

The Outlook for U.S. Manufacturing

Economic Forecasting Conference
J. Mack Robinson College of Business
Georgia State University
Atlanta, GA
November 15, 2006

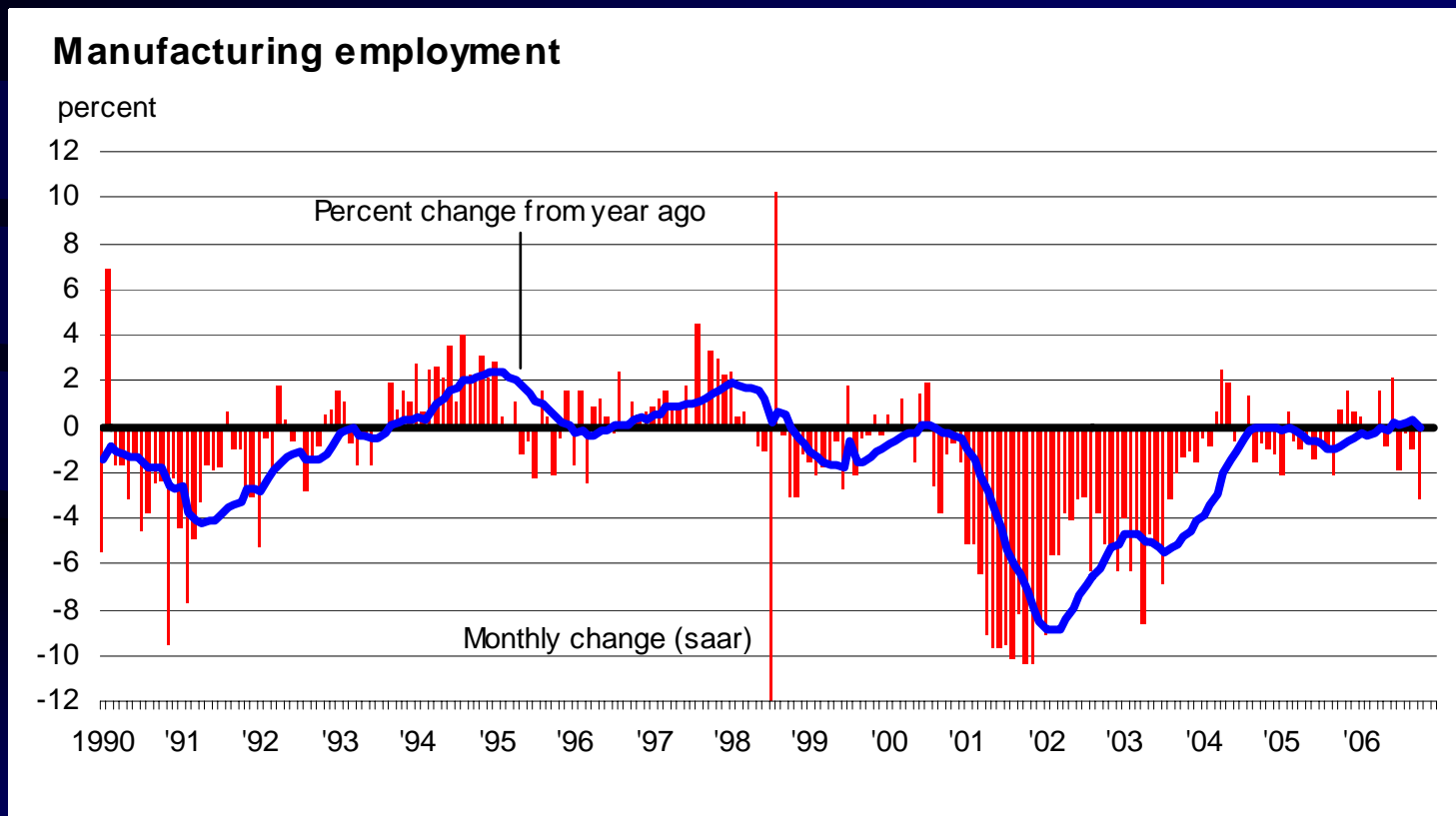
William Strauss
Senior Economist
and Economic Advisor
Federal Reserve Bank of Chicago



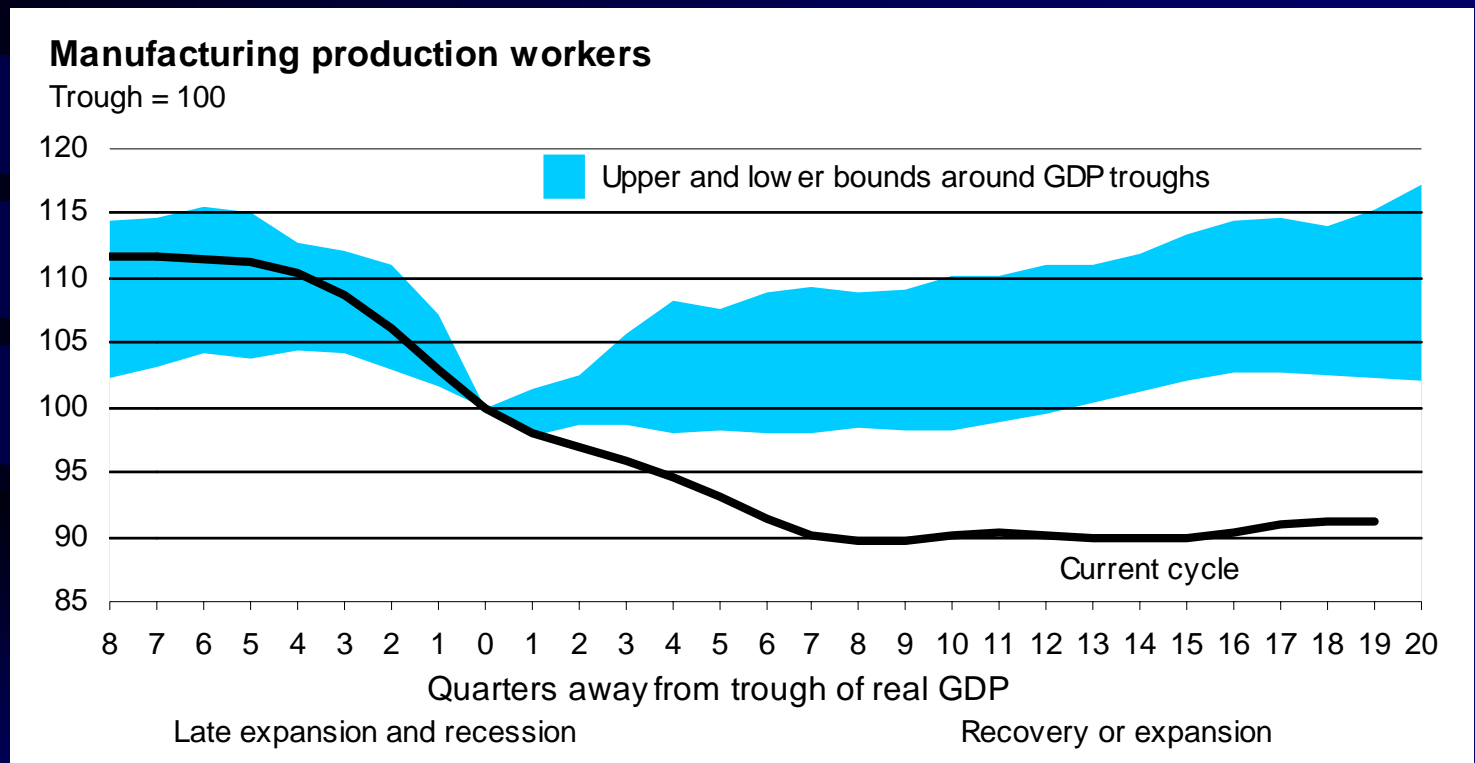
Overall performance



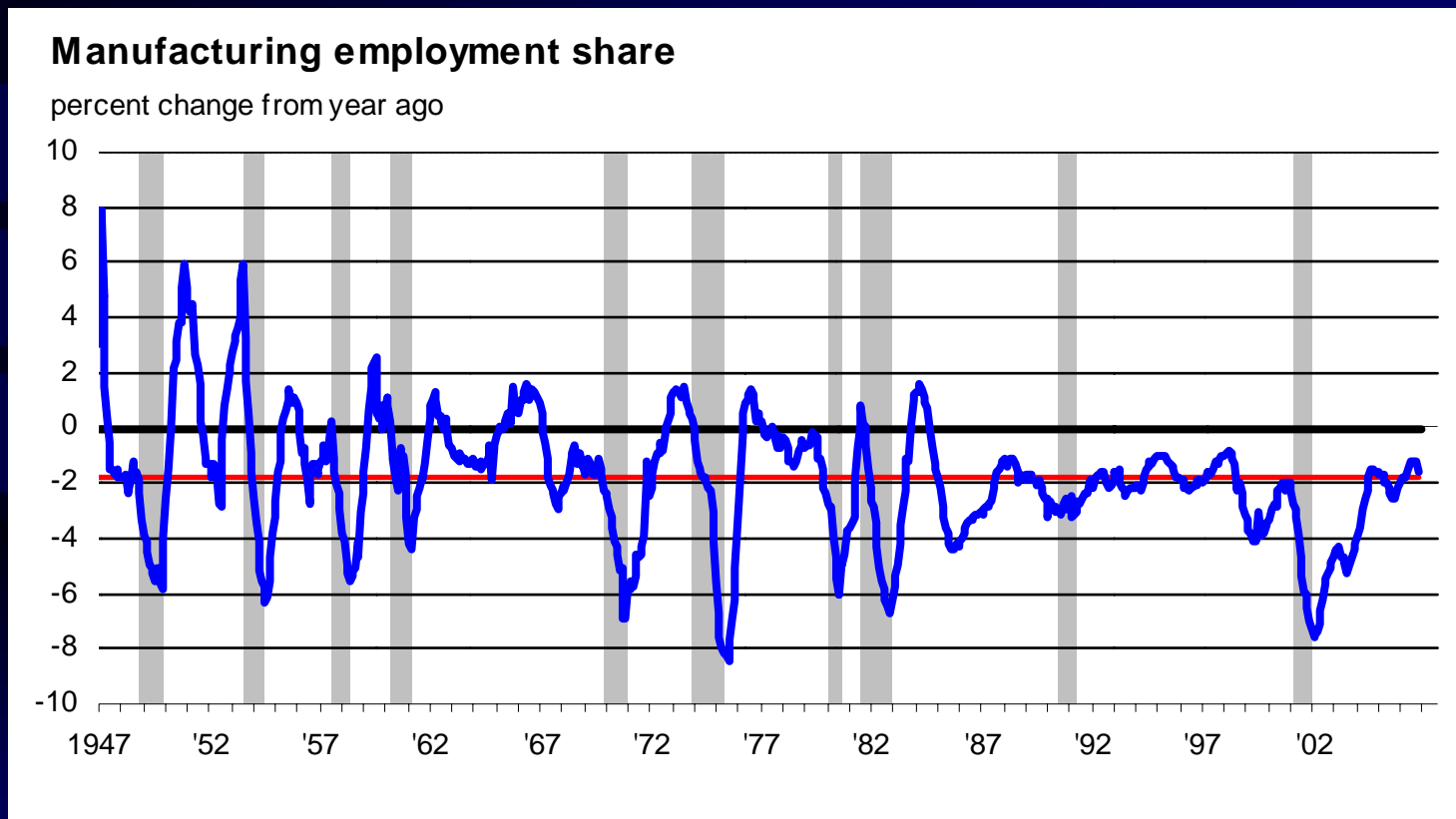
Manufacturing employment decreased by 15,000 jobs over the past twelve months



