Discussion of Klaus Adam *Government Debt and Optimal Monetary and Fiscal Policy*

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What it does…

- Considers how level of debt influences fiscal and monetary policy
- Model with four imperfections
- Distortionary taxation
- Monopoly Power
- Sticky Prices
- Noncontingent government Debt

What it finds…

- R1 : High levels of debt should lead to lower levels of government expenditure
- R2 : Stabilisation policy, especially response of taxes, depends on level of debt
- R3 : High levels of debt lead to higher “fiscal risk” and desire to reduce government debt – downward drift so less non-stationarity
- R4 : The downward drift and “fiscal risk” only picked up if use second order approximation

What it finds…

- R1 : High levels of debt should lead to lower levels of government expenditure

High levels of government debt reflect high excess burden of taxation. Is a wealth effect. Therefore level of government expenditure (welfare enhancing) is set below level of optimal first best

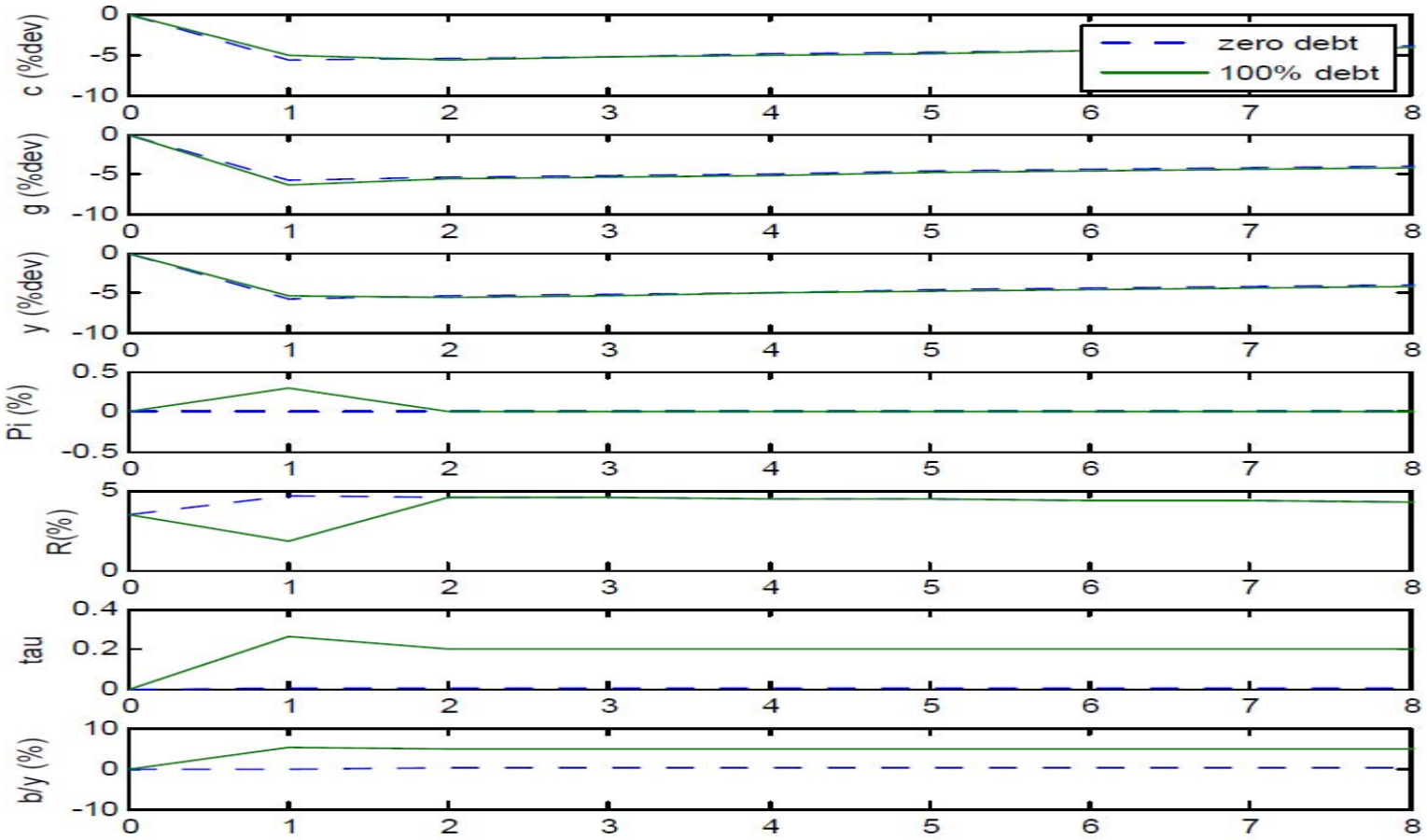
What it finds…

- R1 : High levels of debt should lead to lower levels of government expenditure

	priv. cons. (c)	hours (h)	gov. cons. (g)	taxes (τ)	welfare equiv. cons. variation
Zero debt	0.16	0.2	0.04	24%	**0.00%**
100% debt/GDP	0.1558	0.1944	0.0386	28.0%	**-5.58%**
Change wrt zero debt	-2.61%	-2.78%	-3.47%	+16.8%	
200% debt/GDP	0.1516	0.1888	0.0372	32.0%	**-11.0%**
Change wrt zero debt	-5.25%	-5.62%	-7.02%	+33.3%	
