Macroeconomic Outlook for 2006 and What It Means To Credit Unions

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Outline

• A Forecast For The U.S. Economy
• Effects Of A Forecast On ROA
• Acting On The Greenspan Conundrum
• Risks Of Other Outcomes For The Economy
• Summary
Near-Term Macro Outlook

- **Strong economic and job outlook**
  - Growth at 3.5% and unemployment at 4.8%
    - Despite GDP growth in 2005Q4 of 1.6%
    - Forecasters confident growth will continue
- **Inflation near the top of Bernanke’s comfort zone**
- **Short-term interest rates likely rise a bit more**
  - More because of easy federal tax-and-spending
  - More if long-term interest rates don’t rise more
  - More if housing markets don’t stabilize
- **Housing not built on solid foundation**
### Forecast for 2006

<table>
<thead>
<tr>
<th></th>
<th>2006Q2</th>
<th>2006Q4</th>
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<tbody>
<tr>
<td><strong>GDP growth (%)</strong></td>
<td>3.5</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Budget deficit ($ billion)</strong></td>
<td>302</td>
<td>256</td>
</tr>
<tr>
<td><strong>Inflation (%)</strong></td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Oil price ($/barrel)</strong></td>
<td>59</td>
<td>52</td>
</tr>
<tr>
<td><strong>Federal Funds Rate (%)</strong></td>
<td>4.89</td>
<td>5.00</td>
</tr>
<tr>
<td><strong>10-year Treasuries (%)</strong></td>
<td>5.00</td>
<td>5.25</td>
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New Sheriff in Town:
Ben Bernanke as Fed Chairman

• Ben and the Fed will tell more and tell it sooner
  – What they see happening currently
  – What they worry might happen
  – What they might do about it
    • Inflation targets?

• Greater reliance on established economic relationships

• Faster and bigger changes in interest rates

• Will openness and transparency survive the first crisis?
  – European Central Bank transparency roiled markets
    • So they reverted to vague and incomprehensible “Greenspeak”

• Housing-related issues might give us a first test
Is There Some “Pop” Left in Housing?

• Perhaps still some more upside
  - Prices, sales, construction, associated markets like furniture and insurance

• Fed admits there is “froth in local markets”
  - Lots of bubbles in smaller areas

• Froth covers the coasts, at least

• As lots of its little bubbles pop, even froth flattens
Are We Watching Froth Flatten?

- We are probably past the peaks in some parts of housing
  - Purchase and refinance mortgage applications
  - New and existing home sales
  - House price increases
- We are probably near the peaks in
  - Homebuilding
  - House price levels
- Probably haven’t approached peak of unsold homes
- Slowdowns are likely for some parts of housing markets
  - Homebuilding
  - Mortgage financing
  - Consumer spending financed by home equity
The Outlook for Interest Rates and Repercussions on CU Earnings

• Based on projected interest rate paths thru 2007
  - Higher Fed Funds, 1-year, and 10-year Treasury rates

• Based on current assets and liabilities
  - Assuming no changes in balance sheet composition

• Based on how A&L rates track market rates
  - CU rates may move lower and slower

• Based on how quickly A&Ls reprice
  - Generally assets reprice more slowly than liabilities
Responses of Some CU Rates
Are Low and Slow

• Glaciers
  - Rates for regular shares and drafts track market rates loosely
  - Rates for new fixed rate mortgages track market rates
  - But existing fixed rate mortgages reprice only as they terminate
    • And stay in the books seemingly forever

• Walkers
  - Rates for new auto loans track market rates
  - Existing auto loans also reprice only as they terminate
    • But are paid off much faster than mortgages

• Gazelles
  - ARMs reprice speedily and their rates track fully
  - New certificates reprice fairly speedily and their rates track fully
Market Interest Rates Rise First, ROAs Decline Later

• We project interest rates for several quarters for loans and savings
• Use them to get projections for ROA
  – Baseline scenario
  – Also, some weaker, some stronger scenarios
• Several scenarios point to weaker ROAs
Assets and Liabilities at Credit Unions
(Percent of 2005 National CU Assets)

• Assets
  - Fixed mortgages (14%)
  - Variable mortgages, auto loans, etc. (41%)
  - Uncollateralized loans (10%)
  - Investments (31%)

• Liabilities
  - Share drafts (12%)
  - Regular shares (33%)
  - Money market accounts (16%)
  - Certificates, IRAs, and borrowings (29%)
Assets:
Tracking and Repricing Assumptions

• **Fixed mortgages**
  - Rates track 10-year Treasuries plus a fixed premium
  - Reprice in 10 years (or 1/40 per quarter)
    • Loans repriced faster in their way down, didn’t they?

