The U.S. Fiscal Situation

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Disclaimer

Disclaimer: The views expressed are those of the author and do not necessarily reflect those of the Federal Reserve Bank of St. Louis or the Federal Reserve System.

Really.

I thank Brett Fawley for excellent assistance in putting this presentation together.
The Agenda

- Government budget constraints
- Debt Complications
- U.S. budget history
- Current U.S. fiscal situation
- An international comparison
- Resolutions of the U.S. Fiscal Situation?
- Where does the money come from and where does it go?
The Government Budget Constraint

The present value of total expenditures (forever) cannot exceed the present value of taxes (forever).

- A government doesn’t have to balance its budget every year; neither does your family.
- Governments live approximately forever. (Or something close.)

Balanced budgets aren’t necessary or wise.

- Reasons for unbalanced budgets: Recessions, wars, capital investments and demographic imbalances.
An Aside: Debt Complications

How should we count things? How to measure debt?

- Capital budgeting: Investment versus consumption.
- Future liabilities: E.g., Social security and Medicare.
- Gross versus net debts
  - Net debts subtract government assets (e.g., FX reserves) from total debt.
- U.S. debt is complex.
  - Include state/local debt and net out government/Fed held debt.
The Government Budget Constraint

Benjamin Franklin believed in balanced budgets, period by period.

- “Neither a borrower nor a lender be.”
The Government Budget Constraint

- Government defaults are common.
  - See Reinhart and Rogoff: “This Time Is Different.”
  - Explicit vs. implicit (inflation) defaults.

Source: This Time Is Different: A Panoramic View Of Eight Centuries Of Financial Crises, Carmen M. Reinhart, Kenneth S. Rogoff, WP 13882
http://www.nber.org/papers/w13882
The Government Budget Constraint

How large of a deficit/debt can a country run?

- Deficits and debts are typically expressed as a % of GDP.

![Graph showing the percentage of GDP for Italy's gross and net debt, Japan's gross and net debt from 1970 to 2010. The graph indicates an increase in debt over time, with Italy and Japan showing significant growth by 2010. Source: OECD Economic Outlook]
U.S. Historical Gross and Net Federal Debt

Debt climbed during war and slowly fell during peacetime until the 1980s.

Recent deficits are completely unprecedented in peacetime.

Source: OMB
What is the U.S. Fiscal Situation?
An International Comparison

Federal problems

- Large deficits
  - Projected debt-to-GDP rising from 60 to 185 by 2035.
- Serious long-term challenges over Medicare/Social Security.
  - Short term problems are resolvable; the long-term situation is more serious.

There are also big State problems

- Discussions of state “bankruptcy.”
What is the U.S. Fiscal Situation?
Not good at all

Medicare is the big long-term problem.

- Structural problem: Economic & technological growth lead us to want to pay a higher fraction of our income for medical care.
- A third party payer removes a check on growth.
The Coming Problems with Social Security and Medicare

Source: National Center for Policy Analysis
http://www.ncpa.org/pub/ba662
U.S. Historical Gross and Net Federal Debt

US net debt/GDP expected to rise from 60 % in 2010 to 185 % by 2035.

Source: FY12 Budget, GPO
What is the U.S. Fiscal Situation?
An International Comparison

- The U.S. has very large deficits and fairly large debt ratios compared to other developed countries.
- Less developed countries cannot accumulate so much debt.
- The U.S. is helped by its size and reputation for not defaulting.
Current Deficits v. Gross Debt

Current Deficit (% of GDP)

Gross Debt (% of GDP)

Source: OECD Economic Outlook
Current Deficits v. Net Debt

Source: OECD Economic Outlook
Resolutions of the U.S. Fiscal Situation?

There are three ways that the U.S. fiscal situation might be resolved.

- A change in tax/spending policies that makes the fiscal situation sustainable.
- An explicit default. (Very bad.)
  - Markets place a low probability on this outcome.
  - CDS rates have risen substantially but are still fairly low.
- An implicit default through inflation. (Also very bad.)
  - Markets do not seem to believe this.
  - Expected inflation is low. No chance of “implicit” default through substantial inflation.
  - The U.S. debt structure would make this very difficult.
Resolutions of the U.S. Fiscal Situation?

- Why can’t the Federal government simply print dollars to pay for what it needs to buy?
  - Bad idea: This would quickly lead to hyperinflation.
  - This has been done in many countries and is well understood.

- Isn’t that what the Fed is doing with its QE programs?
  - No, QE are temporary purchases and current circumstances allow the Fed to keep the QE purchases from increasing the broader monetary aggregates.

- So what good is QE if it is temporary and doesn’t affect broader monetary aggregates?
  - It reduces long term interest rates and increases investment projects.
What Effect have these Deficits/Debts had on Bond Yields?

10 YR Bond Yields (%)

Lehman Brothers/financial crisis TARP

United States
Canada
Japan

2005 2006 2007 2008 2009 2010 2011

Source: Bloomberg
What are CDS Rates?

- CDS: Credit default swaps.
- CDSs function much like insurance for bonds.
  - The buyer pays an annual premium in exchange for the seller’s agreement to buy the bond at face value (par) if the bond issuer defaults.
- One can use CDS rates to derive “risk-neutral” probabilities of default.
  - What are “risk-neutral” probabilities?
What Effect have these Deficits/Debts had on CDS Rates?

Source: Bloomberg
What is the U.S. Fiscal Situation? Not good at all

Expected Inflation

- 5-Year TIPS Implied Expected Inflation
- 10-Year TIPS Implied Expected Inflation
- U. of Michigan 5-Year Inflation Expectation

Source: Federal Reserve Board and FRED
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The U.S. Fiscal Situation

Where does the money go?

- Federal: Defense, Interest payments, Social Security, Medicare and Medicaid
- State: Welfare, schools, hospitals, highways.

Where does revenue come from?

- Federal: Personal income taxes, payroll taxes and corporate income taxes.
- State: Sales taxes, personal income taxes, corporate income taxes.
What does the Federal Government buy?

Defense, Interest payments, Social Security, Medicare and Medicaid

Composition of Federal Expenditures

Source: U.S. Treasury
Where does Federal revenue come from?

Personal income taxes, payroll taxes and corporate income taxes.

Composition of Federal Tax Revenue

Source: U.S. Treasury
What do State Governments buy?

Welfare, schools, hospitals, highways.

Composition of State Expenditures

Source: U.S. Census
Where does state revenue come from?

Sales taxes, personal income taxes, corporate income taxes.

Composition of State Tax Revenues

Source: U.S. Census
U.S. Strength

Difficult for international bond buyers to find enough good substitutes for U.S. government debt.

- There are few options: the euro, the yen, the pound.
- The “Officer and a Gentleman” scenario: “I’ve got nowhere else to go.”
The Bottom Line

- The United States faces a difficult fiscal situation.
  - The financial crisis has strongly affected short-run budgets.
  - The long run is actually a more serious problem.
    - Medicare growth, social security.
    - States share in these problems.
  - Markets still place a low probability on the possibility of a U.S. default, either implicitly or explicitly.
- The U.S. has benefitted to some extent from the PIIGS problems.
The End