

The Renaissance in Manufacturing - Job Savior?

Georgia State University
Atlanta, GA
May 23, 2012

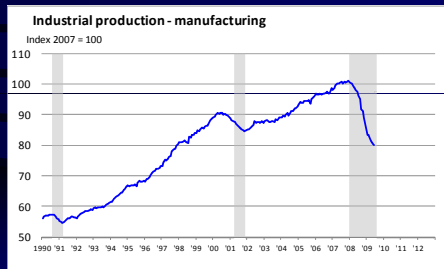
William Strauss
Senior Economist
and Economic Advisor
Federal Reserve Bank of Chicago



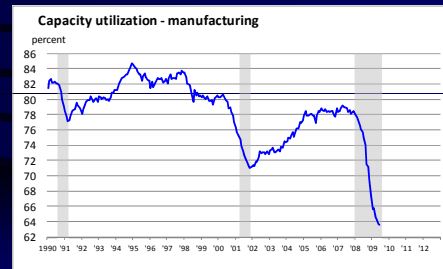
The Setup



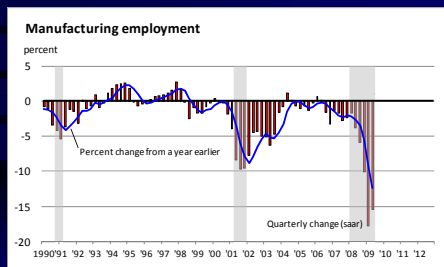
Manufacturing output peaked in December 2007 and fell 20.4% over the following 18 months