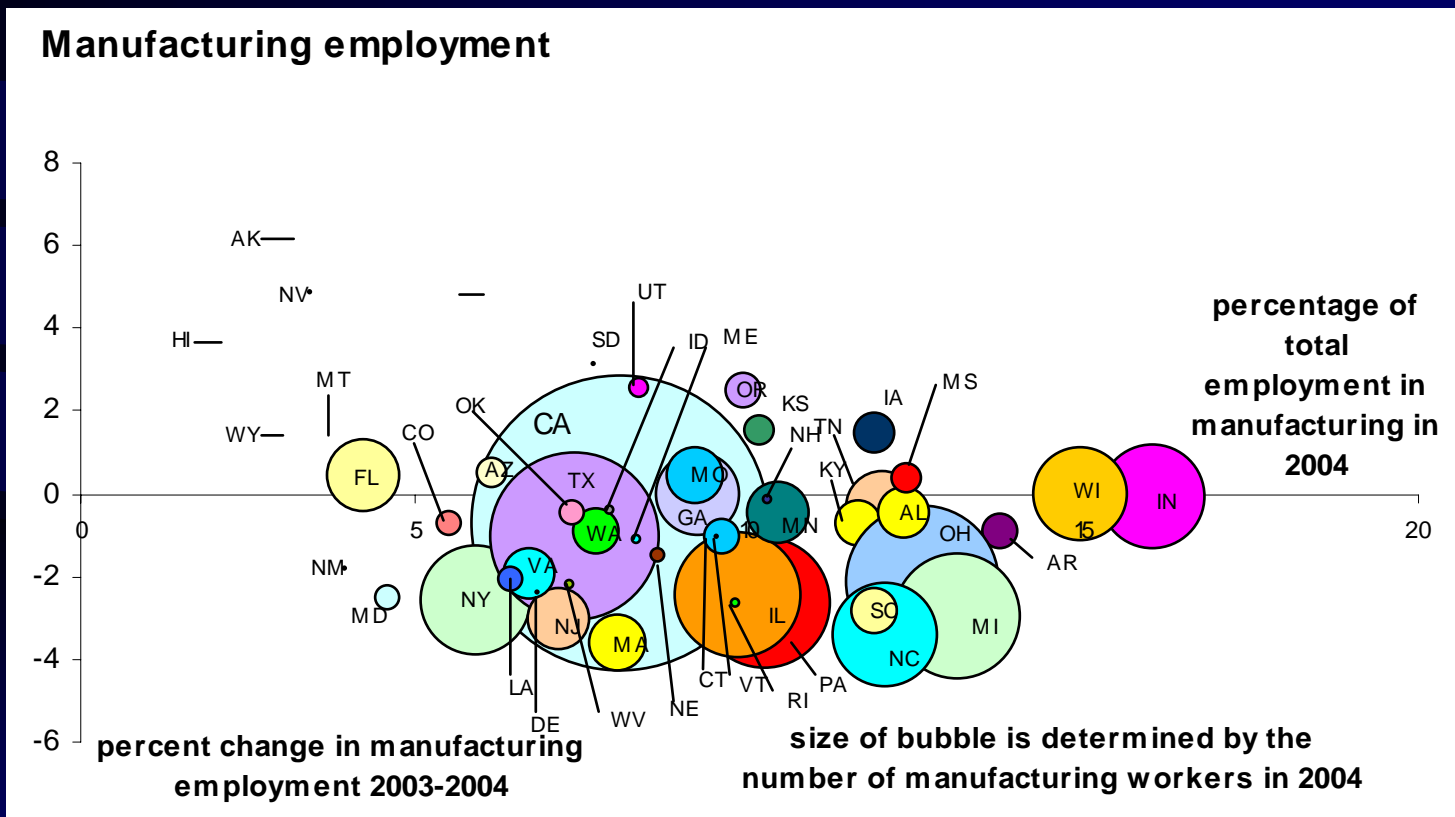
Manufacturing workers have suffered steep employment declines over the past several years



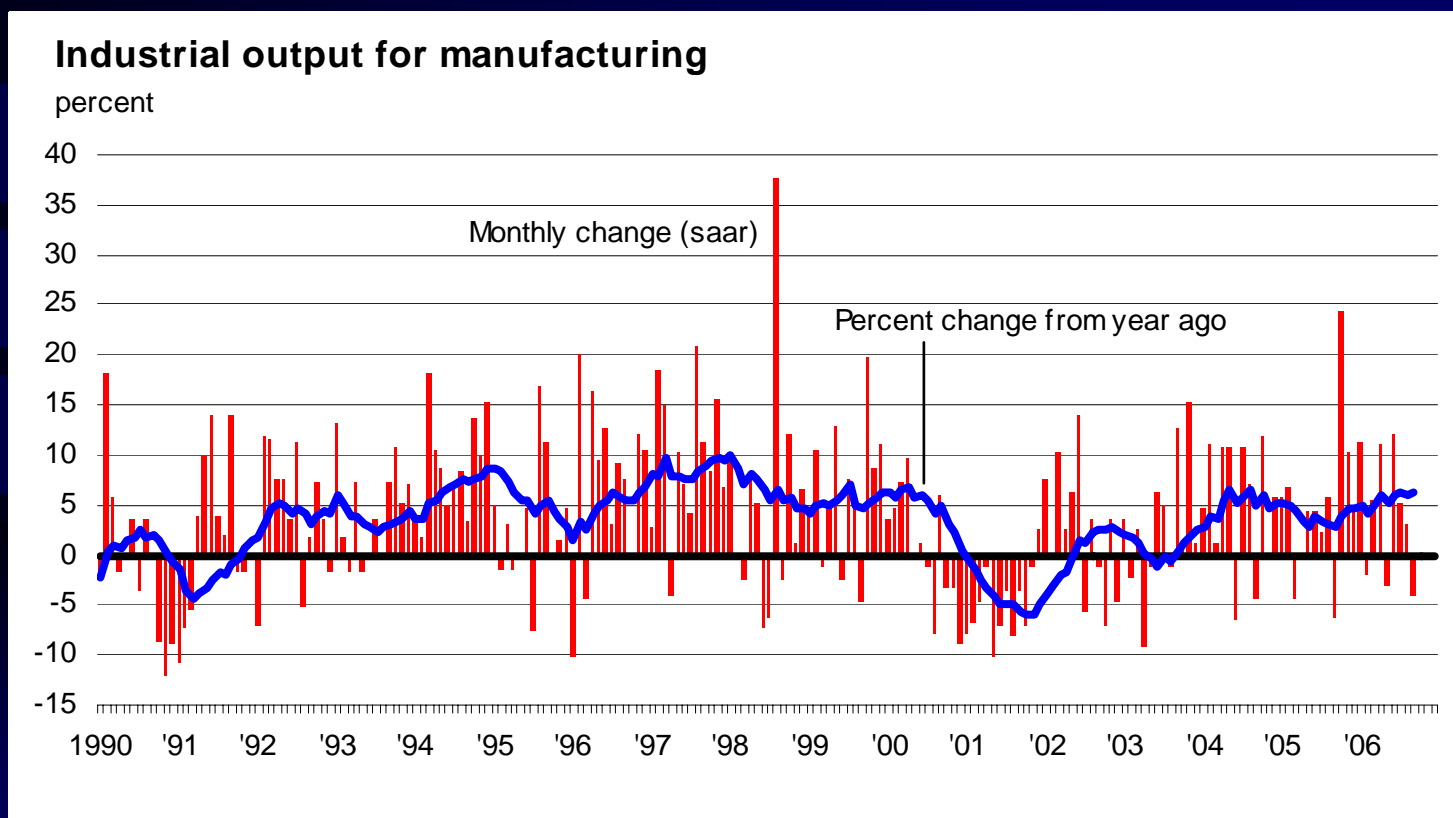
**When changes in nonfarm employment are considered,
the most recent manufacturing employment downturn
is not unprecedented**



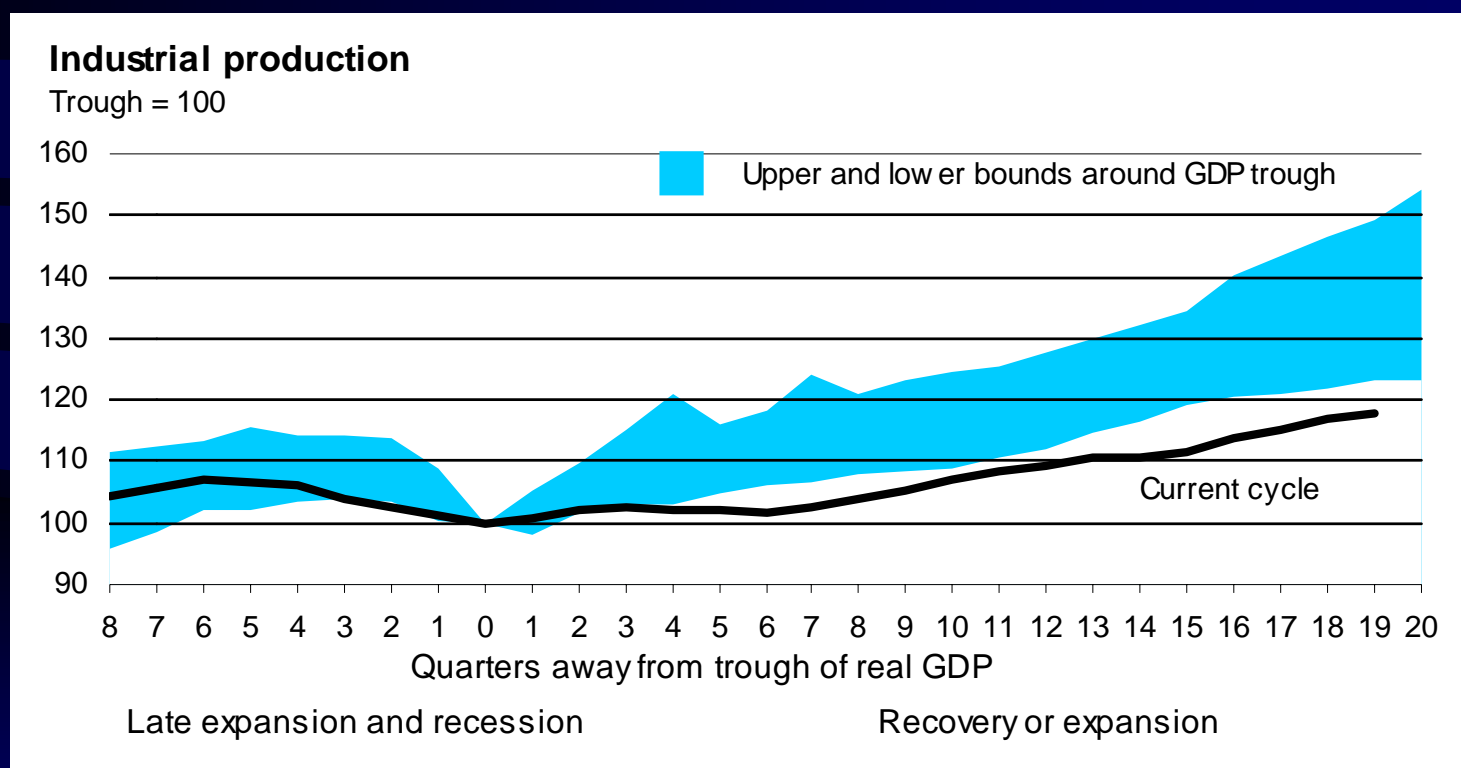
Manufacturing job losses are geographically wide-spread and do not seem to be related to concentration of manufacturing employment



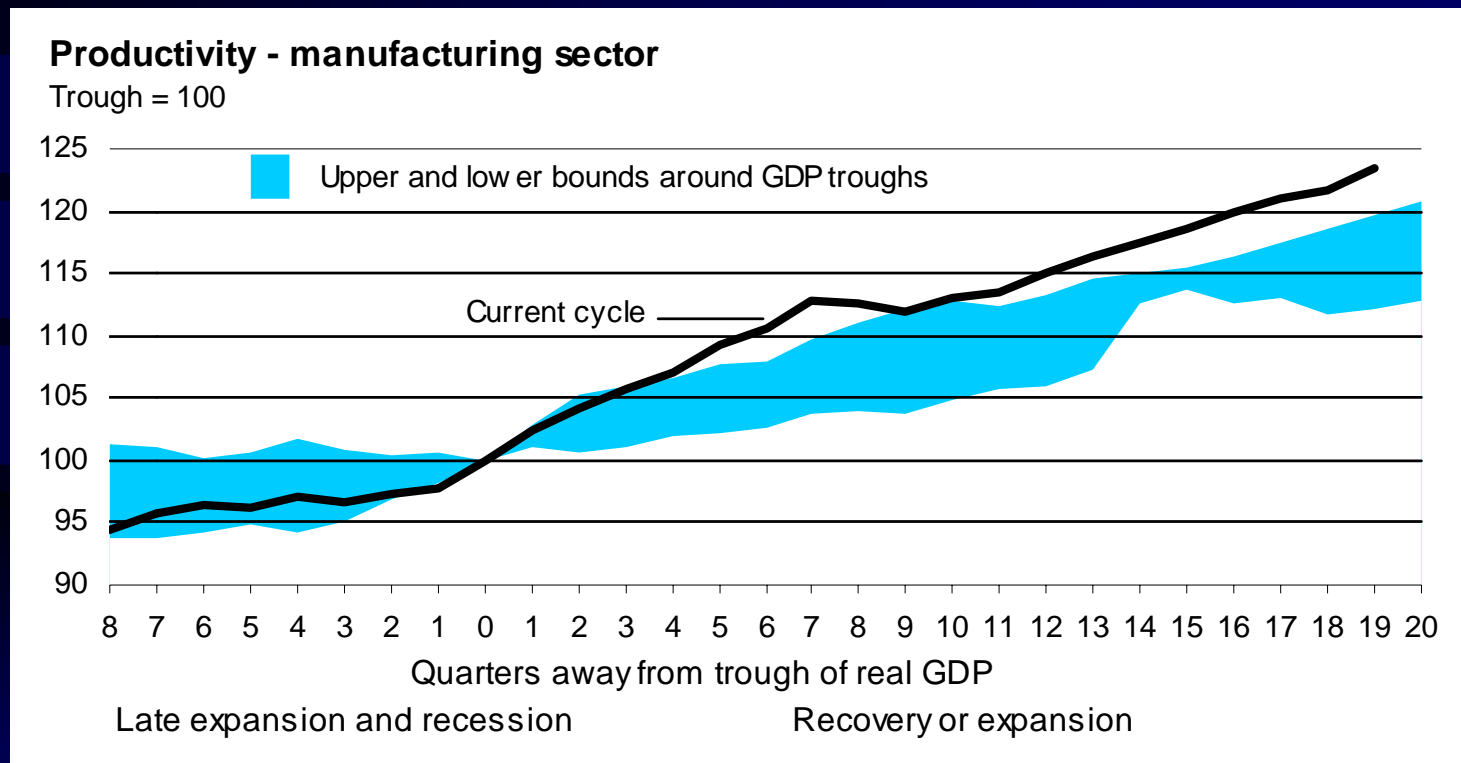
Manufacturing output has been rising since the fall of 2003



