The Economic Outlook

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Inforum
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The Short Run Overview

Recession was long, deep, and wide. But its over.

Credit Crisis was potentially catastrophic, but bailouts, while messy, have been largely successful. What’s next?

Massive fiscal stimulus is helping to spark recovery, but is due to run its course in 2011/12.

Because of slow personal consumption growth, recovery will be very slow.
**Longer term forecast (to 2030):**

We think the current crisis will greatly accelerate a transformation of growth in the economy.

- Lower labor force growth slows potential growth, Potential GDP growth between 2.0 – 2.5%.

- Weaker dollar, rising savings rate changes economic structure toward exports and away from consumption.

- Slower inflow of foreign capital will force external and government balances towards equilibrium.

- Health care spending (with or without reform) will dominant future of government spending and domestic production growth.

- All roads lead to tax reform. To pay for entitlements, government revenues will have to rise. How this is accomplished is important.
Residential investment, at historic lows, is yet to revive.
Worst Post-War Recession in GDP Terms

Real GDP year-on-year growth
Thankfully, worst of job losses appear to be over

Net job creation, payroll survey, thousands

[Graph showing net job creation from 1960 to 2010 with fluctuations ranging from -800 to 1000.]
Pent up demand for clunkers?

U.S. Auto Industry

Graph showing sales (millions per year) and production (thousands per month) from 1993 to 2009. The graph includes two lines: one for light weight vehicles sales (autos & light trucks) and one for U.S. production. The title at the top of the graph reads, "Pent up demand for clunkers?"
Fiscal Situation Deteriorates...

Federal Receipts and Expenditures, Percent of GDP

Expenditures

Receipts

2009Q3


rec_gdp  exp_gdp
..Alarmingly

Federal Net Borrowing, Percent of GDP

[Graph showing Federal Net Borrowing, Percent of GDP with a sharp decline in 2009Q3]
# Short-term Outlook Overview

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<tr>
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<th>00-06</th>
<th>06-07</th>
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<td>Current account</td>
<td>-803</td>
<td>-729</td>
<td>-713</td>
<td>-439</td>
<td>-599</td>
<td>-646</td>
<td>-674</td>
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<td>Federal deficit</td>
<td>-254</td>
<td>-313</td>
<td>-795</td>
<td>-1507</td>
<td>-1490</td>
<td>-1260</td>
<td>-1230</td>
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</table>
Why Recovery will be slow:
Housing prices back to 2004 level by end 2013

Case-Shiller (20-city) Home Price

Core Inflation

Index=100 in 2000
Household Net Worth: Looking Up, Slowly

Household Net Worth, Billions of $

$14 trillion!
Policy Overview

Please distinguish between the TARP/QE and the Stimulus.

Both were messy, inefficient, and unfair.

Both were essential.

Public’s ire appears greater against the “bailouts” (TARP).

But has the Stimulus really raised public’s attention to long-term fiscal problem?
Lags, lags, lags

- Monetary policy
- Fiscal policy
- Cost/Pricing
- ER Pass-through
- Asset balance adjustment (Ricardian Equivalence)
- Useful to think in three-year (LIFT does)
Financial/Monetary Policy

- Fed hopes to eventually drain liquidity without undermining growth. When and how?
- How and when can bank and auto equity be unwound?
- New and effective financial regulatory regime crucial for sustained economic health.
- Regulate systemic risk vs. Eliminating too-big-to-fail institutions.
Fiscal Policy

- Is the Stimulus working? Yes!
- It will be much more important over next 4-6 quarters.
- Short-term stimulus could be enhanced through credible medium-term deficit reduction program.
- Long-term growth would be boosted through comprehensive tax restructuring.
Is the **Stimulus (ARRA)** Working?
Only about 30% has been paid out so far (11/20/09).

The American Recovery and Reinvestment Act of 2009 distributes the $787 billion as follows:

<table>
<thead>
<tr>
<th></th>
<th>Total Recovery Act Funds</th>
<th>Funds Paid Out</th>
</tr>
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<tbody>
<tr>
<td>Tax Benefits</td>
<td>288</td>
<td>92.8</td>
</tr>
<tr>
<td>Contracts, Grants, Loans</td>
<td>275</td>
<td>59.9</td>
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<tr>
<td>Entitlements</td>
<td>224</td>
<td>81.9</td>
</tr>
</tbody>
</table>

*Source: Recovery.gov*
CBO Says it's Working

Impact of ARRA in 2009 Q3

- Change in Real Gross Domestic Product (Percent)
- Change in the Unemployment Rate (Percentage points)
- Change in Employment (Millions of people)

Source: CBO, Estimated Impact of the ARRA on Employment and Economic Output as of September 2009
Predicting the Stimulus Impact

- Alternative stimulus measures have different impacts.
  - Infrastructure
  - Other direct (health research, education, defense, etc.)
  - Transfers (unemployment, food stamps, health insurance, etc.)
  - Tax cuts (personal, AMT, payroll, corporate, etc.)
  - Grants to states (strings, no-strings, spending/taxes/savings)

- Dynamics of stimulus multipliers
  - What is the timing of the impacts? (impulse > 3 yrs.)
  - One/three year stimulus vs. permanent spending
  - Multipliers could be larger in slack economy.
  - Crowding-out usually occurs with a lag.