• **Variable mortgages, equity lines of credit, etc.**
  - Rates track 1-year Treasuries plus a fixed premium
  - Reprice quarterly in full
Assets:
Tracking and Repricing Assumptions

- **Auto loans**
  - Rates track 1-year Treasuries plus a fixed premium
  - Reprice in 2½ years (or 1/10 per quarter)

- **Uncollateralized loans**
  - Rates track the Fed Funds rate plus a fixed premium
  - Reprice in 1 year (or ¼ per quarter)

- **Investments**
  - Rates track the Fed Funds, 1-year, and 10-year rates
  - Reprice based on their maturities
Liabilities:
Tracking and Repricing Assumptions

• Certificate shares, IRAs, and borrowings
  - Rates track 1-year Treasuries minus a fixed premium
  - Reprice in 1 year (or ¼ per quarter)

• Draft, regular, and money market shares
  - Rates track the Fed Funds rate
    • But partially and with a variable lag
    • Each with different gaps to the Fed Funds rate
  - Reprice quarterly in full
Forecasted ROA Through 2007 Based on Interest Rate Forecast

Marketwide Interest Rates (%)

ROA (basis points)

- CU ROA
- 10-year Treasury rate
- Fed Funds rate

05Q4 06Q1 06Q2 06Q3 06Q4 07Q1 07Q2 07Q3 07Q4
Rising Rates Reduce ROA

- Larger, longer liability rate rises reduce ROA
  - From 106 bp in 2002
  - To 85 bp in 2005
    - Since 2002, national ROA has already fallen 21 bp
  - To 88-75 bp in 2006
    - Falls an additional 10 bp
  - To 67-47 bp in 2007
    - Falls an additional 28 bp
    - Total fall of 59 bp compares to 48 bp in the 1990s
Three ROA(d)s for ROA

• High ROA(d)
  - Low rates paid to members
  - Roughly maintain current, atypically large shortfall below the Fed Funds rate
  - Growth of savings likely to be anemic

• Middle ROA(d)
  - Return by 2007Q4 to rate gaps typical during long expansions

• Low ROA(d)
  - High rates paid to members
  - Unlikely return by 2007Q4 to average historical rate gaps
  - Net worth ratios likely to decline

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<thead>
<tr>
<th>ROA(d)s</th>
<th>Spread of Fed Funds rate over</th>
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<tr>
<td></td>
<td>Share drafts</td>
</tr>
<tr>
<td>High</td>
<td>4.0</td>
</tr>
<tr>
<td>Middle</td>
<td>3.5</td>
</tr>
<tr>
<td>Low</td>
<td>2.5</td>
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Alternative Paths for ROA

- High ROA(d)
- Middle ROA(d)
- Low ROA(d)
As Usual, CU Interest Rate Risks Have Already Been Taken

• CUUs often benefit from falling interest rates
  – Typically, more long assets than long liabilities
    • That is, more longer-term, fixed-rate loans and shorter liabilities
  – As NCUA may have brought to your attention

• Shift to variable-rate or short loans?
  – Low ARM rates weren’t appealing in 2002
  – Slow process if wait until long loans terminate
    • Long, quite likely way to accept the pain
Short- and Long-Term Interest Rates, Historically, Danced to Same Tune

 ![Graph showing 10-year Treasury Rate and Federal Funds Rate over time.](image-url)

- **10-year Treasury Rate (%)**
- **Federal Funds Rate (%)**

Year range: 1955 to 2005

Percent range: 0 to 20

April 6, 2006
Before 2000,
Higher Short Rates Raised Long Rates

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<tr>
<td>Federal Funds rate</td>
<td>3.00</td>
<td>6.00</td>
<td>+3.00</td>
</tr>
<tr>
<td>10-year Treasury rate</td>
<td>5.97</td>
<td>7.47</td>
<td>+1.50</td>
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<thead>
<tr>
<th></th>
<th>June 1999</th>
<th>May 2000</th>
<th>Change</th>
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<tbody>
<tr>
<td>Federal Funds rate</td>
<td>4.75</td>
<td>6.50</td>
<td>+1.75</td>
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<tr>
<td>10-year Treasury rate</td>
<td>5.90</td>
<td>6.44</td>
<td>+0.54</td>
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## The Greenspan Conundrum

