OUTLINE — November 8, 2017

- Interest rates & Net Exports, recap
- Fiscal Policy
  - Effect on GDP in the short run
  - Deficits and Debt
  - Concerns regarding deficit spending

PS4 due Mon/Tues Nov. 20/21

MT2 reflection due on bcourses by 7 pm tonight

Further reading? Check http://www.cbpp.org/
(Center on Budget and Policy Priorities)

Review: PPF & AD

- Productivity & supply of inputs ("supply side")
  - Determine location of PPF
- Aggregate demand ("demand side")
  - Determines whether economy is on its PPF
- $Y_E = Y_{FE}$?
  - Economy is on its PPF
- $Y_E < Y_{FE}$?
  - Economy is inside its PPF

Three types of policy

Fiscal Policy	Monetary Policy	Credit Policy
Congress & President	Federal Reserve (Fed)	Combination of Fed & Congress
G, TR, and TA	Interest rates & money supply	Policies & laws relating to mortgage and consumer credit: *Availability, marketing, consequences of default*

Government Spending

- Fiscal Policy Tools
  - G: Government spending
  - TR: Transfer payments
  - TA: Taxes
- Direct Fiscal Policy: ΔG
- Indirect Fiscal Policy: ΔTR, ΔTA

Multiplier Effects

- Multiplier

- So, total Δ Y =

How gov't spends money matters!

Suppose spending multiplier = 4

Direct Policy Action	Indirect Policy Action
Suppose ΔG = 50	Suppose ΔTR = 50
So, initial Δspending =	So, initial Δspending =
and ΔY_E =	and ΔY_E =

Government spending has a greater effect on GDP than do changes in taxes or transfer payments

Assuming what . . .

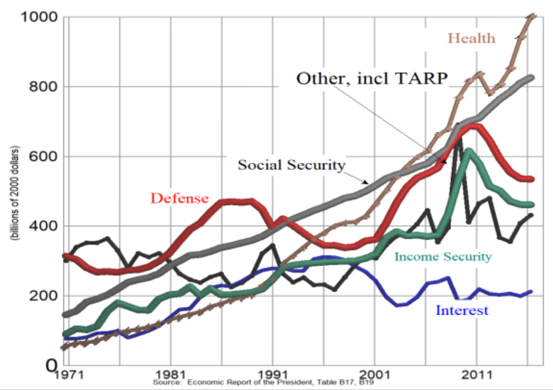
- Step 1 of multiplier process is initial change in AD
  - ΔG

  - ΔTR

  - ΔTA

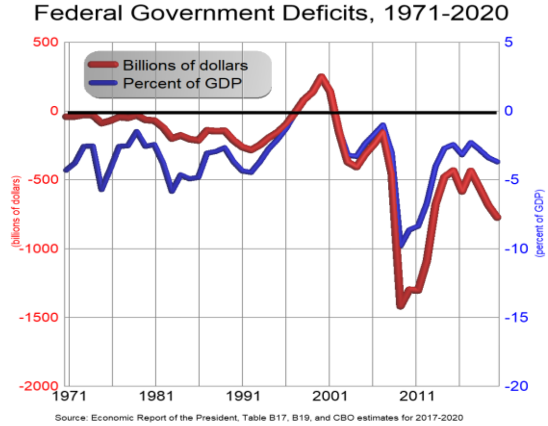
Federal Spending, 1971-2017

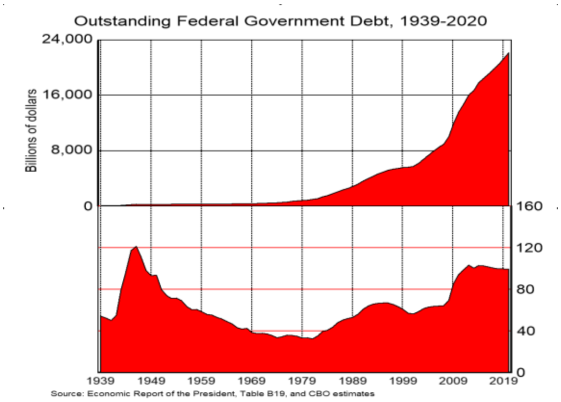
(Real values, billions)



