The long road to recovery from the recession of 2007

December 2009 update

Edward (Ned) Hill
Dean, Levin College of Urban Affairs
Cleveland State University

November 28, 2009
World in recession

- International Monetary fund:
  - Global growth was negative in 2009, with an expected 1.6% contraction in global GDP
  - Global GDP growth is expected to rebound to 3.1% in 2010 and 4.2% by 2011; driven by China, India, and Korea

- N. America leads industrial world's recovery
  - Recovery started in 2009 Q3 (July-September)
  - NAFTA a growing region in 2011—do you believe the numbers for Mexico? It has to be energy.
  - Europe - deeper recession than North America, about 1% point lower
  - Japan - back to economic stupor

- Recovery in employment growth will lag. In the US:
  - 1990 recession 9 months long: employment recovered in 32 months
  - 2001 recession 9 months long: employment recovered in 48 months
  - We are in month 19 of the 2007 recession & will it will last for last 22-24 months. When will employment be fully recovered? A guess is 5 years or 60 months.
Recession over? 6 month percent change in GDP
Forecast data from July 2009 on

Forecast data from July 2009 on

Source: HIS Global Insight and USA Today Released October 29, 2009, retrieved November 15, 2009 from
http://www.usatoday.com/money/economy/economic-outlook.htm
World in recovery?
Recent forecasts of annual percent change in real GDP

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<th>Survey results</th>
<th>2009</th>
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Sources: The Conference Board; The Economist; OECD, Economic Outlook, Interim Report; Survey of Professional Forecasters, Philadelphia Federal Reserve Bank; International Monetary Fund, World Economic Outlook
forecast of annual percent change in GDP; forecasts are improving over time

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How broad was the disruption?

Events

1. **Where we were:** Liquidity trap, credit crunch
   - Collateralized debt obligations (CDOs)—mortgage, consumer credit, autos, student
   - Commercial Paper Market
   - Interbank lending, and calls on bank capital
   - Credit Default Swaps (CDS aka: insurance) became the chips at a casino
   - In 2010 the collateralized damage will appear in commercial real estate—you will hear about CCRMO—Collateralized Commercial Real Estate Mortgage Obligations

2. **Where we are:** Macroeconomic problems affect core domestic sectors
   - Finance
   - Automobile assembly
   - Housing related: Construction and building materials, Furniture, Logistics
   - Retail--consumer spending
   - Education
Liquidity trap became evident in Summer 2007; November 2007 interbank lending slows

NBER—the recession started in December 2007 (Declared in November 28, 2008)

September 2008 acceleration of bad news and September 15 look into the abyss of frozen credit markets
  - Sept 15 Bank of America announces intent purchase Merrill Lynch
  - Sept 15 Lehman files for Chapter 11 bankruptcy
  - Sept 16 Reserve Primary Fund breaks the buck
  - Sept 16 The Fed advances $85 billion to AIG
  - Sept 17 SEC bans short selling ban of financial sector stocks

End of the housing bubble removed $3.5 trillion in household wealth from 2006 (4) to 2008(4).

Net worth of households dropped by 20% in 18 months 2007(2) to 2008(4) or $12.9 trillion

Every $1 lost consumer wealth decreases spending by 5 cents over the next two years ($322.1 billion per year)
Public policy questions that still require answers

- How big a deficit? How long do you run a deficit?
- Energy—regulate to a goal or create market incentives?
- How do you regulate?
  - Financial transparency or accounting standards?
  - Can we monitor behaviors to rebuild credit culture & savings culture?
  - Banking and moral hazard: What is a bank? Financial markets are governed by a balance between greed and fear. How do we put fear of failure back in?
  - How do you regulate the shadow financial system and ensure transparency?
  - Automobiles and fuel prices? Do you regulate by constraining choices or by increasing the price of oil used in motor fuel by increasing the motor fuels tax? Do you use the revenue to support general transportation infrastructure investments?
- When will we increase federal taxes to address the long-term structural deficit?
Gross National Product stops falling in July
Quarterly Real GNP and 12-month percent change in Quarterly Real GNP from 1979(1) to 2009(3)