Manufacturing capacity utilization collapsed to the lowest rate in 70 years

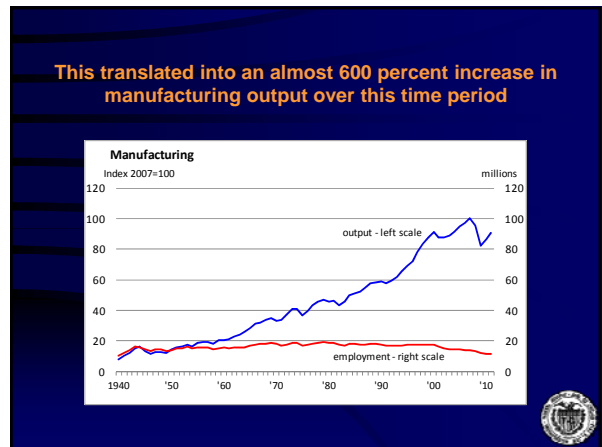
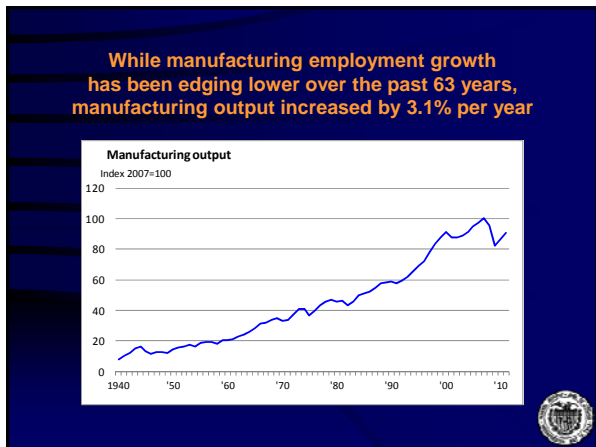
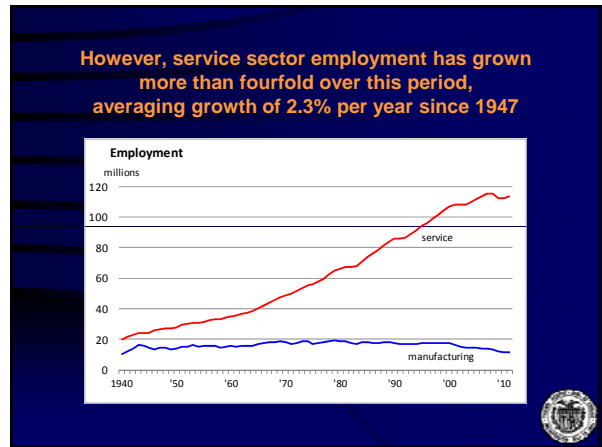
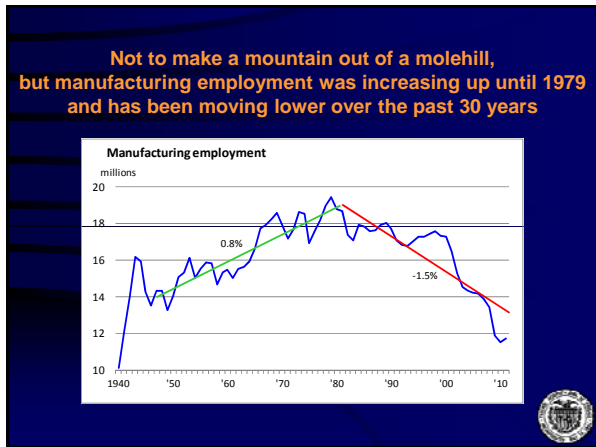
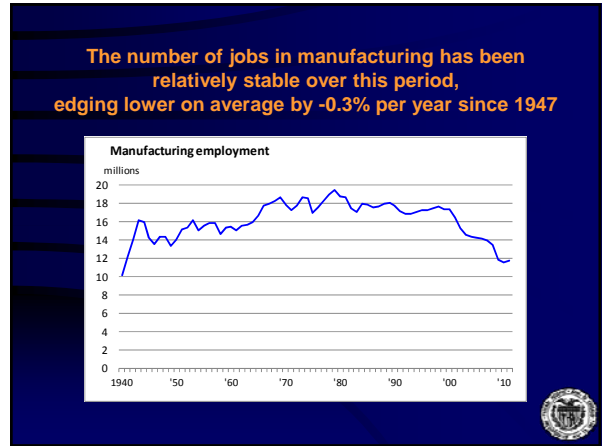
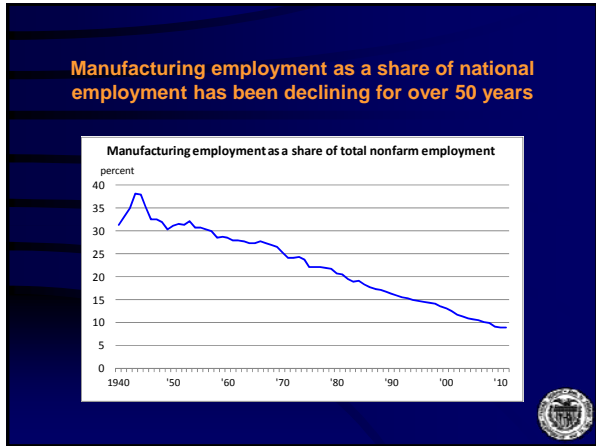


Job declines in the manufacturing sector were significant, with over 2.0 million jobs lost over that same period

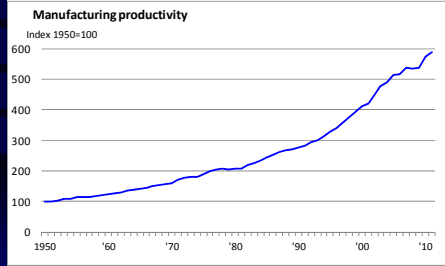


Is the U.S. Losing Its Manufacturing Base?





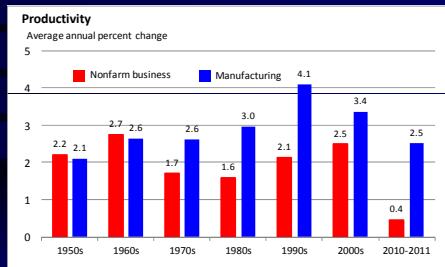
The increase in output can be attributed to strong productivity growth experienced by the manufacturing sector



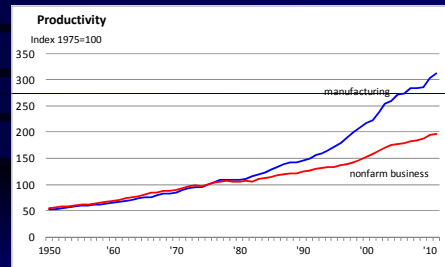
What took 1,000 workers to produce in 1950 takes 170 workers today



