


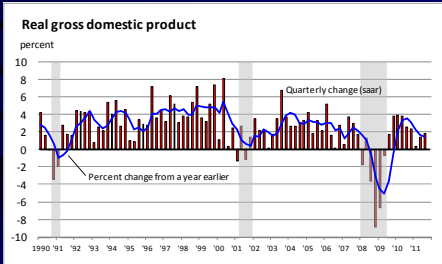
Manufacturing Outlook

Midwest Industrial Energy Efficiency Summit
 Chicago, IL
 January 11, 2012

William Strauss
 Senior Economist
 and Economic Advisor
 Federal Reserve Bank of Chicago



**The "Great Recession" ended in June 2009,
 but the economy expanded by just 1.5% over the past year**




Real gross domestic product

percent

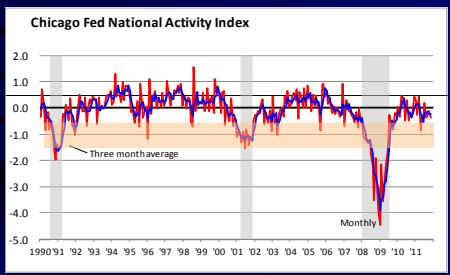
Quarterly change (saar)

Percent change from a year earlier

1990 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11



**The Chicago Fed National Activity Index
 3-month average is below zero**




Chicago Fed National Activity Index

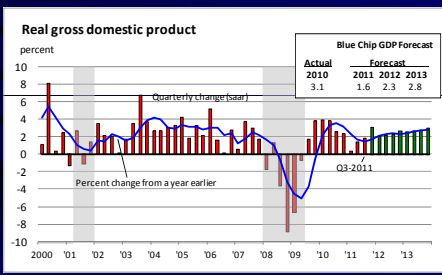
Three month average

Monthly

1990 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11



**GDP is forecast to have grown well below trend in 2011;
 grow slightly below trend in 2012;
 and slightly above trend in 2013**



Real gross domestic product

percent


	Actual	Forecast		
	2010	2011	2012	2013
	3.1	1.6	2.3	2.8

Quarterly change (saar)

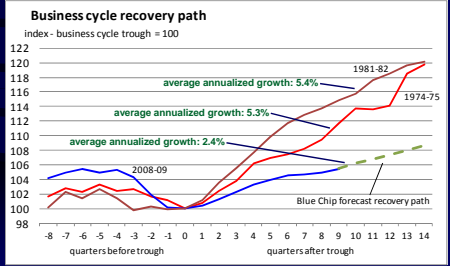
Percent change from a year earlier

Q3-2011

2000 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13



**The forecast path of the current recovery is relatively muted
 compared with past deep recession recovery cycles**



Business cycle recovery path

Index - business cycle trough = 100

1981-82
 average annualized growth: 5.4%


1974-75
 average annualized growth: 5.3%

2008-09
 average annualized growth: 2.4%

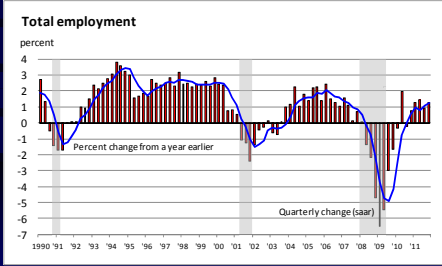
Blue Chip forecast recovery path

quarters before trough

quarters after trough



**Employment fell by over 8.7 million jobs
 between December 2007 and February 2010,
 but it began to rise beginning in March 2010
 and added 1.64 million jobs during 2011**