Edward (Ned) Hill
Quarterly data, last data point second quarter of 2009. Recessions are shaded.
Number of people employed in the economy and the Unemployment Rate, monthly 1979 to 2009


Edward (Ned) Hill
Monthly data 1979 to October 2009
Monthly Unemployment Rate & Labor Force Participation Rate
Recovery will be slow 1979 to 2009

New Unemployment claims; High but dropping
The 4-week moving average of new unemployment insurance claims trends down at the end of recessions
A look at the current data: 4 week moving average of new unemployment insurance claims dropping since April 2009

Peak: April 4, 2009


Edward (Ned) Hill

Weekly data, January 2005 to Nov 21, 2009
12 month percent change in employment
Temporary Help industry often shows turning points
Conclusion: Starting to turn; in recovery; not recovered—still grim


Edward (Ned) Hill

Monthly data, not seasonally adjusted
Last data point Oct 2009
4-week average number of continued unemployment claimants has been dropping since late June
Average duration of unemployment is the highest since the 1960s at 26.9 weeks; Median at 18.7; Not dropping yet

The economic disadvantage of the unskilled grows and accelerates.

Retrieved November 18, 2009. Recessions are shaded.

Edward (Ned) Hill

Monthly unemployment rates by level of educational attainment, ages 25 and above.
The American labor force: Employed, unemployed, involuntary part time workers and discouraged workers

<table>
<thead>
<tr>
<th>October 2009</th>
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<tr>
<td>ER</td>
</tr>
<tr>
<td>UR</td>
</tr>
<tr>
<td>Part time</td>
</tr>
<tr>
<td>Discouraged</td>
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Underemployed 15.8%

We aren’t a confident bunch—but getting better
Consumer confidence drop began in January 2004; Increase March to October

Source: St. Louis Federal Reserve Bank, FRED, from University of Michigan, retrieved Nov 15, 2009
Edward (Ned) Hill

1966(1)=100
Monthly data 01/90 to 08/09
Recessions are shaded
CFO economic confidence
More confident in their own firm than in the economy in general

According to USAToday panel of economist’s business investment in the US is projected to start a slow climb in 2010:
Annualized growth rates:
- 2009(3) -2.5%
- 2009(4) -1.6%
- 2010(1) 0.7%
- 2010(2) 2.6%
- 2010(3) 4.4%
- 2010(4) 6.4%
In the US businesses are closing faster than opening

Ratio of openings to closings


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Ratio of number of business starts to closings for the US Total, Service-producing, and Manufacturing. Recessions are shaded

Consequences: Business Dynamics
Business dynamics: Ratio of business openings to closings for Ohio and the nation; Ohio underperforms


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Ratio of business starts to closings for the US and Ohio. All sectors. Data point above 1.0 more openings than closings; below 1.0 than fewer.
Federal Government Savings (deficit) as a percent of Gross Domestic Product; Current near term deficits are defensible; Long term prospects are troubling, Quarterly data 1947 to 2009(1)


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Despite balance budget laws and stimulus funds state & local governments are running deficits

State and local government savings (deficits) 1968(1) to 2009(3)

Source: US BEA, National Income and Product Accounts from FRED, St. Louis Federal Reserve Bank, variable SLDEF, retrieved November 28, 2009

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In billions of $2005 using chain price index for GDP From FRED, St. Louis Federal Reserve Bank, variable GDPCTPI, Retrieved November 28, 2009
Personal Savings are on a long-term downswing
They increase during recessions and for a bit afterward
Currently at 4.5% of after-tax income

Source: US Bureau of Economic Analysis, National Income and Product Accounts, Table 2.6, Personal Income and its Disposition, Monthly, retrieved from FRED, St Louis Federal Reserve Bank
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Monthly data January 1968 to October 2009
November 27, 2009
Commercial Paper (CDO) market falls in mid-2007
Markets are settling
Nonfinancial scaled on right side; Financial and Asset-backed on left

Edward (Ned) Hill
Recessions are shaded
Collateralized Debt Obligation CDO
Discount rate spread in the short term commercial paper market—starting to settle down. Precursor to recovery.

Spreads jump in 2008(3) with market freeze.

Signs of credit problems in commercial paper market 2007(3).