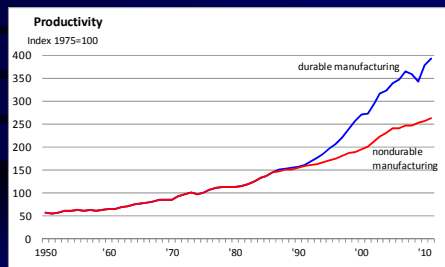
Manufacturing productivity growing faster over the past 40 years



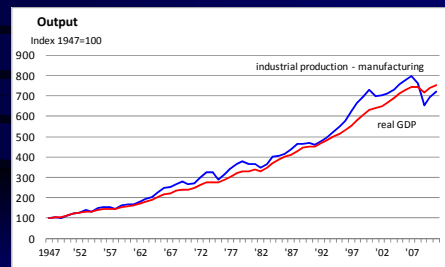
The divergence in productivity appears to have occurred around the mid-1970s



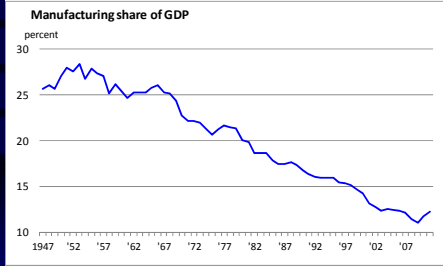
This divergence is especially apparent in durable manufacturing



Strong productivity growth had allowed the manufacturing sector to grow faster than the overall economy

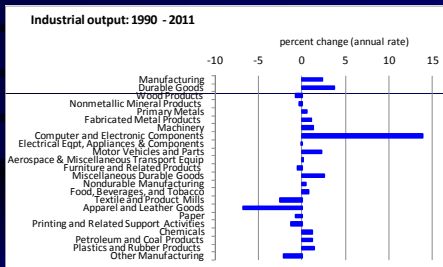


However, lower relative prices in the manufacturing sector has lead to manufacturing comprising a smaller share of GDP over time

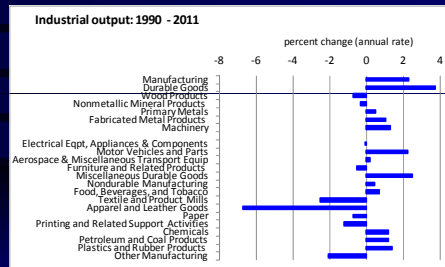


The Manufacturing Sector Continues to Re-invent Itself

Over the last twenty years the fastest growing sector, not surprisingly, has been computer and electronic components

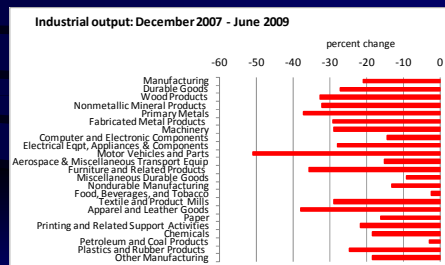


There has been a large number of industrial sectors that have risen and fallen over the past twenty years

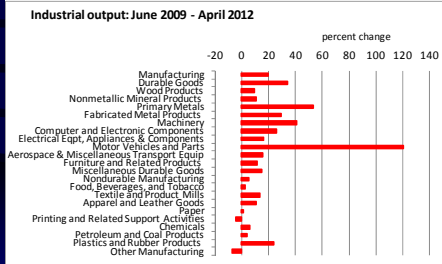


The collapse in manufacturing experienced in 2008-2009 is closely linked with the economic recession

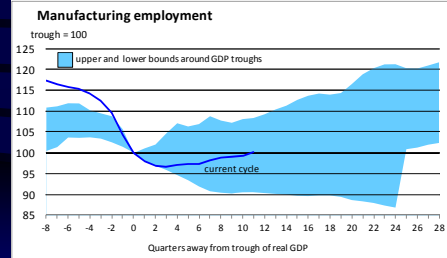
Declines in manufacturing output were broad-based during the Great Recession – especially in vehicle and primary metals manufacturing