Deficits and Debt

- Budget Deficit or Budget Surplus
  - If, in one year, G + TR > TA: budget deficit
  - If, in one year, TA > G + TR: budget surplus
    - G + TR = Government outlays
    - TA = Government receipts
- Government debt
  - Cumulative total, since 1790, of
    annual budget deficits <u>minus</u>
    annual budget surpluses
  - Government borrows by issuing IOUs: government bonds





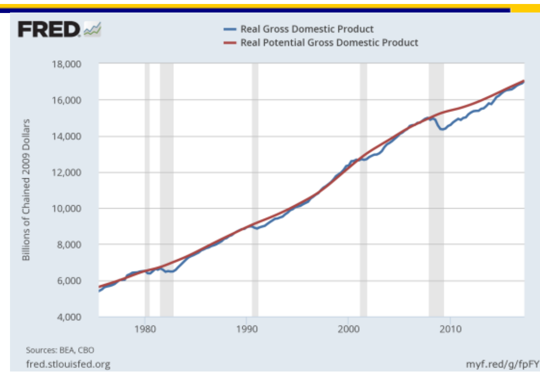
Fiscal Policy Effect on Deficit

▪ Expansionary fiscal policy	▪ Contractionary fiscal policy

Fiscal policy & Output gap

- If we are trying to close an output gap, fiscal policy should be expansionary
  - That is, increase budget deficit this year relative to last year
- If there is no output gap, expansionary fiscal policy may be *too* expansionary
  - Does fiscal policy affect PPF? Or just affect AD?
  - Pushing economy beyond PPF can trigger inflation
- So today, when debate is “shall we cut taxes & increase budget deficit by $1.5 trillion?” we really need to know [1] size of output gap, [2] effect on PPF

Actual & Potential Real GDP



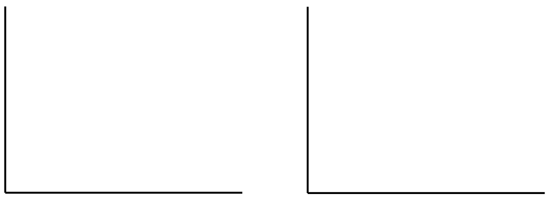
Real World Complications

- Concerns (this is summary; detail on upcoming slides)
  - Temporary vs. permanent fiscal stimulus
  - Federal vs. state & local policy
  - How does government pay its bills when run a deficit?
    - Hint: By borrowing
  - Impact on interest rates
    - “Crowding out” of investment?

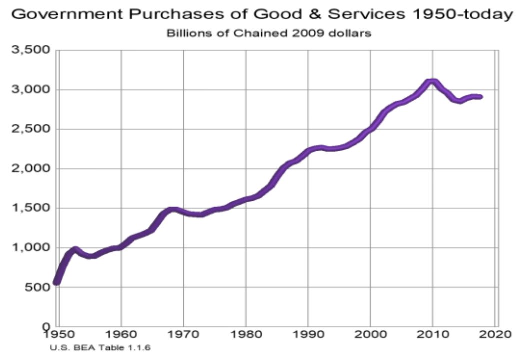
Temporary Stimulus

- “Priming the pump”
  - A process of getting water flowing in a pump, and then the water *just keeps on flowing (even after the “priming” stops)*
- Does Government spending “prime the pump?”
  - What process keeps aggregate demand high after temporary increase in G ends?

