Intro and Backgroud: some broad facts about debt in the U.S.
266: Financial Markets and Institutions

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- ...
  - Today we'll get into more concrete discussion of the financial world
  - We'll focus mainly on the U.S.
  - Two reasons:
    - These are the most important and most advanced financial markets right now
    - Your professor is better informed about these.
- **Some facts about debt in U.S.**
  - Consider all types of debt: Bank loans, other loans, bonds sold, mortgages, etc.
  - Focus on debt of the nonfinancial sector

    That is, the sectors served by the financial sector

  - The financial sector serves three major domestic sectors: households, nonfinancial business and government

    (The remaining sector is the foreign sector—households, businesses, and governments abroad.)
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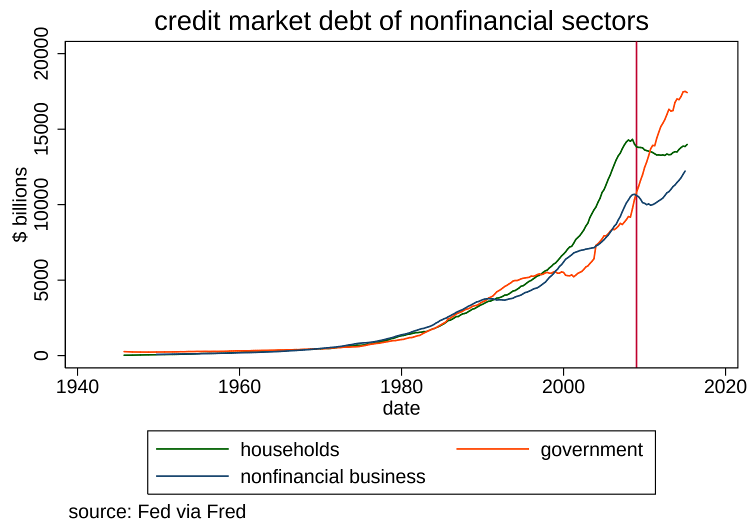

- **Debt by major sectors**
  - Debt of each sector has grown fairly uniformly throughout the period covered
  - At least until recently, the amounts of debt have been of a similar magnitude across the sectors.
- **Big numbers, small numbers, etc.**
  - I want you to have some sense of magnitudes—what's a big number? what's a small number?
  - U.S. nominal GDP is about $19 trillion

    we'll use round numbers for broad totals in this class, so let's call it $20 tril.
  - The debt of each sector is a bit smaller
- **Debt as a share of GDP**
  - For many puposes, it is more informative to look at debt as a share of income, rather than simply the amount of debt
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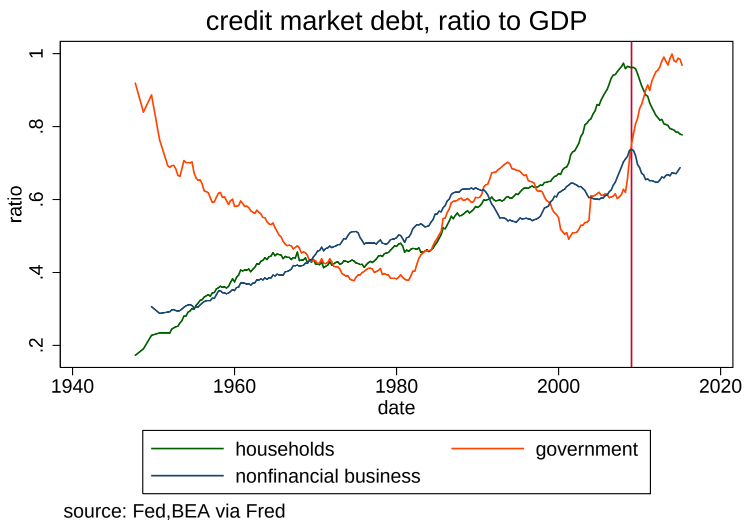
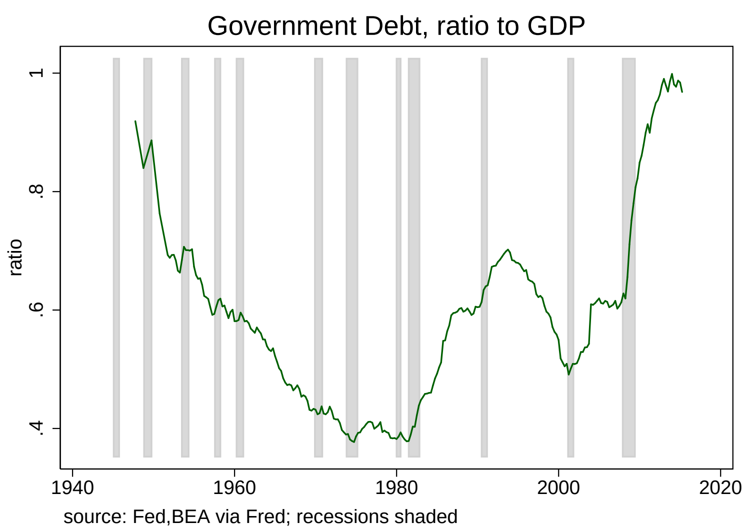