Total employment

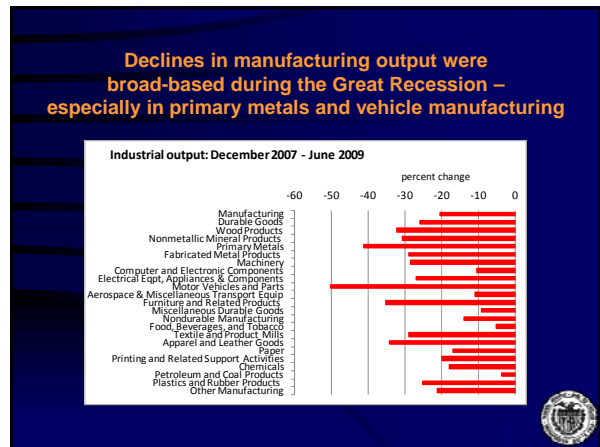
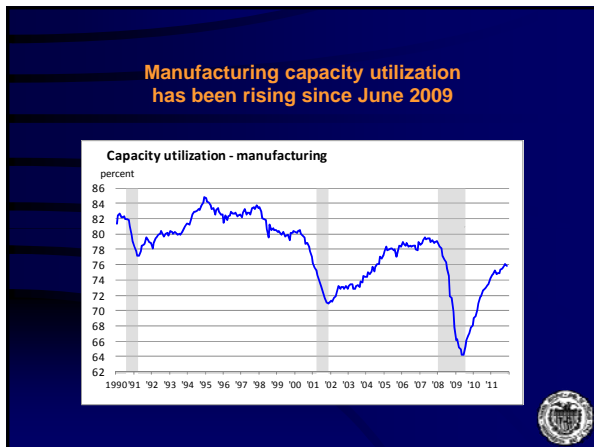
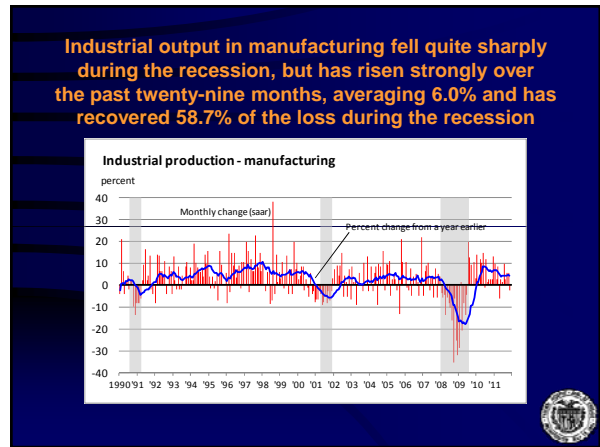
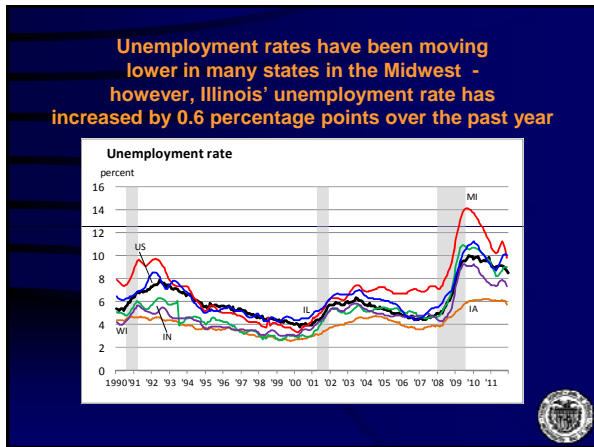
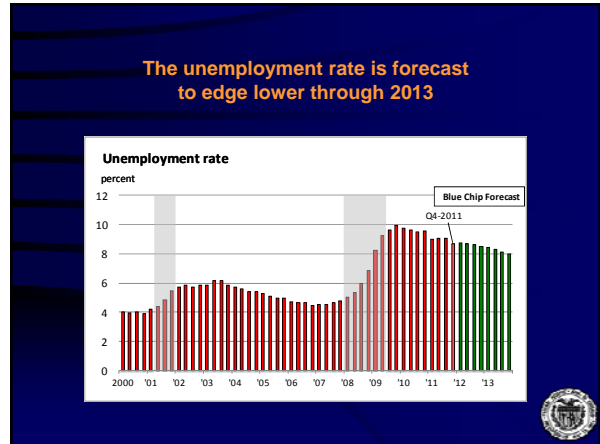
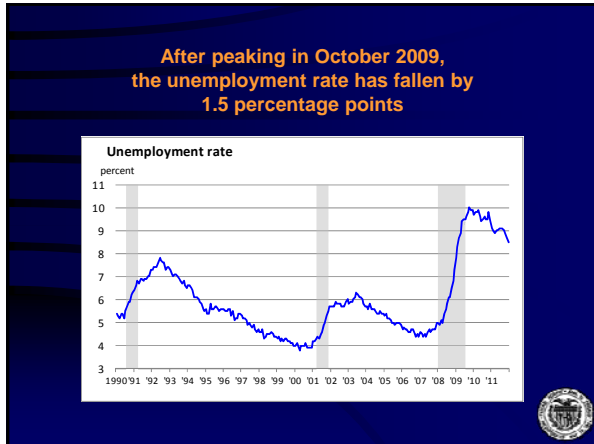
percent

Percent change from a year earlier

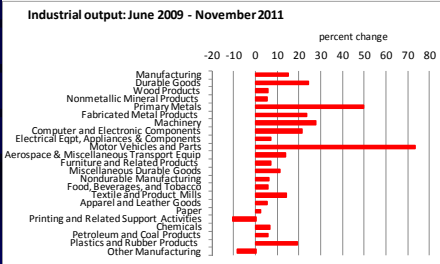
Quarterly change (saar)