- Exceptional circumstances
  - Fed reaction during a liquidity trap.
  - Foreign investors reaction during massive deficit expansion.

- Longer-term impacts
  - Addition to and productivity of human capital/infrastructure.
  - “Green Investment”: Energy efficiency and reduced oil dependence.
In a big hole: the GDP Gap

Inforum’s annual GDP Gap

CBO’s GDP Gap

2009
Ricardian Equivalence

- Does enhanced govt saving (dissaving) lead to enhanced national saving (dissaving)?
- Or, will private sector react, anticipating higher taxes, offsetting the change in government dissaving?
- Cross country empirical studies show a .40 to .65 offset of government dissaving by private saving.
- Does this apply in U.S.? Look at the graphs.
- R.E. is important factor for analyzing the U.S. “twin deficits.”
How Do we Measure Multipliers?

- The impact multiplier \( \left( \equiv \frac{\Delta Y(t)}{\Delta G(t)} \right) \).

- The multiplier at some horizon \( N \left( \equiv \frac{\Delta Y(t + N)}{\Delta G(t)} \right) \).

- The peak multiplier, defined as the largest \( \left( \equiv \max_N \frac{\Delta Y(t + N)}{\Delta G(t)} \right) \) over any horizon \( N \).

- The cumulative multiplier, defined as the cumulative change in output over the cumulative change in fiscal expenditure at some horizon \( N \left( \equiv \frac{\sum_{j=0}^{N} \Delta Y(t + j)}{\sum_{j=0}^{N} \Delta G(t + j)} \right) \).
LIFT says its working!

Increase in Job-years due to ARRA (stimulus base vs. alternate)

Thousands of jobs

![Graph showing job years increase due to ARRA]
GDP boosted by stimulus in short term

Percentage Increase Real GDP (stimulus base vs. alternate)
Multipliers

Real GDP change over real stimulus spending

![Graph showing the real GDP change over real stimulus spending with labels for 'impulse' and 'cumulative'. The graph demonstrates the economic impact of stimulus spending over time.]
Longer term forecast (to 2030):

We think the current crisis will greatly accelerate a transformation of growth in the economy.

- Lower labor force growth slows potential growth, Potential GDP growth between 2.0 – 2.5%.

- Weaker dollar, rising savings rate changes economic structure toward exports and away from consumption.

- Slower inflow of foreign capital will force external and government balances towards equilibrium.

- Health care spending (with or without reform) will dominate future of government spending and domestic production growth.

- All roads lead to tax reform. To pay for entitlements, government revenues will have to rise. How this is accomplished is important.
Oil/natural gas prices steady in real terms

Nominal Price indices: 2005 = 100
### Long Term Overview

**Real (inflation-adjusted) Quantities**  
**Average Annual Growth Rates, Percent**

<table>
<thead>
<tr>
<th></th>
<th>12-15</th>
<th>15-20</th>
<th>20-30</th>
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<tr>
<td>Gross domestic product</td>
<td>2.8</td>
<td>2.4</td>
<td>2.4</td>
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<tr>
<td>Personal consumption</td>
<td>2.1</td>
<td>2.2</td>
<td>2.0</td>
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<tr>
<td>Nonresident structures</td>
<td>8.8</td>
<td>2.9</td>
<td>1.4</td>
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<tr>
<td>Equipment investment</td>
<td>6.5</td>
<td>4.0</td>
<td>3.0</td>
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<td>6.2</td>
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<td>7.8</td>
<td>5.8</td>
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<td>4.8</td>
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<td>3.0</td>
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<tr>
<td>Government</td>
<td>0.8</td>
<td>1.2</td>
<td>1.2</td>
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<tr>
<td>GDP deflator</td>
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<td>2.0</td>
<td>2.0</td>
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<tr>
<td>Consumption deflator</td>
<td>2.6</td>
<td>2.2</td>
<td>2.2</td>
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<tr>
<td>Population</td>
<td>0.8</td>
<td>0.8</td>
<td>0.8</td>
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<tr>
<td>Labor force</td>
<td>0.7</td>
<td>0.8</td>
<td>0.5</td>
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<tr>
<td>Employment</td>
<td>1.4</td>
<td>0.9</td>
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<tr>
<td>Labor productivity</td>
<td>1.4</td>
<td>1.5</td>
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**Nominal Quantities, Billions of Dollars**