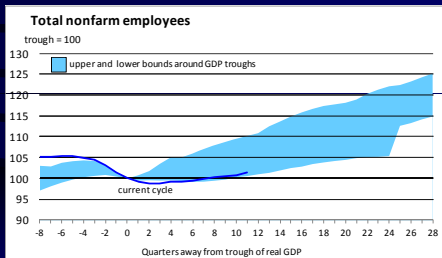
The recovery has also been broad-based with motor vehicles and primary metals manufacturing leading the way



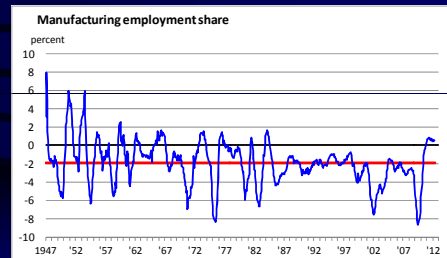
Manufacturing workers have suffered steep employment declines over the current cycle



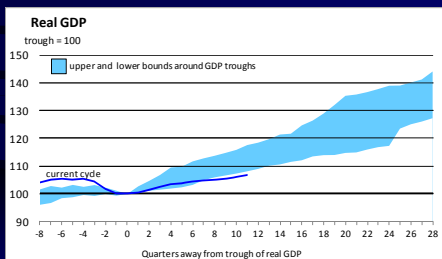
But the overall economy's employment growth also struggled



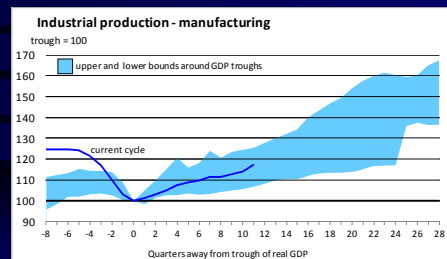
When changes in nonfarm employment are considered, the most recent manufacturing employment downturn is not unprecedented



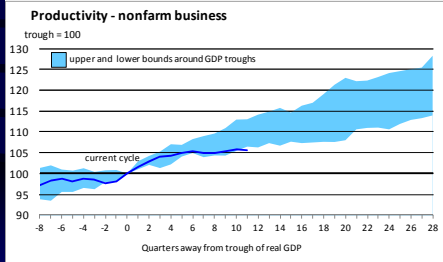
The financial crisis and its aftermath has hampered the current economic expansion



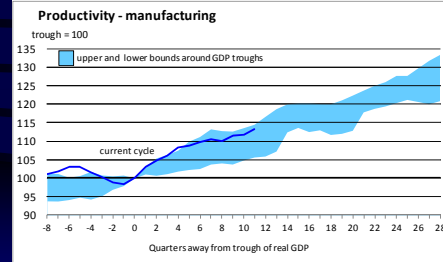
The recovery in manufacturing output is in-line with past industrial recoveries



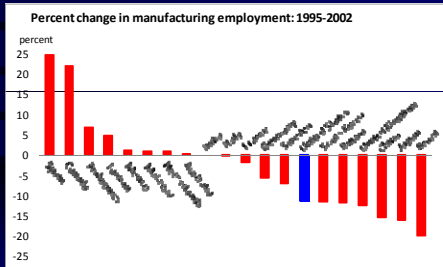
Productivity in the overall economy has grown at a rate near the low-end of previous expansions



However, productivity within the manufacturing sector has grown at a much faster pace

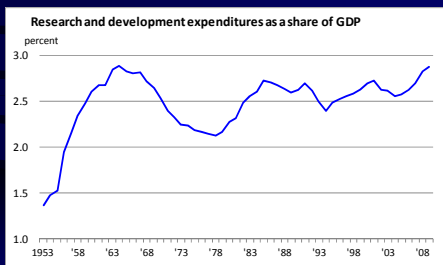


Manufacturing employment losses have occurred across numerous countries – among 20 big economies, 22 million jobs were lost

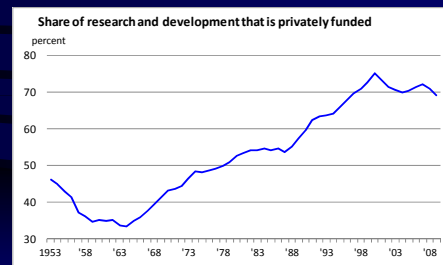


Is the U.S. positioned to continue its strong productivity gains?

