Economics 1: Fall 2010

J. Bradford DeLong, Michael Urbancic, and a cast of thousands...

http://delong.typepad.com/econ_1_fall_2010/
Ladies and Gentlemen, to Your i>Clickers...

• How many people think the ongoing “inflation economics” problem set is...
  – A. Too hard?
  – B. Too easy?
  – C. Too short?
  – D. Too long?
  – E. Just right/no opinion/don’t know?
Economics 1: Fall 2010: Inflation, the Federal Reserve, and Hyperinflation

J. Bradford DeLong

September 20, 2010, 12-1
Wheeler Auditorium, U.C. Berkeley
Readings

• 1.2 Inflation Economics
  – W Sep 15: Inflation Economics.
    • CFO, chapter 22 “Inflation”; chapter 25 “An Overview of Money” and “How Banks Create Money”; chapter 29 “The Short Run Relationship Between the Unemployment Rate and Inflation” and “The Long Run Aggregate Supply Curve, Potential Output, and the Natural Rate of Unemployment”; chapter 33 “Monetarism”

• 1.3 Budget Economics
    • CFO, chapter 35 “The Balance of Payments”, “Equilibrium Output in an Open Economy”, and “The Open Economy with Flexible Exchange Rates”
  – Problem set 2: inflation economics due at start of lecture on September 22.
Recapitulation
The Inflation Rate
Monetary Economics

• The quantity theory of money:
  – $P = (M \cdot V)/Y^*$

• The Phillips Curve:
  – $\pi = E(\pi) + \beta(u^* - u)$
    • Where does $E(\pi)$ come from?
    • Where does $u^*$ come from?
The Unemployment Rate and the Change in Inflation

Change in Inflation, 1959-2009

Chart showing the relationship between change in annual inflation rate and unemployment rate from 1959 to 2009.
The Phillips Curve

The 1960s

The 1970s

The Early 1980s

The Late 1980s and After

Late 1990s, 2000s Through the early 1990s
Welfare Costs of Inflation
Why Does It Matter?

• Should we care about inflation?
  – I mean, if wages and prices rise at about the same amount, why is it a problem?

• Why would anybody ever do what Paul Volcker did in 1982?
  – That is, deliberately trigger a nasty episode of depression economics in order to push inflation down?
Why Inflation Matters

• Inflation deranges the price system and makes it “inefficient”
• Inflation is unfair
• Inflation is unpopular
  – Politicians whose central bankers allow inflation to take hold tend to lose the next election
Inflation Deranges the Price System

- A market economy works by people using prices to calculate what to do
- And a market economy works well when prices reflect actual social values and scarcities
  - That is, when low-priced things are “cheap” in the sense that they use up little of our resources; and high-priced things are “valuable” and hence worth making
- Inflation makes these calculations difficult, and error-ridden
Inflation Is Unfair

• John Maynard Keynes:
  – Lenin is said to have declared that the best way to destroy the capitalist system was to debauch the currency. By a continuing process of inflation, governments can confiscate, secretly and unobserved, an important part of the wealth of their citizens... confiscate arbitrarily; and, while the process impoverishes many, it actually enriches some.... Those to whom the system brings windfalls, beyond their deserts and even beyond their expectations or desires, become 'profiteers’... the object of... hatred.... All permanent relations between debtors and creditors... become... disordered... wealth-getting degenerates into a gamble and a lottery. Lenin was certainly right. There is no subtler, no surer means of overturning the existing basis of society than to debauch the currency. The process engages all the hidden forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose...
Inflation Is Unpopular

- Arthur Okun and the “Misery Index”
- The defeat of Gerald Ford
- The defeat of Jimmy Carter
- The defeat of James Callaghan
- The reelection victory of Ronald Reagan
- The reelection victory of Margaret Thatcher
Ladies and Gentlemen, to Your i>Clickers...

• Which do you think is the most important reason to try to avoid even moderate inflation—say, 8% per year?
  – A. Inflation destabilizes the price system
  – B. Inflation is unfair
  – C. Because inflation is unfair it destabilizes the government and support for the market economy in general
  – D. Inflation is unpopular and tends to lead to the defeat of politicians currently in office
  – E. Even moderate inflation is unstable: a government that will tolerate 8% inflation will tolerate 10%, and a government that will tolerate 10% inflation will tolerate 12%, and things then unravel...
Maintaining Stable Prices
Controlling the Money Stock

• “Money” = “assets people are holding only because they are ways of paying for things that they buy”

• The Federal Reserve makes money: “high powered money”
  – It does so by buying bonds and paying for them with:
    • Cash which the Treasury prints
    • Deposits which the Federal Reserve simply announces exist

• Banks offer individuals and businesses checking accounts
  – The proportionality between checking accounts and bank reserves
  – Are checking deposits too high relative to reserves? Banks can and do make them less attractive...