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
<th>2030</th>
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<td>Current account</td>
<td></td>
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<tr>
<td>(% of GDP)</td>
<td>-701</td>
<td>-821</td>
<td>-398</td>
</tr>
<tr>
<td></td>
<td>-3.8</td>
<td>-3.5</td>
<td>-1.1</td>
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<tr>
<td>Federal net borrowing</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(% of GDP)</td>
<td>-1259</td>
<td>-1282</td>
<td>-749</td>
</tr>
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<td></td>
<td>-6.8</td>
<td>-5.5</td>
<td>-2.1</td>
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Long term potential growth: strong productivity growth, low labor force growth

Difference in logs

GDP
Productivity
Labor force
Household Savings Rate

New long term trend will drive slow consumption growth
Exchange rate index

FRB indices

Broad currencies

Major currencies

maj_curr

broad_curr

Real import and export growth

Percentage growth


dlexN  dlimN

exports
imports

-20.0 -15.0 -10.0 -5.0 0.0 5.0 10.0 15.0
Current account deficit: soft landing

Billions of dollars


curr_acct  net_trade  net_income  net_transfer

Current account
Industry employment shares: Productivity growth must come from all sectors
American Objectives for Health Care Reform

- We want more, more, and more.
- We want to pay less, less, and less.
- Can we have an adult conversation?
The U.S. pays much more for Health Care...

Figure B-4: Relationship between national income per capita and health care spending, OECD Countries, 2007

Source: OECD Health Data 2009
But health outcomes are generally inferior.

Source: Nolte and McKee, 2008
Tax subsidies for health are unfair and boost (wasteful?) expenditures

<table>
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<tr>
<th>Insurance</th>
<th>Employer Provided</th>
<th>Individual</th>
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<tr>
<td>Person</td>
<td>A</td>
<td>B</td>
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<tr>
<td>Premium Cost</td>
<td>12000</td>
<td>12000</td>
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<tr>
<td>(including employers)</td>
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<td></td>
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<tr>
<td>Income</td>
<td>150,000</td>
<td>50,000</td>
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<tr>
<td>Tax bracket</td>
<td>30%</td>
<td>15%</td>
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<td>Tax subsidy</td>
<td>3600</td>
<td>1800</td>
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<tr>
<td>Net cost</td>
<td>8400</td>
<td>10200</td>
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Can we “Bend the Curve”?  

National Health Expenditures as Percent of GDP
GDP Plus: National Health Expenditures

Percent Change in NHE minus Percent Change in GDP

"Excess Cost"

5 yr moving average
Decomposing GDP plus between prices and real expenditures

Percent Change in NHE minus Percent Change in GDP

“Excess Inflation”

“Excess expenditure”
Long Run Health Expenditure Situation

- Eliminating inefficiencies, abuse, excess malpractice claims, etc. are one-time gains. Though they are potentially large, they cannot “bend the curve.”

- Driving the slope of the curve: Technology, high income elasticity, and a strong preference for health. Also, strong sentiment for “socializing” many health risks.

- Currently, rationing is accomplished by income and by arbitrary circumstances (where employed).

- Markets for health care contain inherent and crucial failures. They cannot ration health care efficiently or fairly.

- Therefore, the task is to identify the proper role of government.
“Business as usual” is not sustainable now.

U.S. Current Account Balance
percent of GDP

A sustainable scenario
A business-as-usual scenario
Only by balancing federal deficit can we close the current account deficit.
Federal Priorities: Importance of Health Care

Federal spending by function

2008
- Other Entitlements: 33.7%
- Health Care: 21.3%
- Defense: 23.1%
- Non-defense discretionary: 12%
- Interest: 9.5%

2030
- Other Entitlements: 29.7%
- Health Care: 37.9%
- Defense: 13.7%
- Non-defense discretionary: 8.3%
- Interest: 10.5%
Federal receipts and expenditures as percent of GDP
Level of Federal Revenue is less relevant than how it is raised

- High marginal income taxes can retard growth.
- Corporate income taxes are very inefficient.
- Income exclusions for health care insurance, mortgage interest, and other goodies are extremely regressive and counterproductive. As are payroll taxes.
- Energy taxes should include externalities.
- Move away from taxes on capital and labor and toward taxes on consumption and energy (or carbon).
- Radical tax reform will be key to future.