Peterson Institute for International Economics

Comments on "Federal budget policy with an aging population and persistently low interest rates"

by Doug Elmendorf and Louise Sheiner

Olivier Blanchard

Brookings February 5, 2016

Should the US debt to GDP ratio be decreased?

An incredibly ambitious paper. But:

An incredibly difficult question, because of the many dimensions:

- Intergenerational redistribution
- Tax distortions and tax smoothing
- Dynamic efficiency/inefficiency
- Liquidity of public debt
- Short run effects. ZLB.

Implication: Not sure any of what follows is right…

The right objective function

Max EPDV(Utility) st
Intertemporal budget constraint.

Why this (apparently obvious) remark?

- Temptation to focus on some ``desirable'' debt path
- Whether or not good for welfare

Example: Debt management

- Treasury issuing long bonds when Fed does QE
- Good for Treasury. Not good for welfare

Some schizophrenia in the paper

- When discussing aging, two approaches.

- Ramsey approach. How to max EPDV(C) [not EPDV(U)].

  Derive path of consumption. Do not take the step from consumption to debt path. But could/should.

- "Fiscal (accounting) approach". Focus on IBC. Look at paths of deficits which stabilize debt.

- How do we reconcile the two? Integrate.

When does the fiscal approach dominate?

- Whether the IBC holds should be thought of in probabilistic terms:

- Probability that, given tax distortions and political constraints, debt becomes unsustainable.

- Right tool: Stochastic DSA. (Fiscal stress tests)
  - What contingencies: Recessions, financial crises?
  - Pandemics, Nuclear terrorist attacks. How to treat them?
- If probability exceeds some level, then reduce debt

Relevant for the US today? Less so than for Japan, or Europe. But probably.

Issue 1. Aging and Debt

Aging: Longevity versus fertility. Different implications

Objective function. EPDV(U) (different from EPDV(C))

Shock: Adverse shift in production function at T and after. So future generations worse off.

How does debt work? By decreasing capital accumulation.

So: Decrease debt before T (tighter fiscal policy), and leave more capital to future generations.

Aging and Debt (continued).

How much help can be given to future generations?

Not much, and it goes away fast. In Diamond model:

10% less debt, 10% more capital. If Cobb-Douglas and log,

Delta K(+1) = s alpha Delta K, s=.5, alpha=.7

Delta K= 10%, Delta K(+1) = 3.5%, Delta K(+2)=1%.

What if increased transfers/taxes (longevity/retirement) after T?

If lump sum taxes, no additional reason to decrease debt

If distortionary taxes, decrease debt before T.

Issue 2. What if MPK > g > r?

Reasonable to take the current configuration to be:

Dynamic efficiency is satisfied: EMPK>g

Rate on public debt, r, below growth rate g.

(Assume forever, but not needed)

How do we think about optimal debt in this context?

Debt can be issued and never paid back

Would seem good from fiscal viewpoint.

But not obvious from welfare view point:

Leaving aside public investment

- Higher debt still means less capital accumulation.
  - So, from welfare viewpoint, not Pareto improving.
  - Current generations better off; future worse off

But:

- Lower cost of debt servicing, lower taxation. If distortionary taxes, then optimal debt level is higher.

- Public debt may be useful in other ways:
  - Does the premium on public debt come from:
    - Higher liquidity of the govt bond market
    - Taxing power of the state: lower risk
    - Institutional constraints: hidden financial repression?

Complications

- Liquidity, gross and net debt:

  If provision of liquidity, then more gross debt is good. Net debt? What financial assets should the state hold?

  If state increases public financial intermediation, what happens to the premium?

- Allow for public investment.

  Clearly should invest until Public MPK= r

  Financed fully by debt?

  Financial versus social rate of return

  Tax smoothing. IBC. Short run issues. All back into play.

Back to the real world. Some tentative conclusions

- Given current and forecast levels, probability that IBC holds may be a dominant consideration.
- Implication: Focus on the fiscal approach. Desirable to decrease debt to GDP level (before it increases again)
- No urgency. Do it slowly. Let r<g play its role.
- Arithmetic of deficit reduction without offsetting monetary policy is extremely unappealing. Need monetary policy to help.
- A strong argument for public investment.