Manufacturing output has expanded at a slower pace than previous cycles



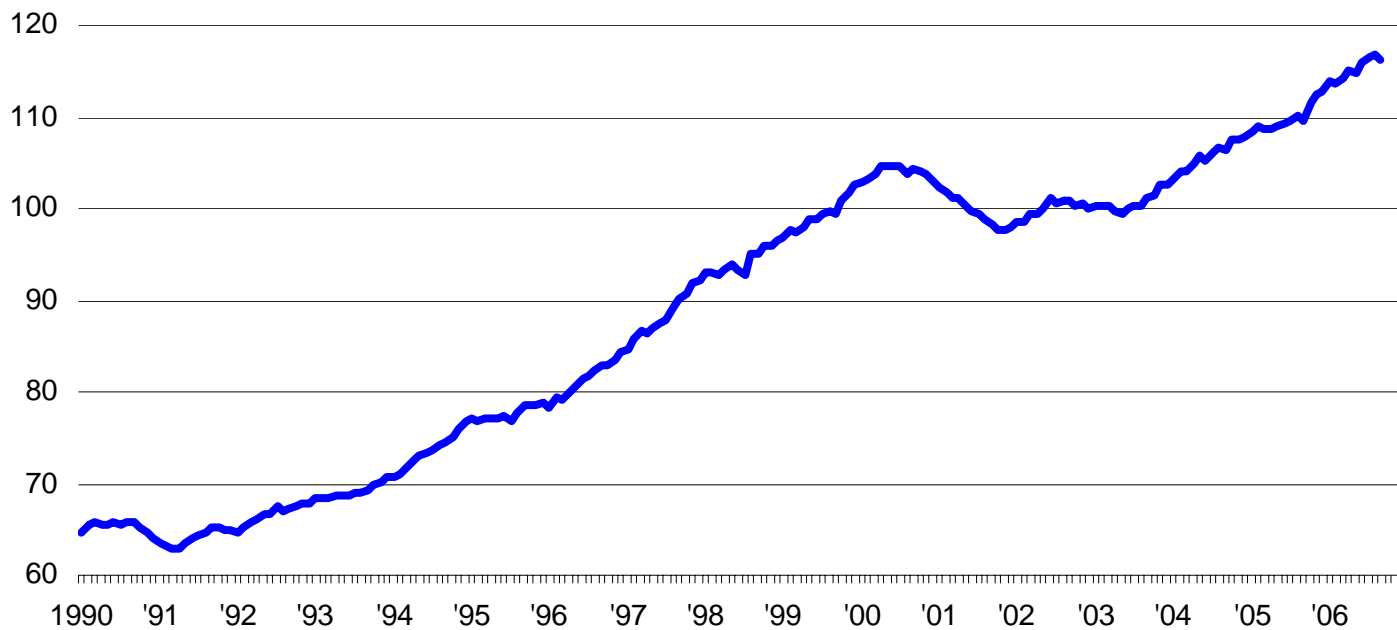
**However, productivity within the manufacturing sector
has grown at a faster rate
than during any previous expansion**



Manufacturing output in the United States has never been higher

Industrial production - manufacturing

Index 2002=100



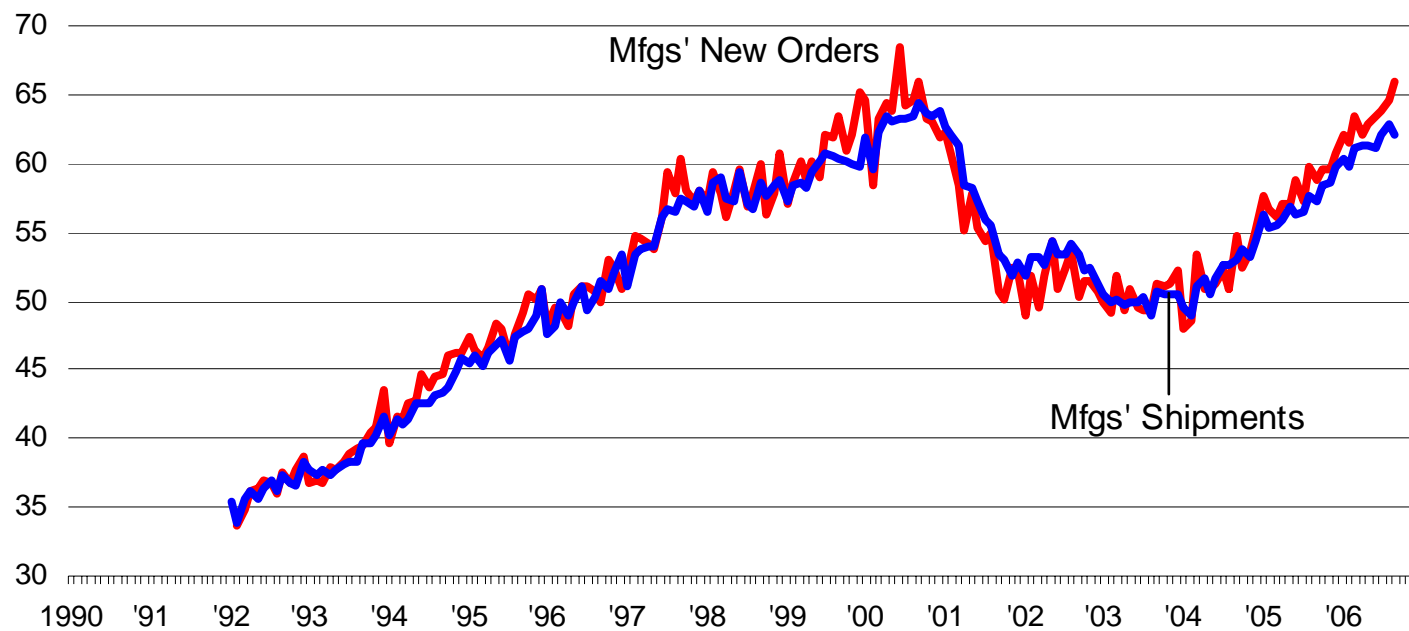
Manufacturing capacity utilization has been improving since June 2003



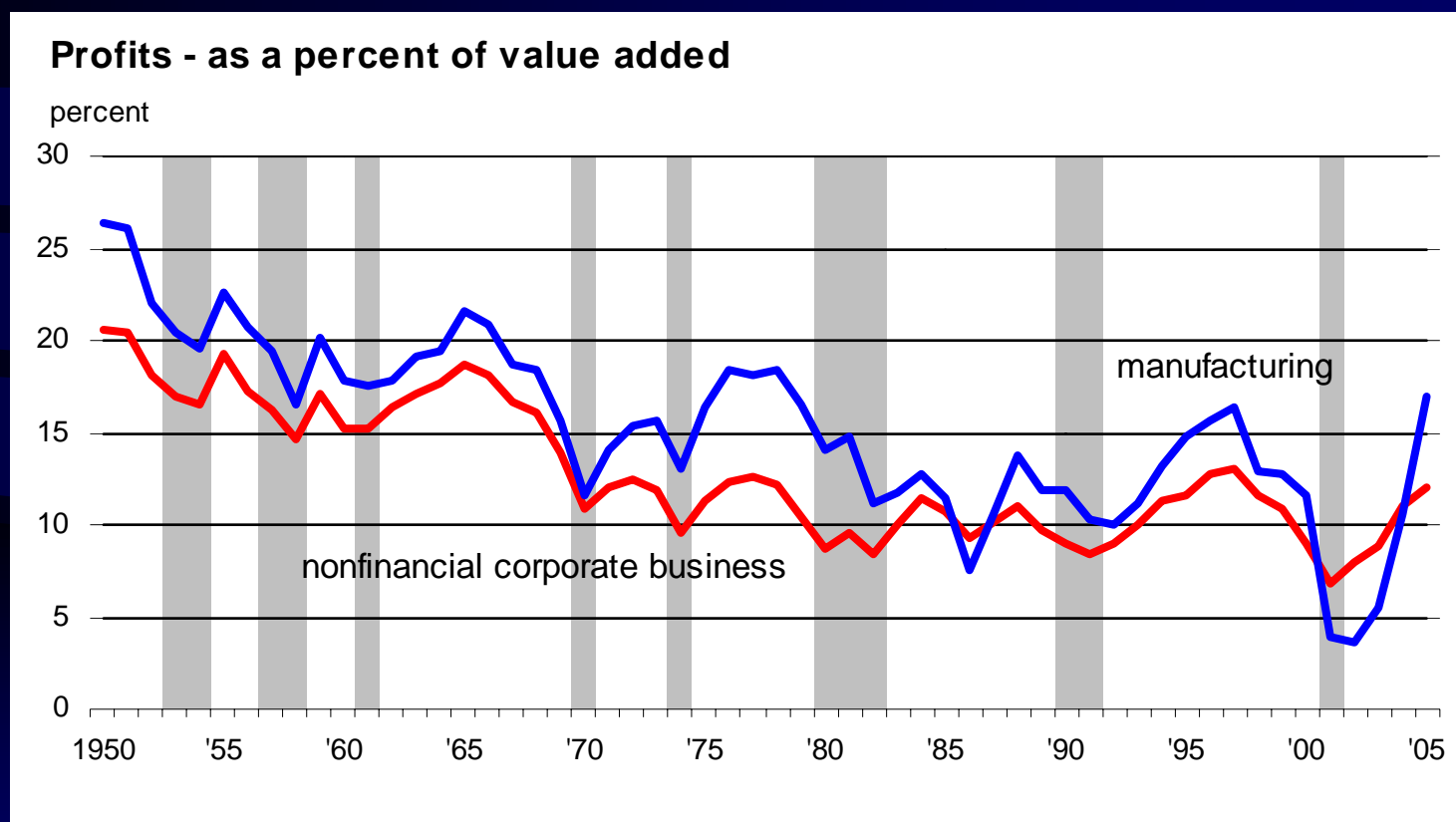
New orders and shipments for capital goods have been doing very well

Nondefense capital goods, excluding aircraft and parts

Billions of dollars (SA)



While more cyclical, profits in manufacturing have out-performed returns in nonfinancial corporate businesses



