
 - government: 0.6 0.7
 - private consumers: high but?

PNG Economy: shocks

Demand Side

- Investment boom (LNG) then contraction (2011-12 then 2013-14)
- Fiscal expansion (2013-14)
 - offset \downarrow I
 - spending ahead of LNG receipts
- Exports boom (2014)
- Revaluation (and then subsequent stepwise devaluation) (mid 2014)
- Terms of trade shock (oil/gas price fall) (late 2014)

Supply side

- Oil price fall (late 2014)
- Increase in minimum wage (2014)

Macro Policy in PNG

- In an open economy, policy has two goals
 - internal balance: producing at full employment $(Y = Y_f)$
 - over-employment $(Y > Y_f)$: increase in inflation
 - underemployment $(Y < Y_f)$: decrease in inflation
 - external balance: current account is near zero: *CA* = 0
 - is large current account *deficit*: foreign investors question ability to repay debt. *Is CA deficit bad?*
 - Two instruments:
 - exchange rate (e) expenditure switching
 - Fiscal policy (G) expenditure changing

Internal Balance

• Internal balance: $Y=Y_f$: $Y_f = C + I + G + EX(e) - IM$

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aggregate expenditure = full employment
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consumption (C) + investment (I) + gov't spending (G) + exports (EX) – imports (IM) = Y_f
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exchange rate = e

Devaluation $\uparrow e \rightarrow$ our goods cheaper to foreigners $\rightarrow \uparrow export$ (EX)

- Increase in gov't spending: $(\uparrow G \rightarrow Y > Y_f)$ (output is above its full employment level)
- To restore internal balance: revaluation (↓e) → EP*/P → our goods more expensive to foreigners → ↓exports (EX) → ↓Y returns to Y_f

Internal Balance



External Balance

• External balance (CA = 0):

CA = Exports - Import = EX(e) - IM(Y) = 0

- \uparrow *G* increases aggregate expenditure \rightarrow \uparrow *income* (*Y*) \rightarrow \uparrow *imports* (*IM*) decreasing the current account (\downarrow *CA*)
- To restore external balance: devaluation ↑e → our goods cheaper to foreigners → ↑ exports (EX)

External Balance



Macroeconomic Goals



Zones of Economic Discomfort



 $(G^{\uparrow} \text{ or } T^{\downarrow})$

PNG: 2011-12: LNG Investment boom (个I)



PNG: 2013-14: end of Investment boom (\downarrow I)



 \downarrow I means higher G (or e) require to ensure $Y=Y_f$ so IB shifts right

PNG: 2014: increase in gov't spending (\uparrow G)



G

PNG: 2014: export boom (\uparrow EX)



 \uparrow EX means require higher G (which increases Y and IM) to ensure CA=0 so EB curve shifts right ¹⁵

PNG: mid-2014: revaluation (\downarrow e by 17%)



PNG: 2015: fiscal contraction ($\downarrow G$)



PNG: 2015: devaluation ($\uparrow e$) completing the square



Greece



G

Real exchange rate: 1990 - 2014



Source: P. Flanagan, 18 June 2015

Forex Market: Balance of Payments

what <u>exactly</u> is going on?

- BOP = Current Account + Financial Account
 - = (Exports Imports) + (Capital Inflows Capital Outflows)
 - = (Export + Capital Inflow) (Imports + Capital Outflows)

PNG BOP 2014 = Current Account (7083) + Financial Account (-7999) =- K872 bn

PNG: Market for Foreign Exchange



So where is the foreign exchange?

• Exports:

- GDP vs GNP: not owned by PNG fops
- partners aren't spending it in PNG
- Gov't: priority on debt repayment
- Tax receipts: accelerated depreciation: reduces tax payments

• Imports:

- big increase in G
- government high mpi: of every Kina spent, 60-70 toea on imports
- gov't finance via bond sales raised in Kina (domestic market)
 - sell bonds to foreigners

Export boom + Fiscal expansion (small or big) Mundell-Fleming model



Fall in oil prices: size of increase in G relative to export boom determines whether BOP surplus or deficit



Source: P. Flanagan, Pathways away from Crisis, 18 June 2015

Fiscal Situation

• deficit = Government Spending (G) - Tax (T) currently around 8% of GDP

circa 38% of GDP

- debt (B) to gdp (Y) ratio: d = B/Y
 - debt = sum of deficits over all time
- Debt dynamics: B grows at r Y grows at g
- with zero deficit: debt to GDP (d) grows at (r g) if g > r then debt/gdp is decreasing

MAGIC NUMBER: r - g

• the Troika forgot this!

Debt Dynamics

equation of motion

$$\Delta b = d + (r - g).b$$

change in debt/gdp ratio = primary deficit + (r-g).(current debt/gdp ratio)

- In 2014: *d* = 7.3% *g* = 8.4% *b* = 37.7%
- *debt/gdp* in 2015 if *r* = 5%: 43.7%
- *debt/gdp* in 2015 if *r* = *10%*: 45.6%

If deficit is 8% then to keep debt/gdp constant at 38% require r - g = 21% i.e. if r=5% then gdp must grow at 26% if deficit is 8% then to keep debt/gdp constant at 30% (FR Act) require r - g = 27%

Fiscal Policy adjustment

2015 and beyond

- lower energy prices here to stay
- planned cuts in G (expenditure)

	2015	2016	2017
deficit	-4.4%	-2.5%	0

cut expenditure 11% in 2016 and 15% in 2017

- expand adjustment time frame: remember r g
- with stable debt dynamics okay to allow debt/gdp to increase to facilitate adjustment
- Supplemental budget planned for July (?)

A Good Guide

- use GNP (or GNI) as a measure of size of economy
 - GDP (geographic) vs GNP (earned by country's fop)
- focus attention and policy on non-resource sector growth
 - poverty elasticity of mining sector growth relative to non-mining sector growth