First best steady state					
-1076% debt/GDP	0.2	0.2530	0.0530	-20%	**+70.6%**
Change wrt zero debt	+25%	+26.5%	+32.5%	n.a.	

Welfare effects large

- R2 : Stabilisation policy, especially response of taxes, depends on level of debt



- R2 : Stabilisation policy, especially response of taxes, depends on level of debt

Alternative interpretation – interest rate manipulation. Actually little difference in behaviour of **g**. Instead government has one period debt which it has to roll over every period.

With positive debt can use this channel to manipulate interest rates and issue more debt. Lowers real interest rates , consumption slightly higher and so too is employment/output.

Frisch labour supply elasticity is lower so small peak in taxes. Higher debt follows random walk a la Barro.

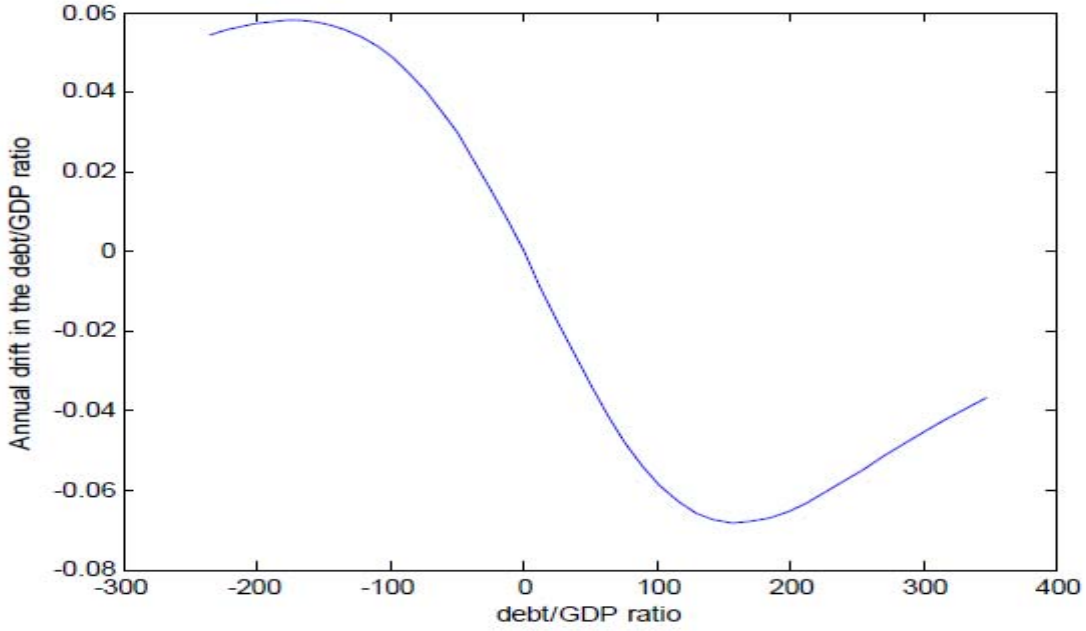
What it finds…

- R3 : High levels of debt lead to higher “fiscal risk” and desire to reduce government debt – downward drift so less non-stationarity

Tax rate depends on excess burden of taxation and tax revenue depends on tax rate multiplied by GDP. High debt means high excess burden of taxation

Therefore productivity shocks have bigger effect on fiscal position the larger is government debt. Government looks to lower debt when debt goes high to reduce this fiscal exposure

- R3 : High levels of debt lead to higher “fiscal risk” and desire to reduce government debt – downward drift so less non-stationarity