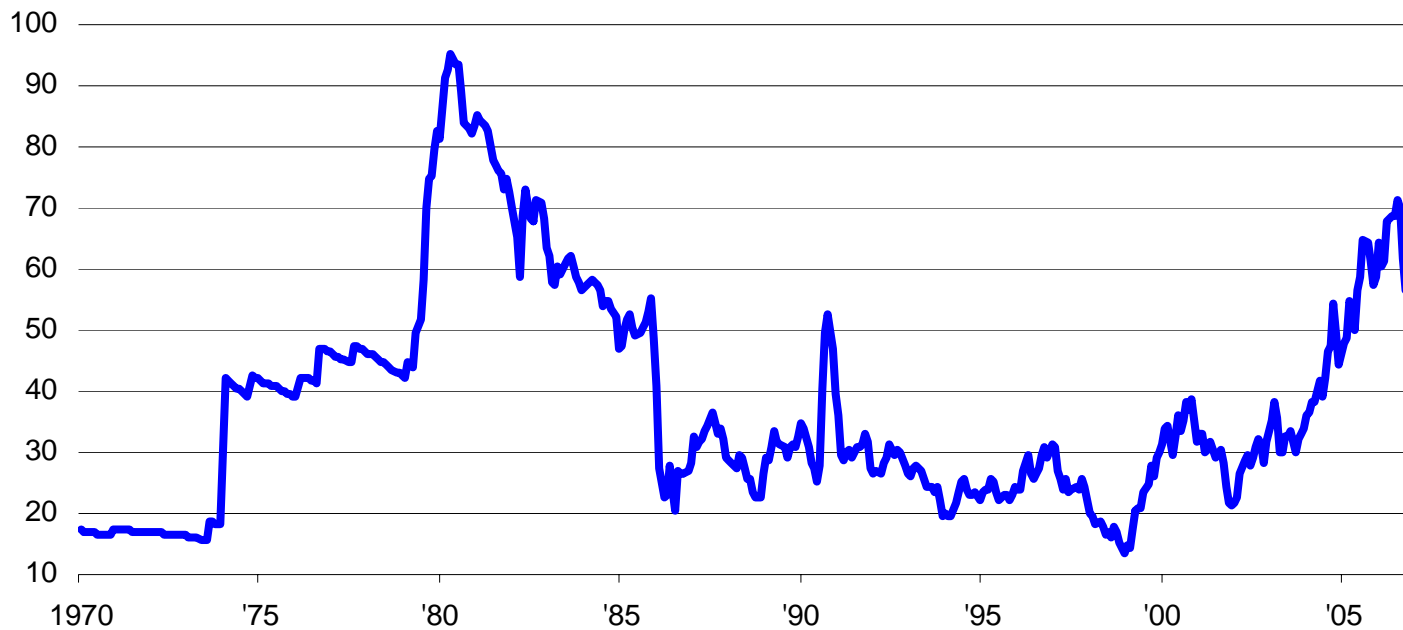
Industry performance



Real oil prices are well above levels of the past twenty years

Real West Texas Intermediate oil price

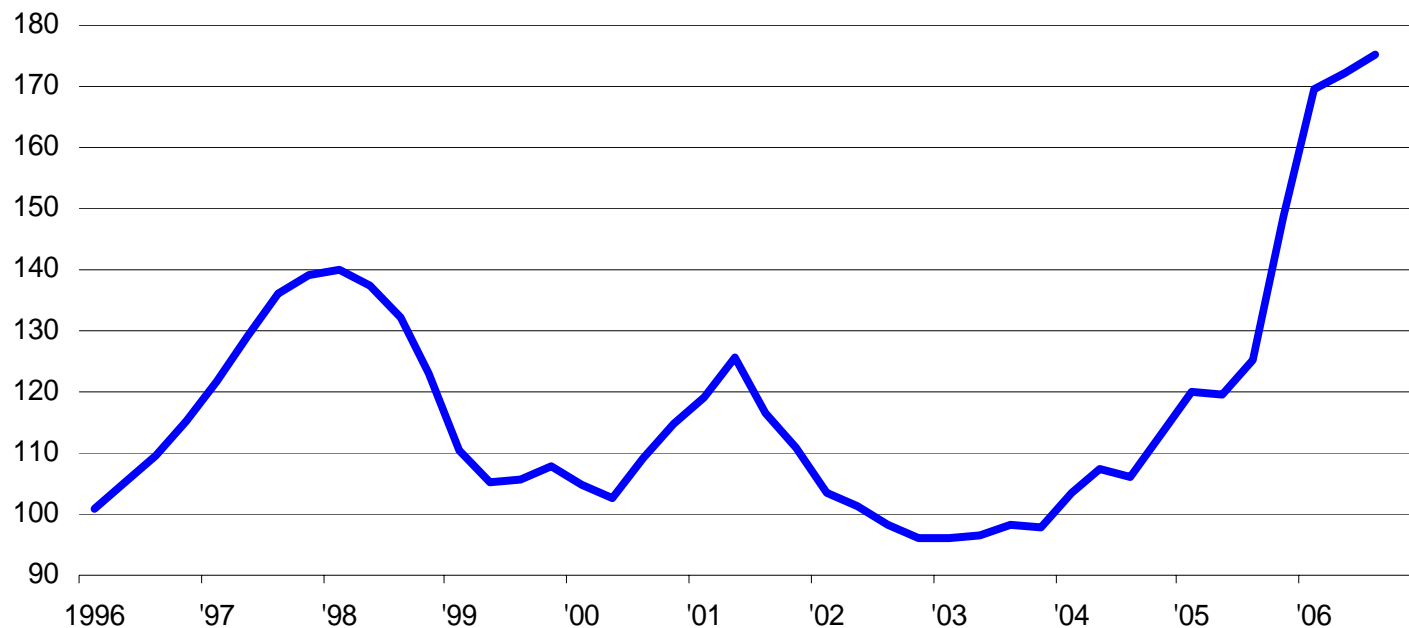
real dollars per barrel (2005 dollars)



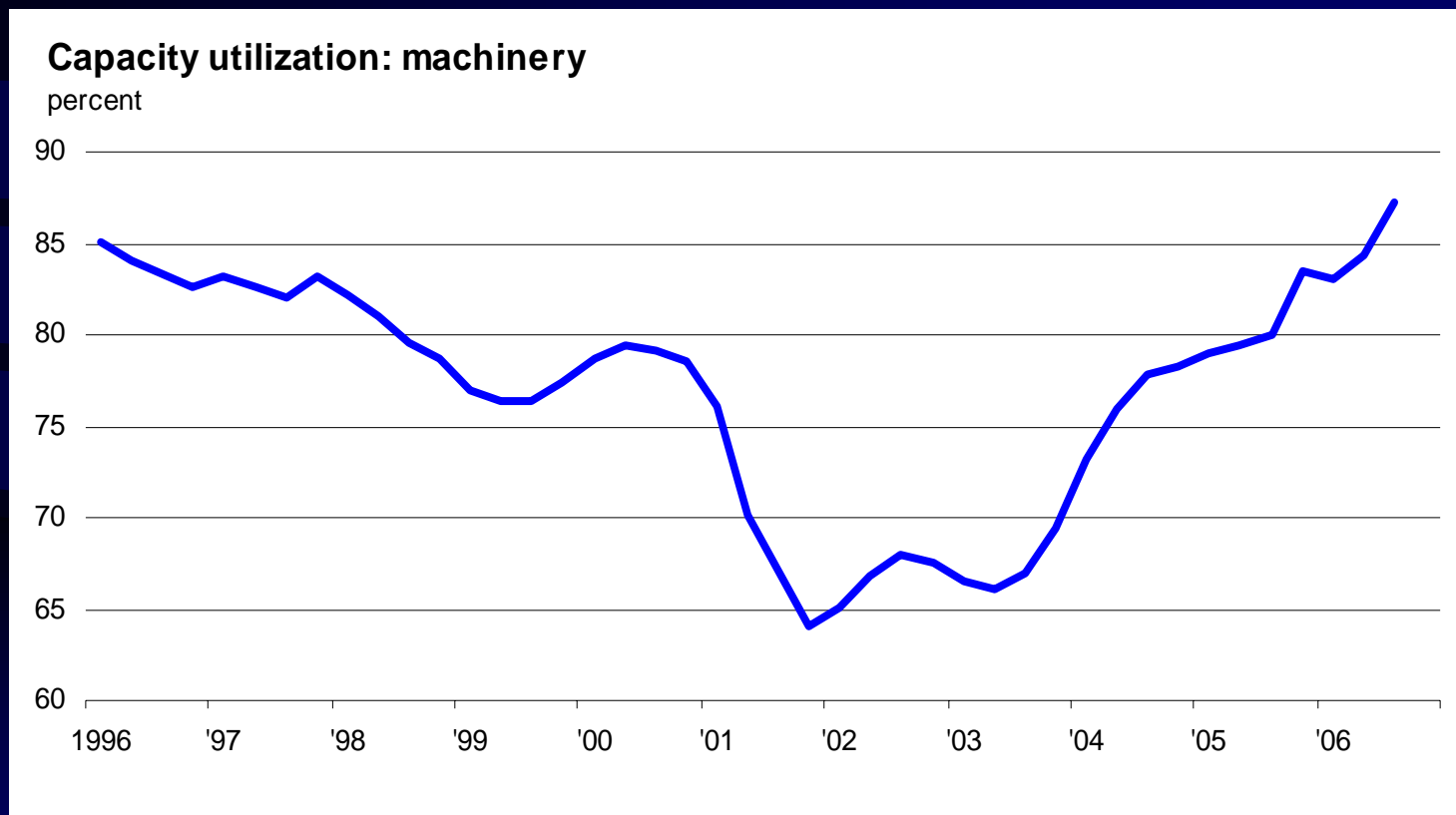
**This has translated into a 75% increase in
mining and oil and gas field machinery output
over the past three years**

Industrial output for mining and oil and gas field machinery

Index: 2002=100



Capacity utilization for the machinery sector rose to the highest rate in over twenty-five years



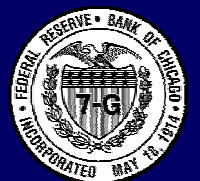
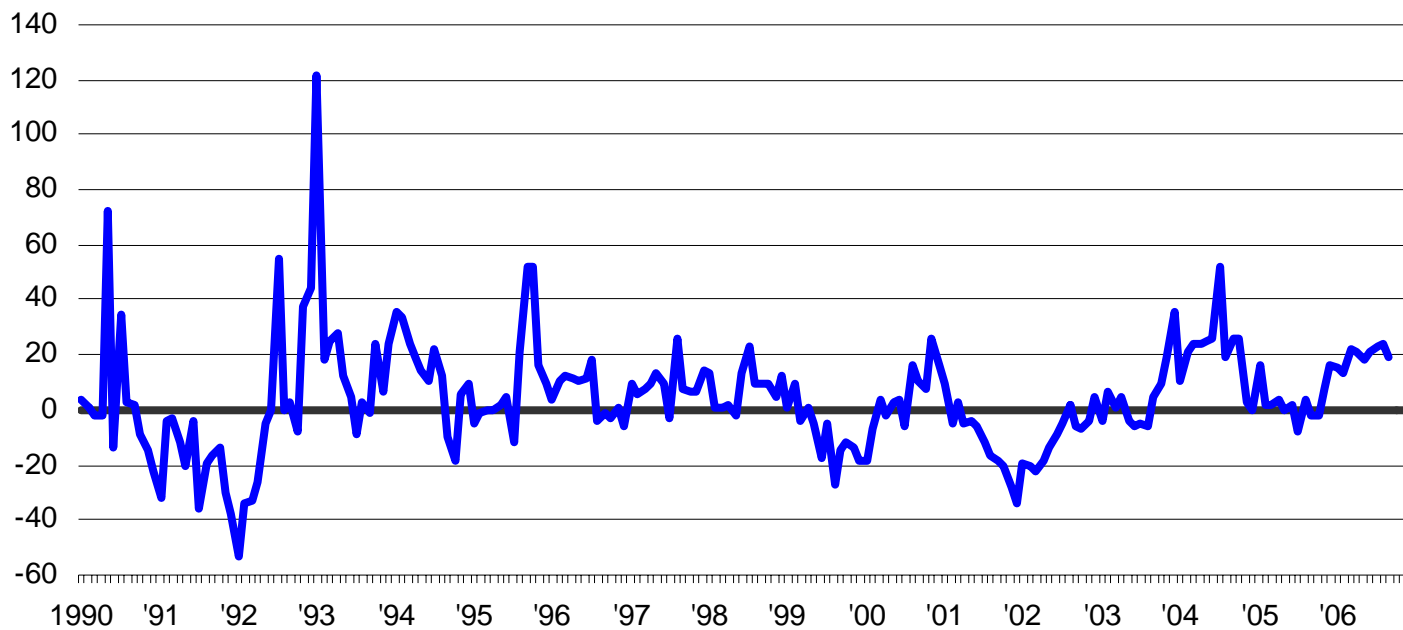
The Caterpillar 797B costs over \$4,000,000