Source: Board of Governors of the Federal Reserve System, download Nov 18, 2009 http://www.federalreserve.gov/releases/CP/#1

Edward (Ned) Hill

Data are daily rates from June 2001 to mid-2009.
The Fed fights systematic risk & becomes the commercial paper market. Signs of recovery in the credit markets

Composition of the Fed’s assets, weekly, from January 2007 to November 3, 2009 in millions of dollars


Edward (Ned) Hill
Weekly data January 2007 to Nov 3, 2009
Red line is the week of September 15, 2008
Banks: The number of troubled institutions accelerates in September 2008

Number of problem banks increase
- 76 to 416 from 2007 to June 2009

Troubled assets explode
- $22B in 2007 to $300B June 2009

Net exports of goods and services as percent of GNP
Trade balance on current account

Balance of payments improving but not enough: dollar will stay weak

Source: National Income and Product Accounts, Table 1.1.6 Real Gross Domestic Product, Chained Dollars, Retrieved November 26, 2009 from FRED, St. Louis Federal Reserve Bank
Trade balance is starting to close thanks to a weakening dollar and the recession; but there is a long way to go.
Financial burdens of households recovering, but still high

Household financial obligations and debt as a percent of
disposable income

Household financial obligations as a percent of
personal disposable income

Household debt service payments as a percent of
personal disposable income

Source: Board of Governors, Federal Reserve System from FRED, St Louis Federal Reserve Bank, retrieved November 19, 2009
Trade weighed value of the dollar reflects its role as a reserve currency— but gravity is reasserting itself due to trade.
Dollar gains begin to moderate in 2009

Monthly data Jan 1999 to Oct 2009; Indexed to relative values in January 1999 when Euro was floated

Source: St Louis Federal Reserve Bank, FRED, retrieved Nov 15, 2009

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Dollar in managed decline against Yuan; Second peg began mid-2008; Makes Yuan cheaper against other currencies as well

Value of the dollar

$ increases in value

$ decreases in value

Brazil: $  
India: $  
Mexico: $  
China: $  
Korea: $  

Source: St Louis Federal Reserve Bank, FRED, retrieved Nov 15, 2009

Edward (Ned) Hill

Monthly data Jan 1999 to Oct 2009; Indexed to relative values in January 1999 when Euro was floated
Oil prices peak in June-July 2008 and crash
What is the long run equilibrium price?
Price of West Texas Intermediate, Closing price on 1st of the month


Edward (Ned) Hill  
Net worth of households and nonprofit corporations lost 20% of value, or $13.9 trillion, in 2 years from 2007(2) to 2009(2). Home equity dropped dramatically. Sign of modest recovery beginning in 2009(2).

Households & Nonprofit organizations lost 21.6% of their net work from the peak value in 2007(2) to 2009(1) from $64.3 trillion to $50.4 trillion.

Households lost 40.8% of their equity in real estate from peak 2005(4) to 2009(1) from $12.5 trillion to $7.4 trillion. A loss of $5.1 trillion.

Net worth expressed in millions of current dollars.

Source: Board of Governors of the Federal Reserve System, Flow of funds Tables, Z1, retrieved November 22, 2009
Variables FL152090005.Q and FL155035065.Q

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Quarterly 1990(1) to 2009(2)
Next update Dec 10, 2009
Housing is becoming more leveraged as equity is withdrawn from houses & houses fall in value. The slide began in 2005(3); signs of recovery 2009(2). The ratio of home equity to replacement value.
As home values decline, mortgage liabilities as a percent of house equity climbs. Involuntary leveraging. Quarterly 2002(4) 200992

Source: Board of Governors of the Federal Reserve System, Flow of funds Tables, Z1, retrieved November 22, 2009
Variables FL155035065.Q and FL153165105.Q

Note: Equity is for Households, while Home mortgages are held by households and Nonprofit organizations
Some recovery
From 2006(2) to 2009(1) Case Schiller Index lost 32.1% value
From 2006(2) to 2009(3) Case Schiller Index lost 27.1% value

Peak 2006(1)
189.93
2009(1):
129.76
2009(3)
137.19

Base value
January 2000

Source: Standard & Poor’s Case-Schiller Home Price Index 2009(3)
www.homeprice.standardandpoors.com retrieved Nov 26,2009
Edward (Ned) Hill
Base value = January 2000
How bad is the loss? It depends on when you bought
Comparison of housing values in the Cleveland Metropolitan area compared to the Case-Schiller 20 metro area composite

