Overview

• A Simple Framework for Monetary Policy

• A Brief History of a Shallow Recession
  – How Mild Was It?
  – What Kept Us Humming During the Recession?
  – Who Gets the Credit for That?

• This Year--the Recovery?
  – How Far Have We Come?
  – Where are we going?
  – What are the Risks?
  – How About Those Productivity Numbers?

  • What do they mean?
It takes 1 to 2 quarters for
(1) Interest rates to affect spending
(2) Spending to affect employment
(3) Employment to affect inflation

Federal Reserve sets **funds rate**, (1.75%) influences

**Real GDP growth**, (1.7% ‘01:Q4) influences

**Unemployment Rate**, (5.7% Mar ‘02) influences

**Inflation** (2.5%)

Okun’s Law

Phillips Curve

Other factors: Govt. Expenditures, Rest of World

It takes 1-1/2 to 2 years for the full effects of monetary policy
How Mild Was the Recession?  
“Output Gap” in this Cycle Compared to History

Source: Congressional Budget Office (potential output), BEA (GDP)
Why Was It So Mild? (1) Strong Consumer Spending

Comparison of recession experience for 1-qtr. % change in consumer spending

Consumption growth during THIS recession

Average consumption growth during a recession

Implies that normal consumption “rebound” during recovery will be smaller

Source: BEA
Why Was It So Mild? (2) Strong Housing

Comparison of recession experience for 4-qtr. % change in residential investment

Average residential investment growth during a recession

Residential investment growth during THIS recession

Implies that housing “rebound” during recovery will be smaller

Source: BEA
What Spurred These Components (Part I)?
The Fed’s Actions May Have Helped:
Comparison of Real Federal Funds Rates in This Cycle versus History

Historical Average

This Recession: A Much More Rapid and Aggressive Set of Rate Cuts

Heavy black line represents average of recessions
Heavy red line represents current experience
And Now, Please Rise for Our National Anthem

(A Somewhat Younger Mr. Greenspan)
What Spurred These Components (Part II)?
The Federal Government’s Spending May Have Helped:
Comparison of 4-qtr. growth in Fed. Govt. Spending in This Cycle versus History

This Recession:
A More Rapid Increase in Spending

Historical Average

Source: BEA
One Component That Wasn't So Mild: Capital Investment

Comparison of Recession Experiences

Average investment growth during a recession

Investment growth during this recession

Investment was particularly weak given mildness of recession

Source: BEA

Heavy black line represents average of recessions
Heavy red line represents current experience
Why Was Investment Weak?
(1) Overinvestment in late 90s/2000

The Investment Boom of the Late 1990s/2000...

...Fell Apart as Dot-Com Companies Failed, the Price of Used Equipment Fell, Y2K-related investment ended, and Telecomm Over-invested (in Fiber Capacity, etc.).
Why Was Investment Weak?
(2) Overinvestment Resulted in Excess Capacity

Capacity Utilization Dropped as Over-Investment in Capital Equipment Left Much Capital Unused ("Overhang")

Source: Federal Reserve Board
And Now for the Recovery …

- First-quarter growth in GDP: **5.6%**
- Of which **3.5%** was less rapid drop in inventories
- Which means only **2.1%** was Final Sales
- Blue-Chip\(^a\) GDP forecast for rest of year: **3.3%**
- Blue-Chip Unemployment forecast for end of years

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
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<td>5.6%</td>
<td>5.2%</td>
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\(^a\)May 10 forecast
Where Does the Projected Recovery Come From?

• Moderate Consumption Growth (<3%)

• Flat Residential Spending (high level, but no growth)

• Weak capital investment

• Weak state and local government spending

• Some federal spending

• And INVENTORIES!!

• Look at these components in more detail
Consumption Indicator: Retail Sales Have Held Up Well So Far...

(Oct: 106.6)
In Real Terms, As Well.

12-month % change, real retail sales
Recent Forward-Looking Indicators of Housing Activity Have Held Up Well

Single-family Starts

Permits continued to grow.

Single-family Permits

Starts were weak in April, but ...
Investment Shows Signs of Recovery in Some, But Not All Components

Computers are back, But communic. is still flat at best

Source: BEA, NIPA
Looking Forward: Orders for Capital Equipment ...

...Have turned up this year, although not dramatically ...

... and communications still has a long way to go.
The Inventory Dynamic Over the Recession

Change in Private Inventories

Inventories cut back during ‘02:Q1, but at a slower pace than ‘01:Q4 ...

Contribution of Inventories to GDP Growth

... resulting in a LARGE positive contribution to GDP growth last quarter
If sales persist, then what happens to inventories?

- This change in inventories, while less than the 4th quarter, is still NEGATIVE.
- At some point, if sales are growing, businesses will ADD to inventories.
- This will add to GDP growth for the balance of 2002
That Point Should Come Fairly Soon, As Inventory Stocks are LEAN

The past two quarters’ inventory reductions have brought the I/S ratio back in line with its trend.
Risks to the Recovery

- Capital Spending: Who’s Doing It?
- State and Local Spending: Are the states in any shape to spend?
- Federal spending: Deficits re-emerge
- Consumer spending and housing: Never contracted during recession—no boost in recovery (although April’s retail sales data suggest consumption is OK)?
- Consumer spending: As unemployment remains high, stock prices fall, ...
The Big Surprise this Time: Productivity
Productivity Growth During Recessions

Productivity usually declines during a recession ...

But Not This Time
Why Has Productivity Remained So Strong?

• We Don’t Know

• Some Possible Explanations:
  – Structural productivity growth is even stronger than we thought at the end of the 90s
  – UNCERTAINTY
    • Firms are not convinced of the strength of the recovery
    • Sales in the first quarter were pretty strong
    • So they met the sales out of inventory stocks, and
    • They didn’t hire or increase hours—→ productivity grew
Rapid acceleration in productivity growth implies:
- Lower inflation
- Higher real GDP growth
- So increased productivity growth provided a unifying explanation for surprising developments of the late 1990s.
What’s Equilibrium Unemployment?

- In long run, not up to the Fed
- With potential in the 3’s, the outlook implies unemployment remains fairly high (Blue Chip may be optimistic)—low to mid-5’s
- Is that “equilibrium unemployment”?
- We functioned pretty well in late 90s with an unemployment rate in the 4’s.
- Were there signs of trouble at 4+? Look at labor market data (real wages, productivity).
Real Wage Growth never exceeded productivity growth in the 90s/early 2000’s.

Even as unemployment fell well below 5%.

Hard to find evidence that suggests equilibrium unemployment starts with a 5!

Real Wage defined as 4-quarter growth in employment cost index less 4-quarter inflation in the core PCE chain-weighted price index.
Productivity growth equals the 12-quarter growth in nonfarm business productivity.