Construction equipment production has improved markedly

Industrial output for construction equipment

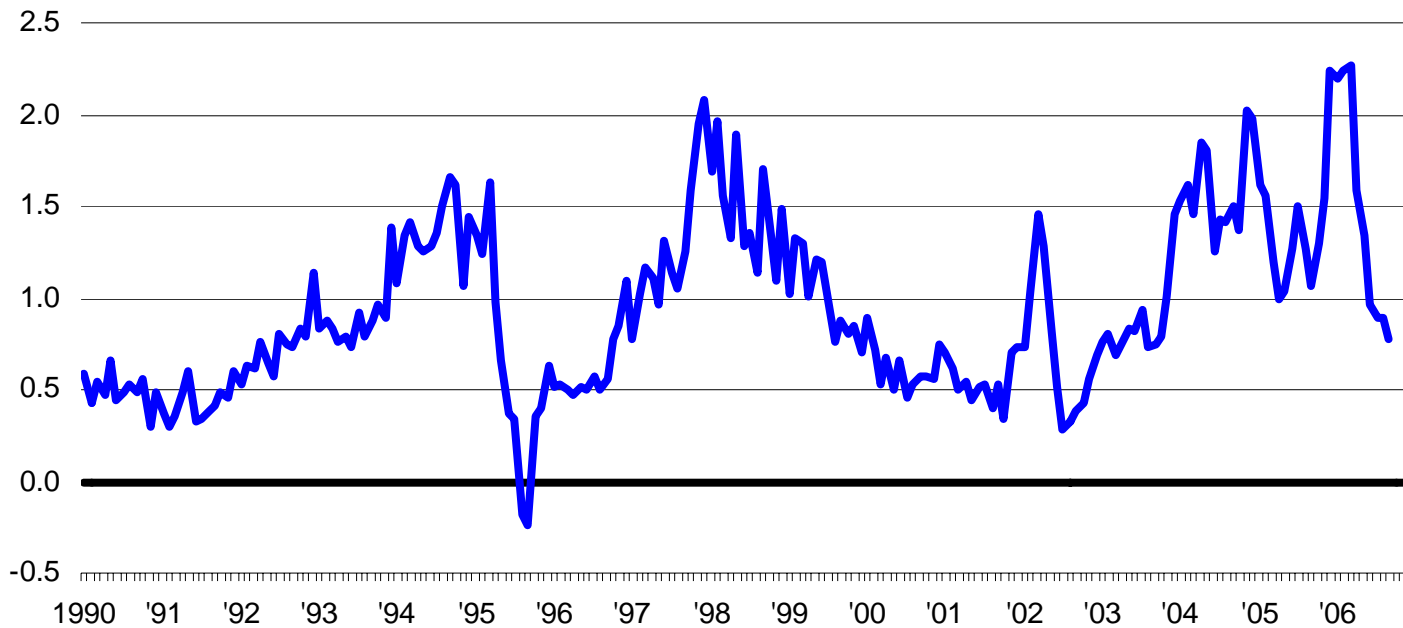
percent change from year ago



Heavy-duty truck order books for 2006 are full, in anticipation of EPA regulatory changes that will take effect on January 1, 2007