• $M = \mu R$
  – $\mu$ for the money multiplier, determined by banking system behavior
  – $R$ for high powered money, determined by the central bank
The Federal Reserve System

• The Federal Reserve Board
  – Chair (4-yr term), vice chair (4-yr term), five members

• The FOMC
  – Federal Reserve Board plus 12 regional bank presidents, five of whom can vote each year

• A committee that moves by consensus
  – Scarred by the inflationary episode of the 1970s
  – Further scarred by the depth of the 1982 “Volcker disinflation”
  – Outside its comfort zone right now
  – Preventing any reemergence of inflation job #1, other goals of lesser importance
Failing to Maintain Stable Prices
Why Would Anybody Allow Inflation?

• If you want to stop inflation, simply stop letting the money stock increase
• But what if people expect inflation? Then not fulfilling those expectations will create high unemployment
• And what if you want to goose the economy? Richard Nixon
• And what if the government spends but cannot tax
  – It can borrow for a while
  – But then?
Hyperinflation

**Mugabe vs Milosevic**

Sources:
- (Dinar/USD) - Steve Hanke
- (ZWD/USD) - Imara Asset Management Zimbabwe
$Z100,000,000,000,000

ONE HUNDRED TRILLION DOLLARS
Ladies and Gentlemen, to Your i>Clickers...

• At the start of 2005, $1=$Z10. By the end of 2008, $1=$Z1,000,000,000,000,000,000,000,000,000. What was the average rate of inflation in % per day over those four years?
  • A. 1% per day
  • B. 4% per day
  • C. 10% per day
  • D. 100% per day
  • E. 1000% per day
An Answer: The Arithmetic of Compound Growth...

- \( e = 2.71828 \)
  - A number growing at \( k\% \) per day equals \( e^{kT} \) after \( T \) days...
  - \( 10^3 = e^7 \) more-or-less (actually \( e^7 = 1096.7 \))
- \( 10 = 10^1 = e^{2.3} \)
- \( 1,000,000,000,000,000,000,000,000 = 10^{24} = e^{56} \)
- 1460 days...
- Grow at 1\% per day then after 1460 days = \( e^{14.6} \)
- 56 is four times as big as 14
  - So the Zimbabwean price level is growing 4 times as fast, so 4\% per day...
Test Your Knowledge

• What are the three reasons to fear inflation?
• How can the Federal Reserve expand or contract the money stock?
• How can the banking system as a whole expand or contract the money stock?
• Why would any central bank allow inflation, ever?
• What is hyperinflation?
Ladies and Gentlemen, to Your i>Clickers...

• At the moment, three of the seven seats on the Federal Reserve Board are vacant, and the chair of the Federal Reserve expresses the consensus. That means that the voting members of the FOMC excluding the chair now consist of:
  – A. Four chosen by bankers, two Democratic appointees, and two Republican appointees
  – B. Five chosen by bankers, one Democratic appointee, and two Republican appointees
  – C. Five chosen by bankers and four Democratic appointees
  – D. Seven Republican appointees and one Democratic appointee
  – E. Eight Democratic appointees
Economics 1: Fall 2010: The Long-Run Government Budget

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The National Debt
Federal Spending and Revenue: History and Near Future

Summary Figure 1.

Total Revenues and Outlays
(Percentage of gross domestic product)

Source: Congressional Budget Office.
Federal Spending and Revenue: Longer-Term Outlook

Source: Congressional Budget Office.

Notes: Primary spending refers to all spending other than interest payments on federal debt.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections through 2020 (with adjustments for the recently enacted health care legislation) and then extending the baseline concept for the rest of the long-term projection period. The alternative fiscal scenario incorporates several changes to current law that are widely expected to occur or that would modify some provisions that might be difficult to sustain for a long period. (For details, see Table 1-1 on page 3.)

CHIP = Children’s Health Insurance Program.
The “Current-Law Baseline” Is Close to Balanced

- Primary fiscal gap of 1.2% of GDP over the next 25 years
- But the CBO does not believe congress and the president will stick to the current-law baseline
  - “Middle class” tax cuts (0.7%)
  - High bracket tax cuts, estate tax, etc. (0.6%)
  - “AMT fix” (0.3%)
  - “doc fix” (0.2%)
  - R&D credit (0.1%)
  - Special tax on high-cost health plans (0.8%)
  - iPAB (0.9%)
- Alternative fiscal scenario: primary fiscal gap of 4.8% of GDP
What Happens If a Government Loses the Confidence of Its Creditors?

• Zimbabwe
• Four lesser examples:
  – Mexico 1995
  – East Asia 1997-1998
  – Argentina 2001-2002
  – Greece 2010
• Are we close to the edge now?
  – No
• Will we be someday?
  – Perhaps
• When?
  – We don’t know...
Test Your Knowledge

• When in American history has the debt-to-GDP ratio risen?

• What happens when a government’s creditors—the bondholders—conclude that a government might never close its fiscal gap?

• What is the CBO’s budget baseline—the thing that shows only a small fiscal gap (1.2% of GDP) over the next 25 years?

• So our budgetary situation right now is fine—except that we want to run short-term deficits in order to reduce cyclical unemployment—right?