1990 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11

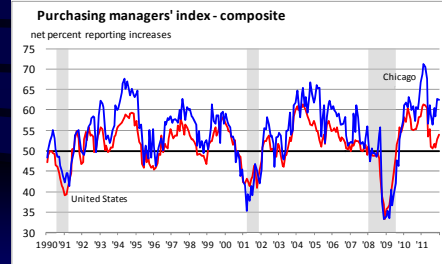




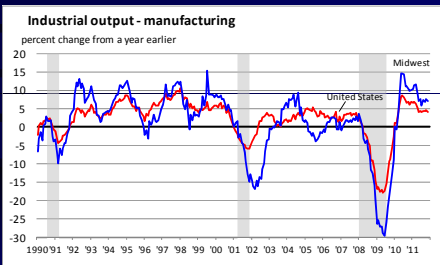
The recovery has also been broad-based with primary metals and automotive manufacturing leading the way



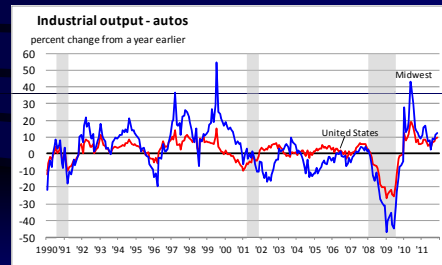
The Chicago purchasing managers index has been significantly above the nation's



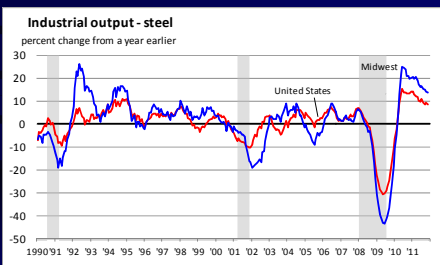
Midwest manufacturing has been outperforming the U.S. manufacturing during the recovery



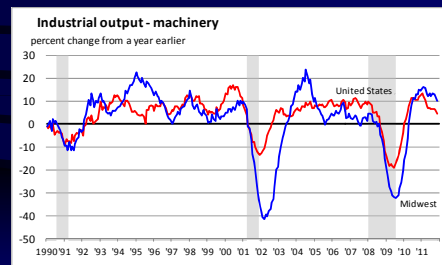
Auto production in the Midwest has been stronger in the Midwest than in the nation

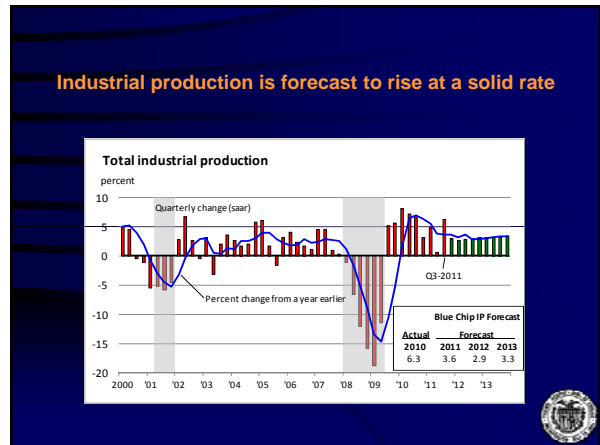
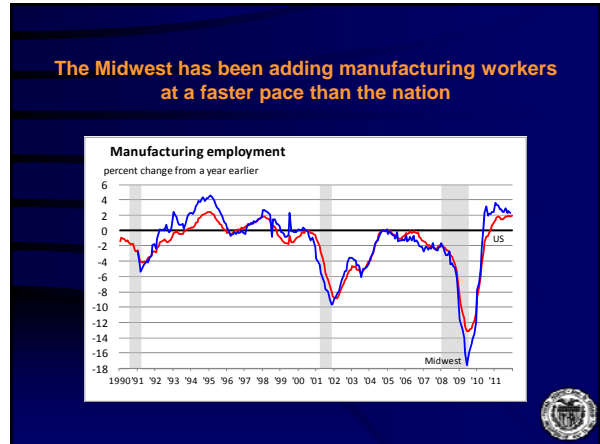


Steel production in the Midwest has been much stronger than in the nation



The same is true for machinery production





- Summary**
- The outlook is for the U.S. economy to expand at a pace below trend this year and slightly above trend in 2013
 - Employment is expected to rise moderately with the unemployment rate edging lower
 - Vehicle sales are anticipated to rise at a good pace
 - Growth in manufacturing output should be solid

www.chicagofed.org
www.federalreserve.gov