Net orders per day - Heavy-duty trucks

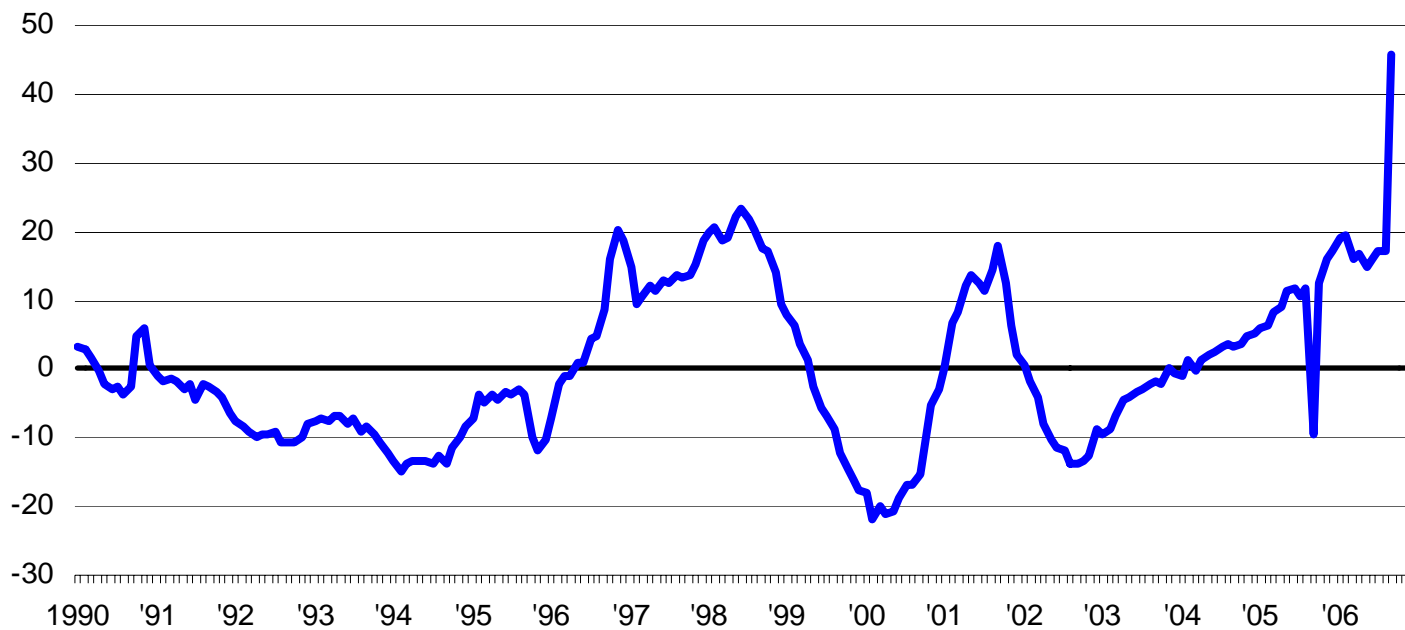
thousands of units



Aerospace production remains robust

Industrial output for aerospace products and parts

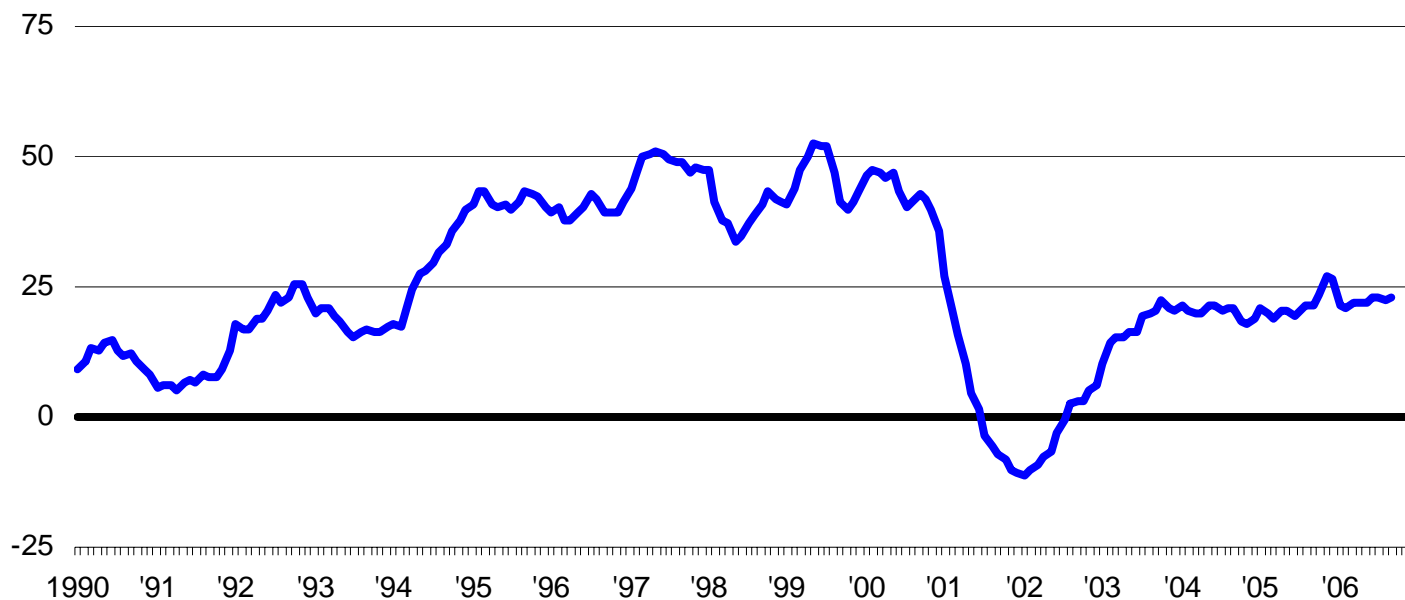
percent change from year ago



The high-tech sector's output growth has been at a solid rate

Industrial output for computers, communications equipment, and semiconductors

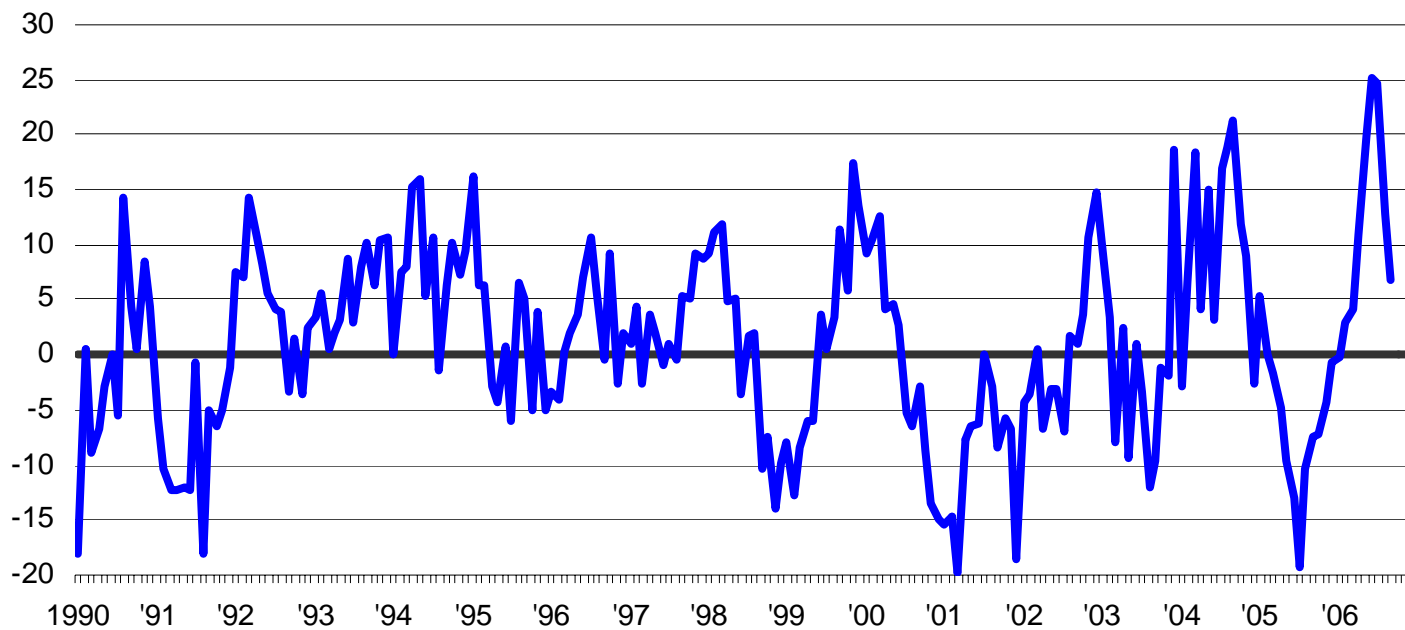
Percent change from year ago



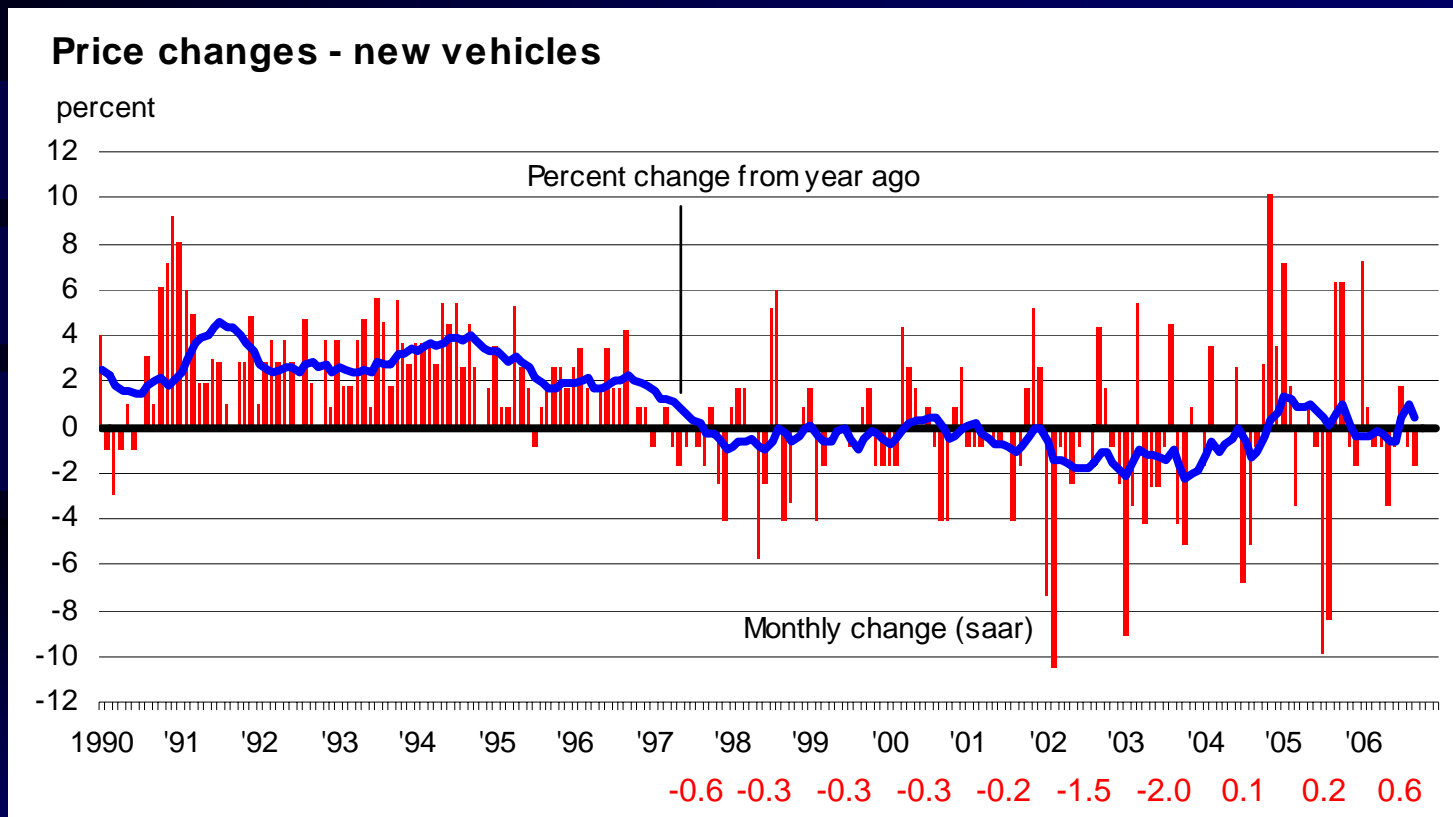
Steel industry growth has been slowing from extremely high rates

Industrial output for iron and steel

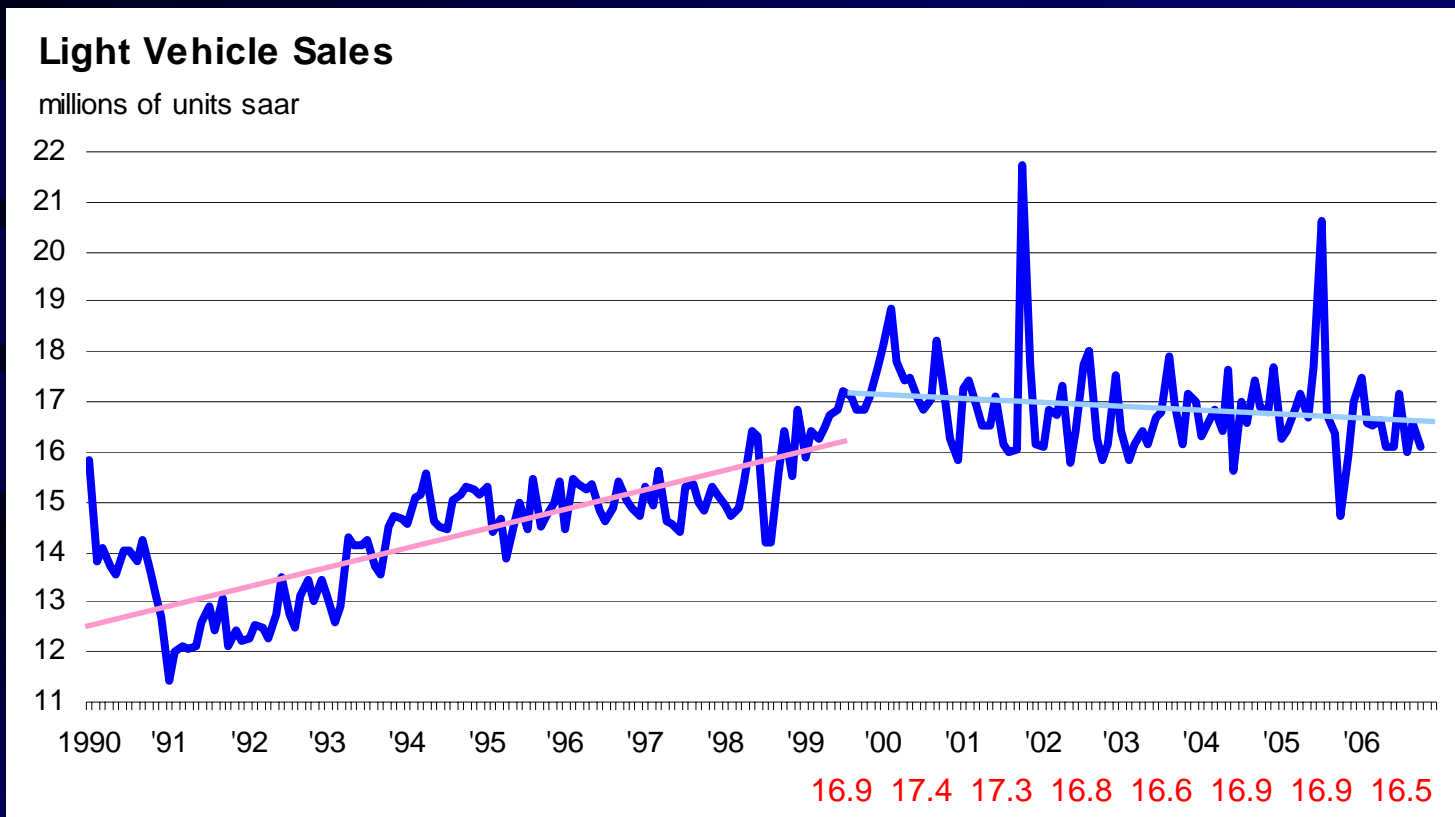
percent change from year ago



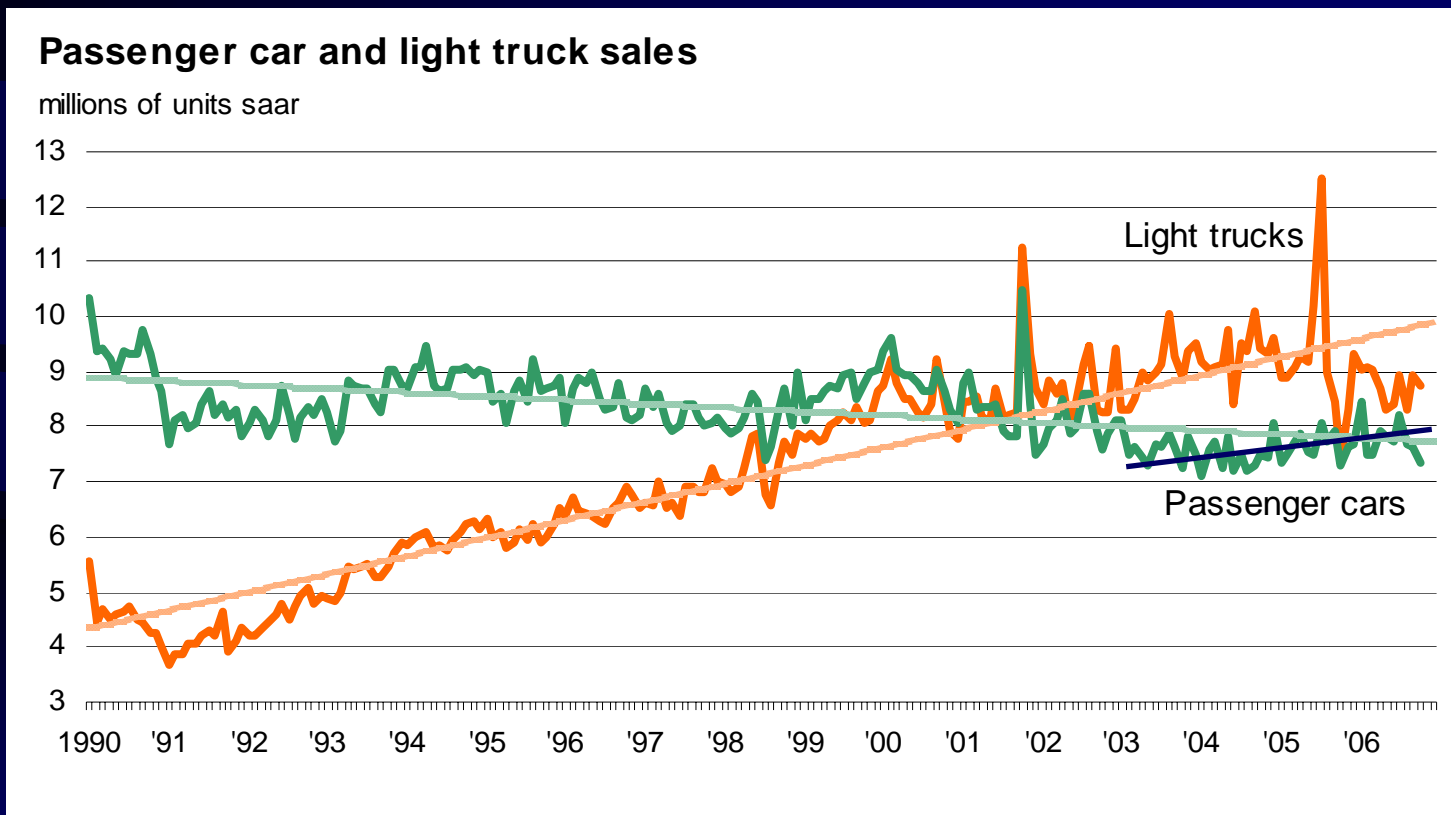
New vehicle prices have been under pressure since 1997



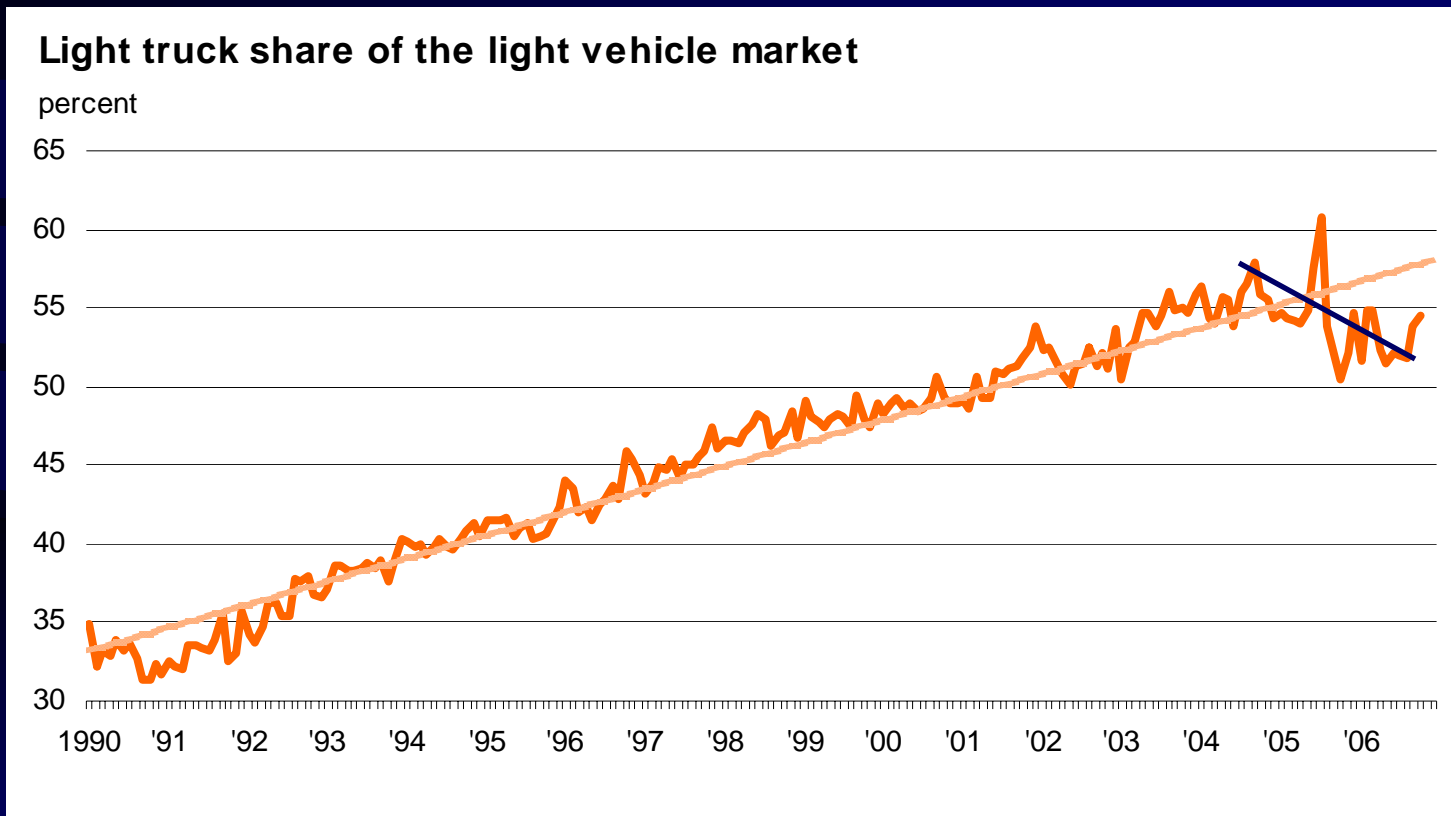
Light vehicle sales have shown no growth for the past eight years