Temporary vs. Permanent ΔG



After 2010, government spending was a drag



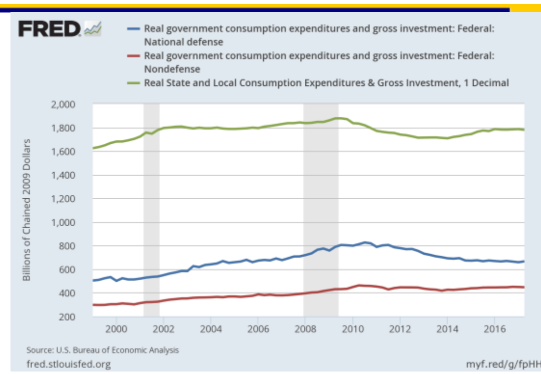
Federal vs. State & Local Policy

- Federal government can run a budget deficit
- State & Local governments can not

- Recession? Income (Y) down, TA down, TR up
  - Federal: deficit automatically increases
  - State & Local: Deficit increases, but can't have deficit.
    So must cut G+TR or increase TA to eliminate deficit

- ***State & local governments worsen recessions***
  (not because they want to. . .)

State & Local swamps Federal Spending



Effect of G on GDP growth

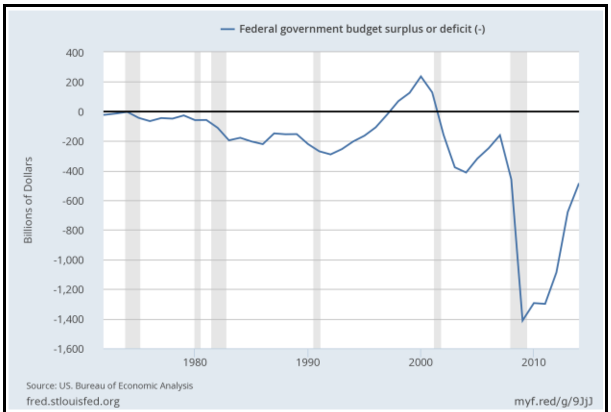
BEA.gov, NIPA Table 2
Contributions to Percent Change in Real GDP

	2009	2010	2011	2012
Annual % change				
Real GDP	-2.8	2.5	1.6	2.3
By component of AD:				
Consumption	-1.1	1.3	1.6	1.3
Investment	-3.5	1.7	0.7	1.3
Net exports	1.2	-0.5	0.0	0.0
Government spending	0.6	0.0	-0.7	-0.3
Federal	0.4	0.4	-0.2	-0.2
State and local	0.2	-0.4	-0.4	-0.2

- Top # = sum of other #s in column (but don't double count G)
- GDP grew in 2010
  - But state & local government spending was a drag on GDP growth

Automatic vs Discretionary Policy

Automatic stabilizers	Discretionary fiscal policy

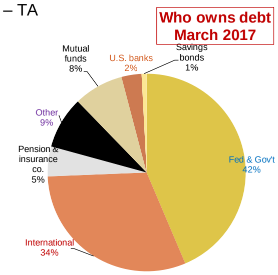


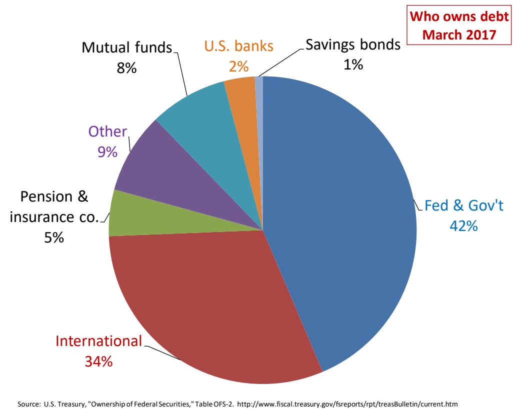
Structural vs Cyclical Deficit

- A counterfactual question: How big would the deficit be if the economy were at full employment (eg, 4%)?
- How much larger is the deficit because unemployment is above full employment rate of 4 percent?
- It is problematic (many say) when the structural deficit > 0

How pay bills when run a deficit?

- Federal government does **not** “print money” to pay its bills
  - Deficit? **Federal government borrows**
    - Annual borrowing = (G + TR) – TA
- Who lends?
  - Everyone





Impact on Interest Rates

- Market for loanable funds

- *But, but, but . . . Ceteris paribus* doesn’t usually apply

What if Supply changes too?

- Market for loanable funds