Long Run Issues: Debt and Retirement

How replay debt? $21 trillion

- We (fortunately!) we don't have to!
  - We simply roll over our debt
    - = When $10 bil comes due, we mail out $10 bil in checks
    - = And institutional investors buy $10 bil in newly issued debt
      - (*interest costs matter, but average maturity of US debt of 69 months mutes impact*)

•If debt-to-GDP ratio is high, interest costs can explode

–But much debt is long-term so stable if high i temporary

–Nevertheless....Greece!

•We cannot allow debt-to-GDP to rise forever

Stability requires not allowing the ratio of debt to GDP to rise too high – no specific threshold, but past 200% the likelihood of problems rises. The US is at about 100% now, so no short-term crisis

Debt by itself grows at the rate of interest $D' = D(1 + i)$

Meanwhile GDP grows too where $Y' = Y(1 + g)$

So D/Y debt to GDP grows at

$D/Y * (1+i)/(1+g) \approx D/Y\ (i\text{-}g)$ since $(1+i)/(1+g) \approx 1+i-g$

It's easiest to use all "real" variables, but the numbers should be the save if all are nominal. (You can't mix the two.)

Over that past 20-odd years $i - g \approx -1\%$, that is, growth is higher than interest rates

so IF we run a balanced Federal budget, THEN there's no issue: debt to GDP will decline bit by bit

= that's what happened after WWII when we had debt over 120% of GDP. the level fell to 30% of GDP by the 1970s because of strong growth.

there were a few years of budget surpluses, but they were small

= we outgrew our debt, and could do so again

However we currently have a very large deficit and by 2019 it will be larger, over 3% of GDP.

= *meanwhile – not discussed in class – the Boomers will push up Social Security and Medicare by 1% or more of GDP for 10-15 years, before they pass from the scene, so use 4%*

A big question for your future is addressing this issue.

- Option I: the "discretionary" federal budget is dominated by Defense. can we cut it by 1% of GDP? do we need 2,000 F35 fighter planes at a total cost of $2 trillion? politically, the DoD budget has to date proven hard to attack.
  - = will your generation change that?
- social security (see below) represents a social contract and fulfills a vital economic function
  - = by the time I retire I will have "paid into" Social Security for 50 years, under the promise of a pension. what Congressman or Senator will win an election by undoing that promise?

- in addition about half of Americans enter retirement with almost no financial assets (many own their housing). Social Security in the US (and elsewhere) is the most important antipoverty program in history. (that of the US is not generous, the other outlier is Japan but universal healthcare helps offset meager pensions)

= so I believe that your generation neither should nor will change that. after all, your day to receive a pension will come! (*"intergenerational equity" is a challenging issue, in philosophy, in politics, in economics, and in empirical measurement*)

So debt will grow at about 3% pa, which (Rule of 70/72) means it doubles in 24 years.

NO CRISIS – but you all will be mid-career when debt reaches a level that creates larger and larger side effects. You all will need to help usher in a substantial

So … retirement. No time to delve into the details of social security, their website has both good numbers and links to history and description of how it operates.

it was "sold" as a stand-alone program in the 1930s, but money is fungible so from an economics perspective it is not independent of the rest of Federal government finances. most politicians do not seem to understand that.

KEY IS PAY-GO:

At the economy level

• All retirement is always and everywhere PayGo = "pay as you go" – a society cannot "save"

• Fallacy of composition: you all cannot save for retirement

- Most consumption is services
- Can't be stored

• Challenge: how to get workers to support their elders

- For retirees to consume workers CANNOT consume
- Voluntary inadequate ⇒ tax-and-transfer can address issue

• additional (flip side of coin) issues:

- private savings can't preserve real value: asset price
    = market could be up or way down when you want to retire
    = W&L Wms School faculty include examples of both
- private savings can't preserve real value: inflation

• government **can** tax real GDP → can insure against both market fluctuations and inflation

- hence social security systems are found everywhere. China is currently laying the groundwork for a universal pension scheme.