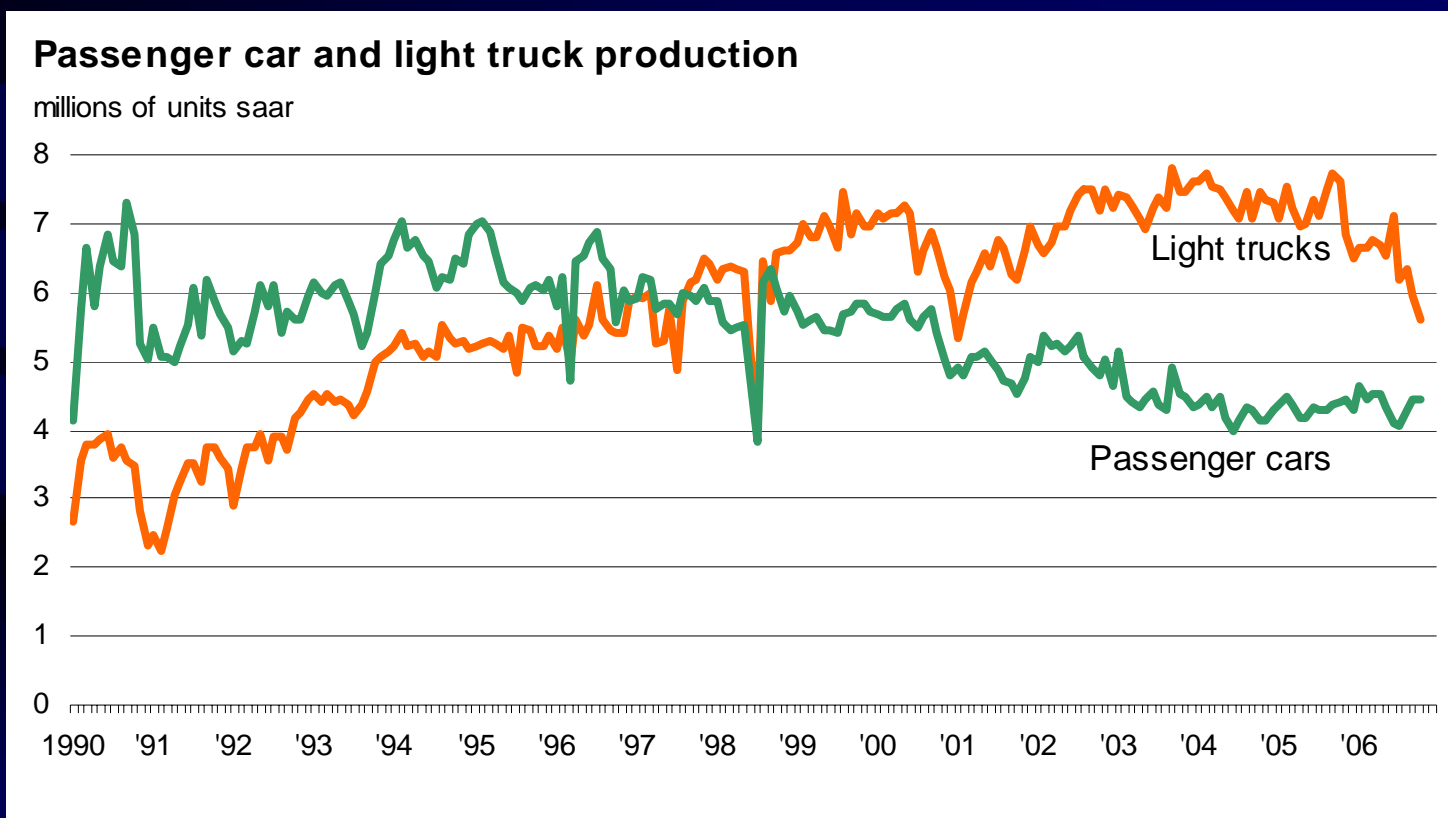
Passenger car sales have been moving higher



Light truck market share has been falling since August 2004



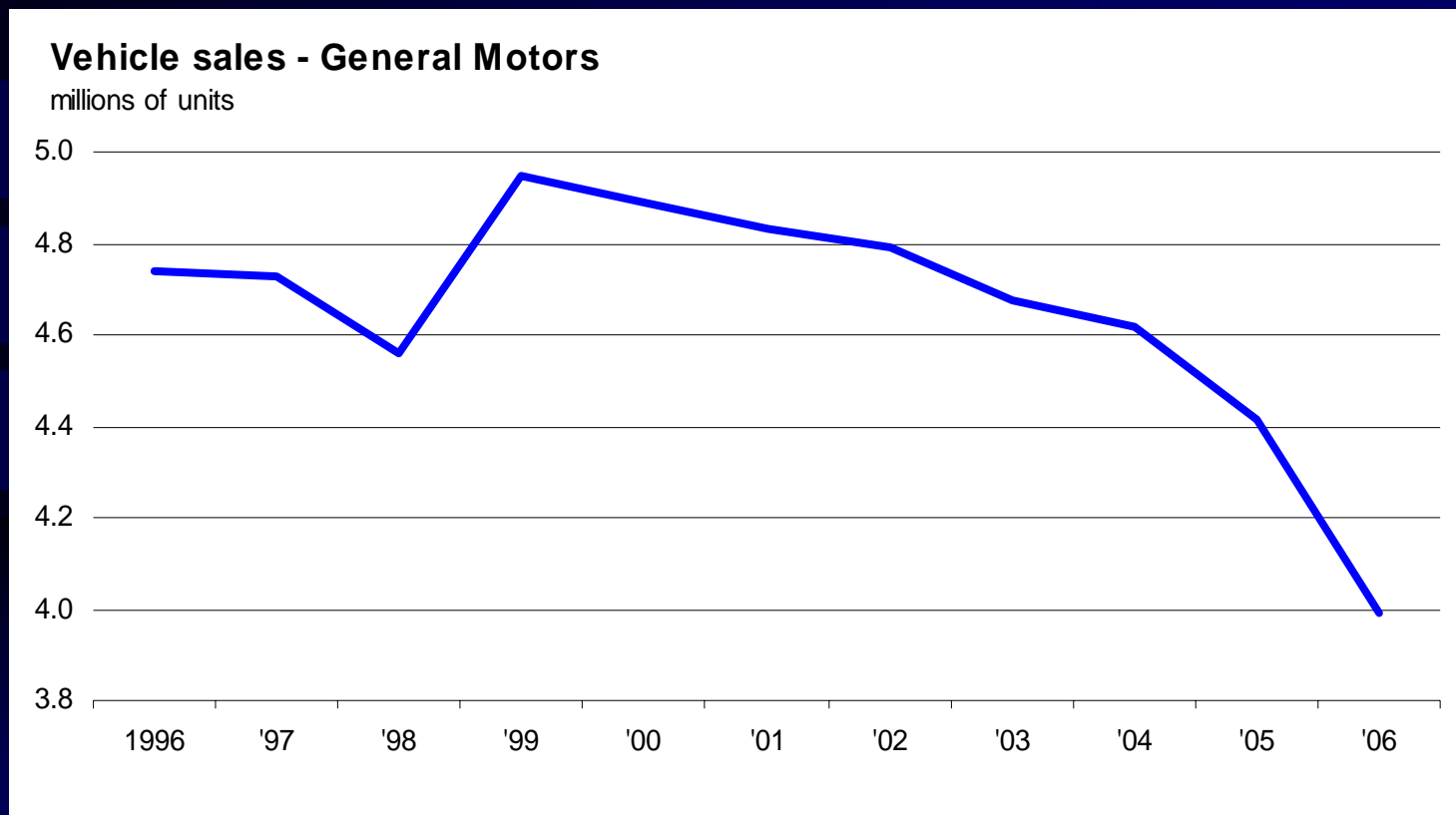
While passenger car production has been relatively stable, light truck production has been falling



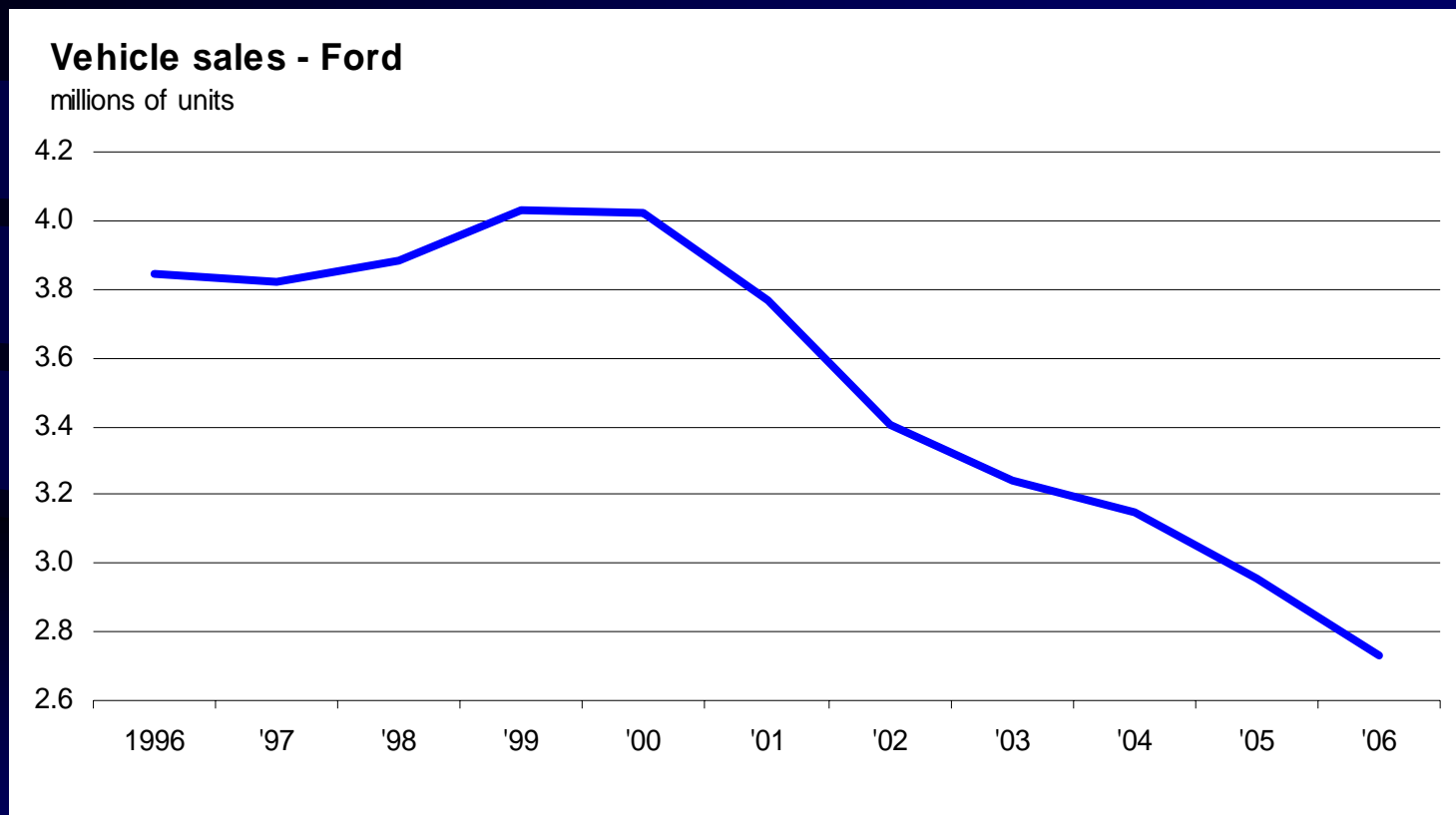
GM and Ford produce some of the largest vehicles