- **In Webster’s dictionary**
  - It is “puzzle, unanswerable, unsolvable”

- **In Greenspan’s dictionary**
  - “Conundrum” is a mistake – and implicitly a warning

- **Now, conundrum means “long rates are too low”**
  - The bond market has it wrong
  - The bond market will, eventually, get it right
  - Long rates are going to rise, more

### Table: Change in Interest Rates

<table>
<thead>
<tr>
<th></th>
<th>June 2004</th>
<th>March 10, 2006</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funds rate</td>
<td>1.00</td>
<td>4.50</td>
<td>+3.50</td>
</tr>
<tr>
<td>10-year Treasury rate</td>
<td>4.73</td>
<td>4.78</td>
<td>+0.05</td>
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</table>
A Picture of a Conundrum:
As Short-Term Rates Rose, Longs Fell

![Graph showing the relationship between years to maturity and interest rates for June 2004 and March 10, 2006. The graph indicates that as short-term rates rose, long-term rates fell.]
Is His Puzzle Your Answer?

• What if CUs sell existing, longer loans?
  - Usually, today feel present value of the future pains
    • At higher long rates, discounts mean capital losses

• Now, the “conundrum” may help out
  - Conundrum of low long rates
    • Equals conundrum of high prices on long assets (FRMs)
  - Perhaps sell long assets at surprisingly high prices
    • May be a limited time offer...operators are standing by now
  - If conundrum resolved, long rates rise and values fall

• In 2002, long assets may have been the right choice
  - Big spread of longs over shorts rewarded the risks
  - Is about ½% enough reward to hold FRMs rather than ARMS?
    • It’s a “Big Ben Bet”
But, Will Long Rates Rise, More?
Or, Some Dirty Laundry

• Many confident, eminent forecasters predicted
  – Long rates would rise in 2003-04
    • In anticipation of rising Fed Funds rates
  – After all, long rates rose a lot in 1994 and 1999

• Long rates still haven’t risen all that much
  – In lots of good, but wrong, company

• Lesson
  – Prepare for other outcomes (i.e., wrong forecasts)
Some Other, Plausible Scenarios

• Economy roars ahead
  – Rates rise more than forecast
  – Note: Since 2003, the Fed Funds rate has risen more than predicted by Fed Funds futures markets

• Or, economy recedes
  – Higher rates and oil prices prove too burdensome
  – Housing froth could flatten
    • If big, fast, and widespread enough, percussion goes “Pop”!
  – Fed funds rate cut to partially offset repercussions
If the Economy Roars Ahead and Rates Rise More Than Forecast

- ROA (w/ 25 bp more)
- ROA (w/ 125 bp more)
A Scenario for Some Rate Cuts

• Most likely due to a much weaker economy
  – Significant rise in unemployment
  – House price froth flattens
    • Taking lots of housing-related jobs down with it
    • Increasing mortgage defaults and discounts
      – Particularly on “seconds”, HELOCs, etc.?

• One scenario for some rate cuts
  – Loan loss provisions rise from 0.40 to 0.48%, which would be highest percentage over past 20 years
    • Banks’ provisions vary more, mostly due to business lending
      – Rose by 40 bps – from 0.55 in 1988 to 0.95 in 1990
      – Rose by 30 bps – from 0.38 in 1999 to 0.68 in 2002
If a Weaker Economy Prods the Fed To Cut Rates From Current Levels
Summary

• Short and long interest rates may rise a bit more

• CUs are in the interest rate risk business
  – Rate rises reduce ROA
  – Conundrum may offer a way out, for a limited time

• ROAs declines may be large and predictable
  – 20-30 bp declines in ROAs shouldn’t be surprising
    • Aggregate CU ROAs fell 50 bps over 1993-1999

• Forecasts miss the bulls-eye
  – For short and long rates, for GDP, for house prices

• Risk management requires allowing for misses