Source: Standard & Poor’s Case-Schiller Home Price Index 2009(3)
www.homeprice.standardandpoors.com retrieved Nov 26, 2009
Housing prices recovering thanks to first time homebuyers & bottom feeders
Sunbelt hit hardest; Low demand in Frostbelt

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<th>City</th>
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Source: Standard & Poor’s Case-Schiller Index, September 2009 data
www.homeprice.standardandpoors.com retrieved Nov 26, 2009 from
http://www.macromarkets.com/csi_housing/sp_caseshiller.asp
New housing starts plummet; slide starts in January 2006

Housing market to stay flat through 2010
Conference Board’s November forecast of new housing starts

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<td>830,000</td>
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<td>2010 Q4</td>
<td>910,000</td>
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http://www.conference-board.org/economics/chiefeconomist.cfm
Retrieved Nov 18, 2009
Mortgage default rates are climbing
Gone from predatory defaults to cyclical defaults
Two more rounds of resets due—this will be ugly
National Average above 4.0%; Florida above 12%; Nevada above 14%

4-quarter percentage change in metropolitan housing price index: Cleveland, Cincinnati, Columbus MSA: 1999(1) to 2009 (2)

4-quarter percentage change in metropolitan housing price index: Akron, Dayton, Toledo MSAs 1999(1) to 2009(2)

4-quarter percentage change in metropolitan housing price index: Lima, Mansfield, Youngstown MSAs 1999(1) to 2009(2)


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Commercial Real Estate—all gains from boom nearly gone; index down 90 basis points; values of late 2002
Losses flows into the portfolios of long term institutional investors--pension funds and investment trusts

Composite all commercial real estate
Apartments
Industrial
Retail
Office

Source: Moody’s MIT Center for Real estate Commercial Property Index, retrieved November 27, 2009 from http://mit.edu/cre/research/cred/rca.html
Edward (Ned) Hill
Commercial real estate composite is monthly, components are quarterly, Base 2000(4) = 100
Manufacturing capacity utilization struggles to reach 80%
Collapses in August 2007 when the liquidity trap began

Source: Federal Reserve Bank of St Louis, FRED, from US
Bureau of Economic Analysis, retrieved Nov 15, 2009
Edward (Ned) Hill
Monthly Jan, 1979 to Sept. 2009
Recessions are shaded
Auto & light truck sales walk off a cliff;
Decline starts in January 2006; accelerates September 2007; falls apart September 15, 2008 Annualized monthly car & light truck sale

Source: St. Louis Federal Reserve Bank, FRED, from US Bureau of Economic Analysis, retrieved Nov 18, 2009
Edward (Ned) Hill
Monthly 01/97 to 10/09
Cars and trucks will be made in the United States
North America remains a big market
US production numbers drop; Mexico climbs

<table>
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A tale of 4 clusters: Auto assembly in North America

Old domestic heartland; New Domestic center I-70 - I-75 crosshair; Southeast Corridor

Source: Ohio Department of Development, Office of Strategic Research

Edward (Ned) Hill
What’s next: Realities

- Automotive work will continue to exist—for those that survive this auto depression
- There will be a different set of impacts for communities anchored by an assembly plant and those with parts manufactures
- Just-in-time, fuel costs, and congestion will continue to re-concentrate the industry
- Keys to survival for companies and plants
  - Flexible workforce and flexible work rules
  - Company & supply chain culture will continue to be important
  - No debt—leverage is now the company killer
  - Long term value of the dollar will influence the health of assembly clusters
The performance of the labor market
Changing economic advantage

Failed corporate strategies and old products  Place-based legacy costs and work rules
Returning to Fundamentals

- Balancing economic policy
  - Short run—fight the recession
  - Long run—fight huge structural deficits

- Return to credit culture—both for individuals & banks

- Financial regulation for transparency and monitoring of behaviors; not micromanaging accounting

- Erosion of too big to fail and a move to workout banks

- Dollar will fall again—economic physics will reassert itself
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