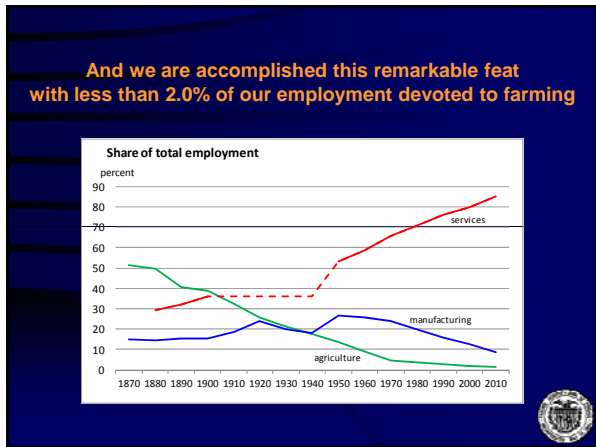
U.S. maintaining its commitment to research and development



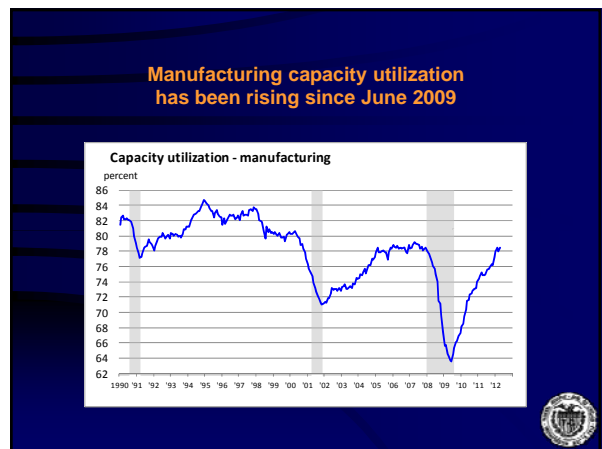
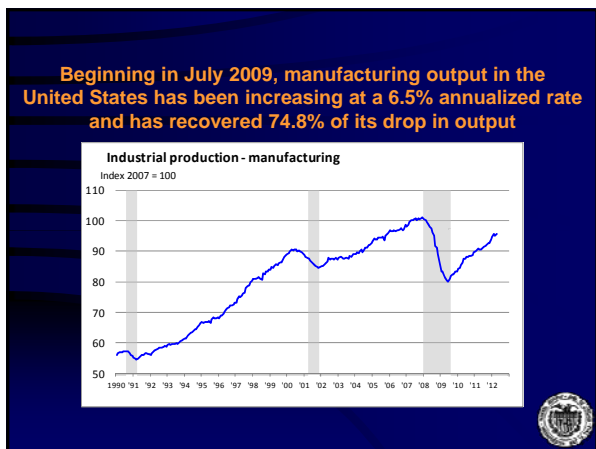
The vast majority of U.S. research and development is being privately funded



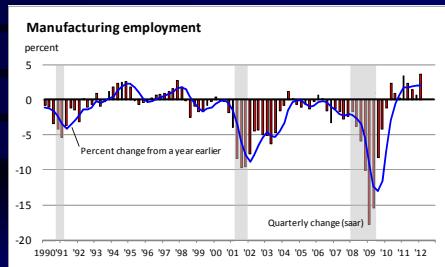
Lessons from the farm sector



The Current Expansion



And while manufacturing jobs have been rising,
they have only recovered 21.1% of the jobs
lost during the downturn



Summary

Manufacturing output is in the process of recovering its losses

The success of manufacturing has been driven by productivity

Manufacturing employment has shown little change over the past 70 years – with a steady decline over the past 30 years

The most recent decline in manufacturing was cyclical, not structural

Profits in manufacturing have outperformed profits for the rest of the nation

The trends that have dominated manufacturing for the past 70 years are suggestive of the future for U.S. manufacturing: ever increasing output with employment representing a smaller share of total employment

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www.chicagofed.org