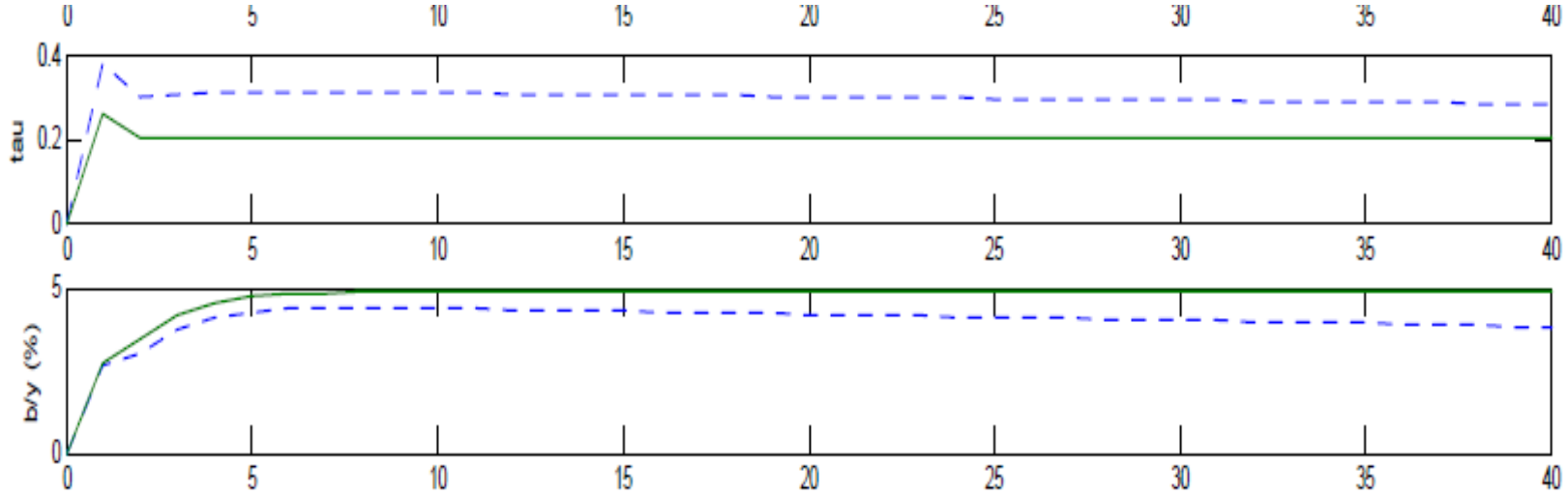
- R3 : High levels of debt lead to higher “fiscal risk” and desire to reduce government debt – downward drift so less non-stationarity

[Careful – IBC will imply a type of error correction on debt that will depend on rB]

Downward drift modest for persistent shocks

Same result would hold if heteroskedastic shocks (or MA) for productivity or government expenditure (adverse shocks higher volatility)

- R4 : The downward drift and “fiscal risk” only picked up if use second order approximation



- R4 : The downward drift and “fiscal risk” only picked up if use second order approximation

Models with incomplete bond markets have complex dynamics. Variety of non-stationarities depending on initial debt and threshold effects. Always contain a unit root component but additional complex ARMA type dynamics too

Definitely need at least second order approximations

Further Thoughts

- How strong is debt stabilisation effect?

The downward drift from fiscal risk is really small in main calibration. Not a pure unit root but unit root component very important. Still consistent with general message of incomplete markets – let debt take the strain and show long term swings in response to bad shocks

- Debt management

The debt stabilisation effect does have an impact on fiscal policy but if you could issue a short and long term bond this effect would be smaller. Could get the debt stabilisation but exploiting shifts in the yield curve across maturities

Further Thoughts

- Does paper "show recent increase in government debt has important implications for the optimal conduct of monetary and fiscal policy"?

The downward drift from fiscal risk is really small in main calibration.

Get a much stronger effect if debt strays near area of debt limits

Get a much stronger effect if higher debt leads to higher cost of borrowing

Further Thoughts

- "There is a monetary authority which controls the nominal interest rates on short-term nominal bonds through open market operations"
- Struck by how events overtaking research. Debt management matters. Debt management important role to support fiscal policy. Monetary policy about affecting more than one interest rate through broader open market operations
- Not a channel this model can look at

Conclusion

- As you would expect from author it's a good paper and an interesting one
- There are important non-stationarities that aren't as simple as just a random walk in debt
- We need to understand these feedbacks from level of debt on monetary and fiscal policy. This is a good model to make a start
- But if interested in high debt levels then need to focus on more than one maturity and interaction monetary and fiscal policy. Striking how transaction costs/liquidity effects constrict fiscal policy rather than other way around