- **Let's look at these sector by sector**
- **Government**



- Government debt as a share of GDP in the U.S. fell for much of the early period as the U.S. worked off debt accumulated during WWII
- Aside: many of the big innovations in financial markets historically been driven by the extraordinary borrowing needs of governments during wars.
- Debt rose sharply at the end as a result of the financial crisis.
- This illustrates a very general feature of government debt worldwide: Wars and economic crises are associated with sharp increases in government debt.

- Debt also rose sharply relative to income in the Reagan era starting in 1980 as government spending increased and taxes were cut.
- Many people think we may be in for another similar period under Trump
- Today, around the world the level of govenrment debt-GDP ratios span the gamut from very low (e.g., Norway at about 1/3) to high (Japan, over 200%).

▶ **Looming crisis?**

- Many people argue that the U.S. may be headed for a govt. debt crisis.

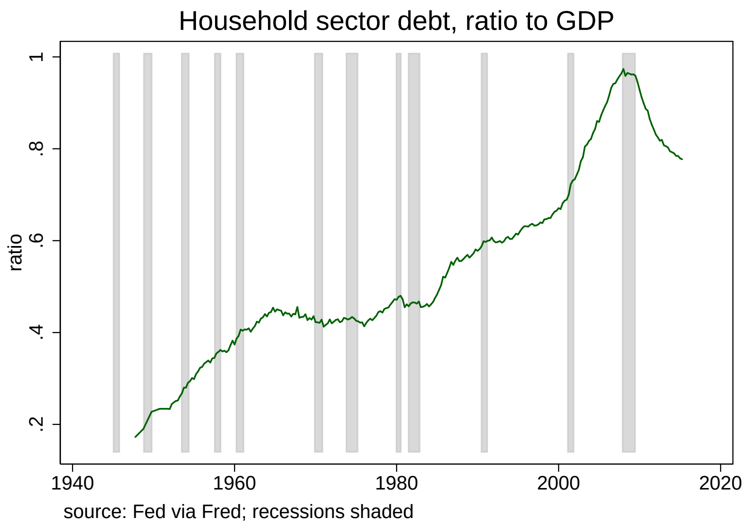
  OHMYGOD debt is almost 100% of GDP!

- What if people refuse to buy our debt? Interest rates will sky rocket! Debt crisis!
- This *could* be right, but . . .
- Japan is rich, but a poorer economy than the U.S.
- Japan has been performing poorly in relative terms for 25 years
- Japan has government debt of 200% of GDP
- Clearly Japan is a worse credit risk than the U.S.
- Q: What does it cost the Japanese government to borrow for 10 years?
- A: Less than nothing.

  The 10 year borrowing interest rate is negative, so people are paying to lend to the Japanese government for 10 years.

- This is just another example of the strange times we live in
- But is also a reminder to pause and think for yourself when you hear pundits declaring the sky is falling.

▶ **Household debt**



▶ **Household debt**

- Household debt rose pretty steadily from 1950 through 2007
- This was generally viewed as a sign that the economy was still evolving from 'neither a borrower nor a lender be' toward an efficient flow of credit to households.
- At each point as household debt rose, some experts and others were arguing that things had gone too far

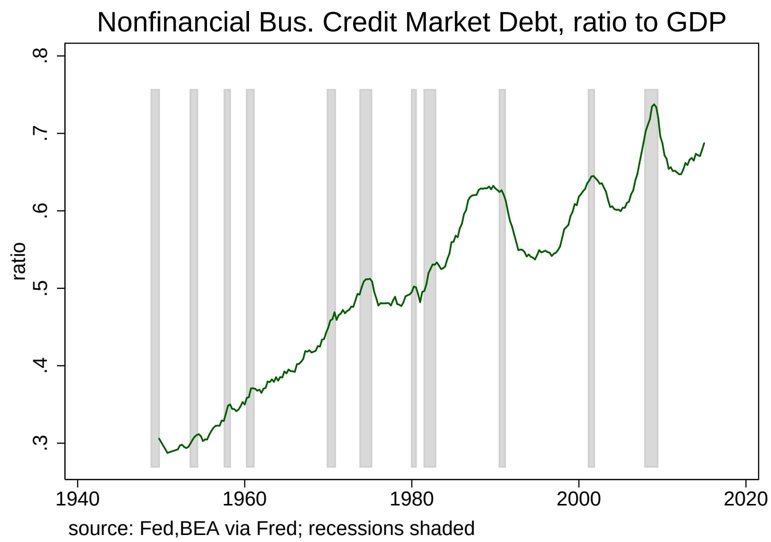
  Irresponsible folks willy-nilly going into debt. When I was a kid, we never would have done that!

- But, ex post, for the most part this is viewed as a move toward greater efficiency.

  Still moving from 'neither a borrower nor. . . ' to the efficient level of lending.

- Nobody really knows where the efficient level of debt is, but things seemed to be getting better in the economy over the 50 years in which debt was rising.
- Then, household debt began rising very sharply around 2000 and folks began to wonder if maybe things were going too far.
- And debt fell back sharply after the crisis.
- Whether household debt will or should resume an upward climb or may fall further is an open question.

▶ **Nonfinancial busisness debt**



- Like household debt of nonfinancial businesses relative to income has trended upward
- Thus, the evolution from 'neither a borrower nor a lender be' toward efficient credit flow still seems underway for businesses, even in the U.S.
- Note that debt seems to rise in good times (during expansions) and fall back during and just after recessions.

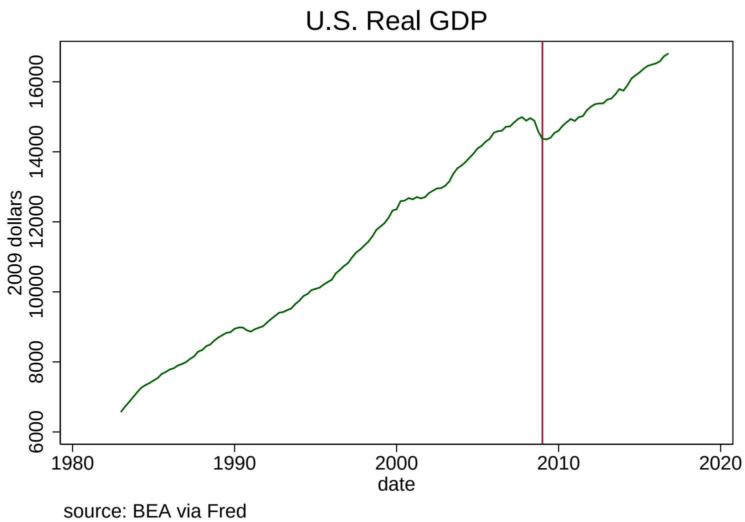
  this is sometimes called the leverage cycle, we'll talk about leverage a good deal.

- Note also that the amplitude of the leverage cycle (the size of the swing between peak and trough) grew sharply after 1980 and was very sharp around the crisis

▶ **The Crisis Aftermath in the U.S.**

- In the aftermath of the crisis, the U.S. economy has performed poorly

▶ **U.S. Real GDP**



- The crisis involved a drop in GDP
- With growth then resuming at a somewhat slower pace from the new lower starting point.
- But as we saw earlier, U.S. equity markets and house values surpassed the previous peak a few years after the crisis.
- One major change relative to just before the crisis is that households have less debt and to a large extent this drop is mirrored by a rise in government debt.

▶ **Relative to Japans 1990s bubble?**

- All in all, the U.S. appears to have recovered more quickly than Japan

▶ **Remember . . .**

- Just before the crash in Japan, lots of folks were arguing that their financial system was indisputably best.

  > Big banks, government, and industry working together to steer capital to productive uses is definitely the way to go.

- And just before the crash in the U.S. folks argued the opposite

  > Flexible, bond and stock market-based finance quickly moving capital to its most productive is by far the best way.

- Then we got Dodd Frank and other legislation to greatly increase regulation on the financial system
- Dodd Frank definitely played a role in restraining growth, but nobody is sure whether or not it has played a *large* role

- And maybe we'll try a new experiment soon…
- We seem likely to be trying a new experiment in regulation soon.

▶ **Reliable lessons this point in the course**

- Financial markets and institutions matter.

  Ignore them at your peril.

- Financial markets do not satisfy the conditions for markets to work well.
- Thus, economies have evovled lots of specialized institutions and practices to minimize the problems with financial markets and help capital flow more freely.
- All these approaches have proven to be subject to periodic collapse.

▶ **Thus, Bagehot's admontition that we need to study financial markets remains as true today as it was in 1870**