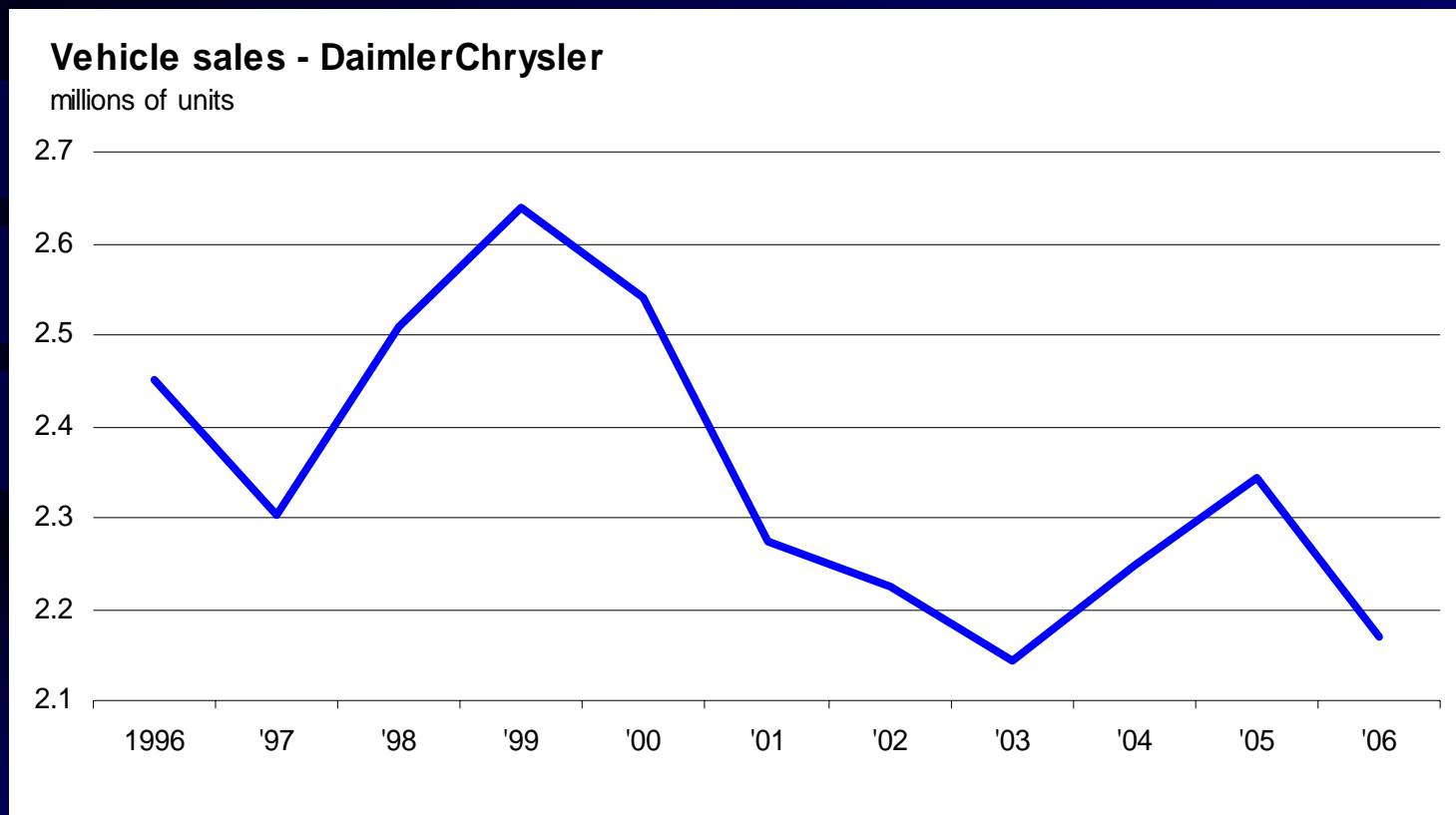
Since 1999, General Motors' sales declined by nearly a million vehicles



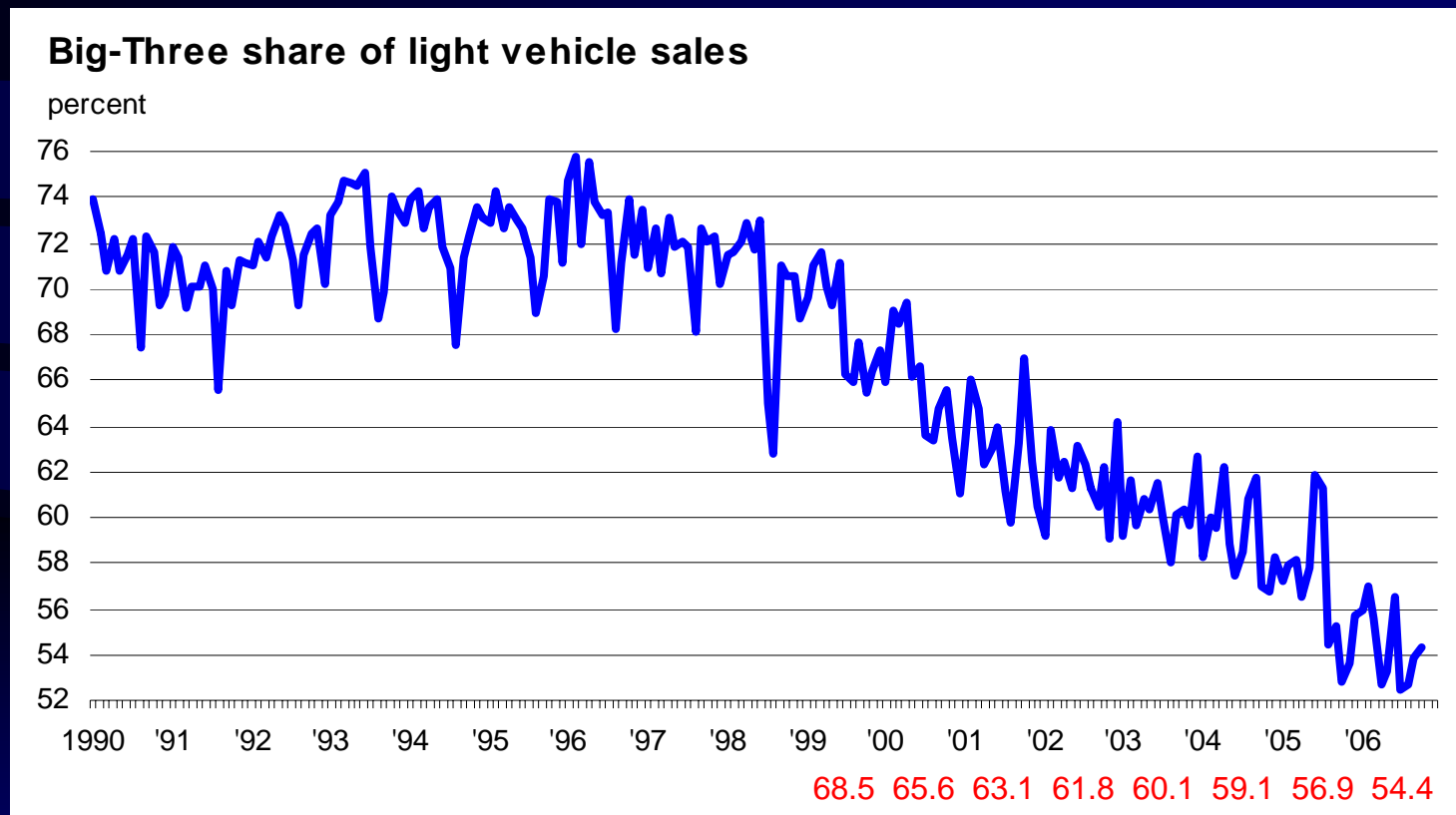
Ford's sales declined by nearly 1.3 million vehicles



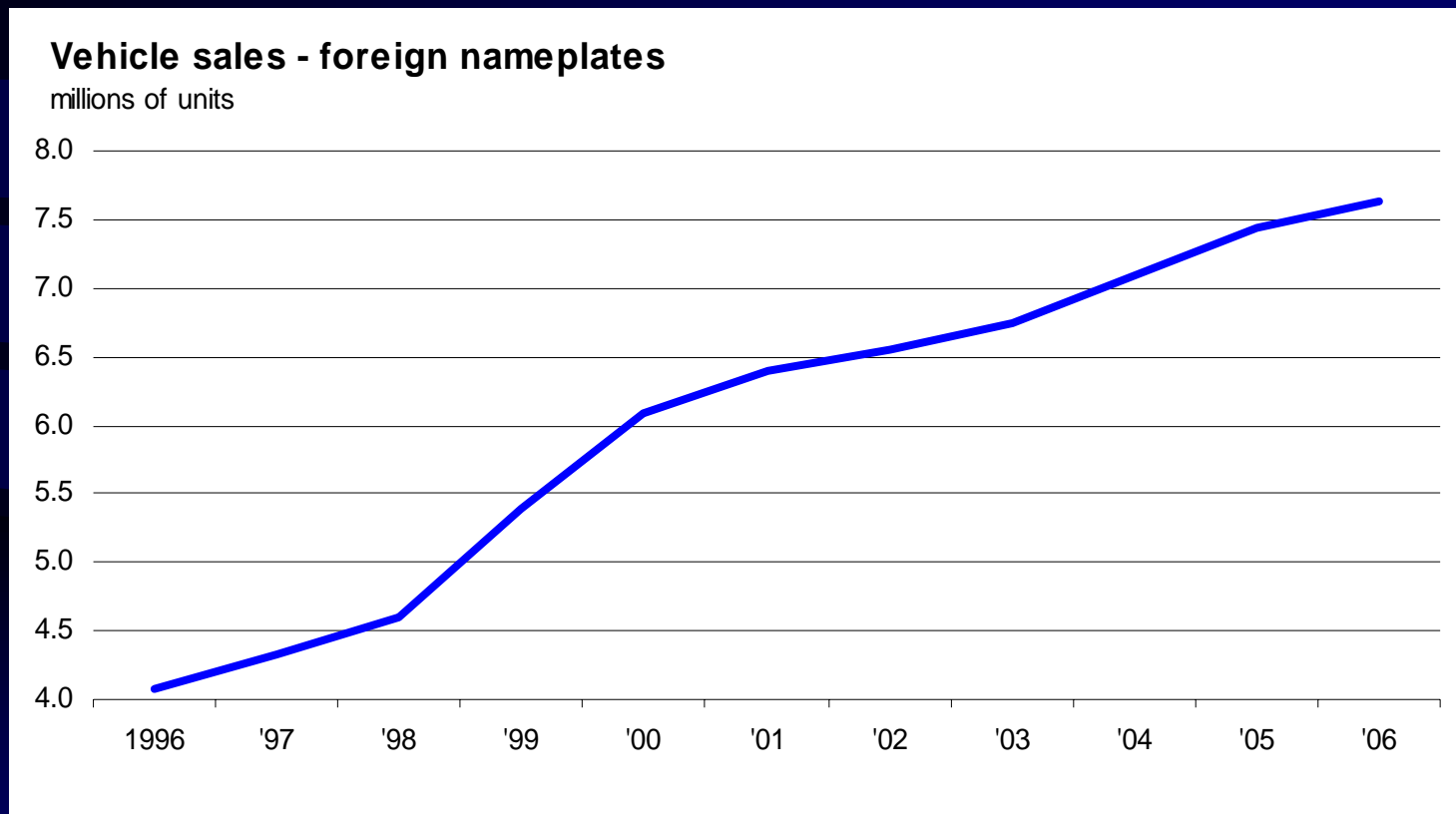
DaimlerChrysler's sales fell by nearly half a million vehicles



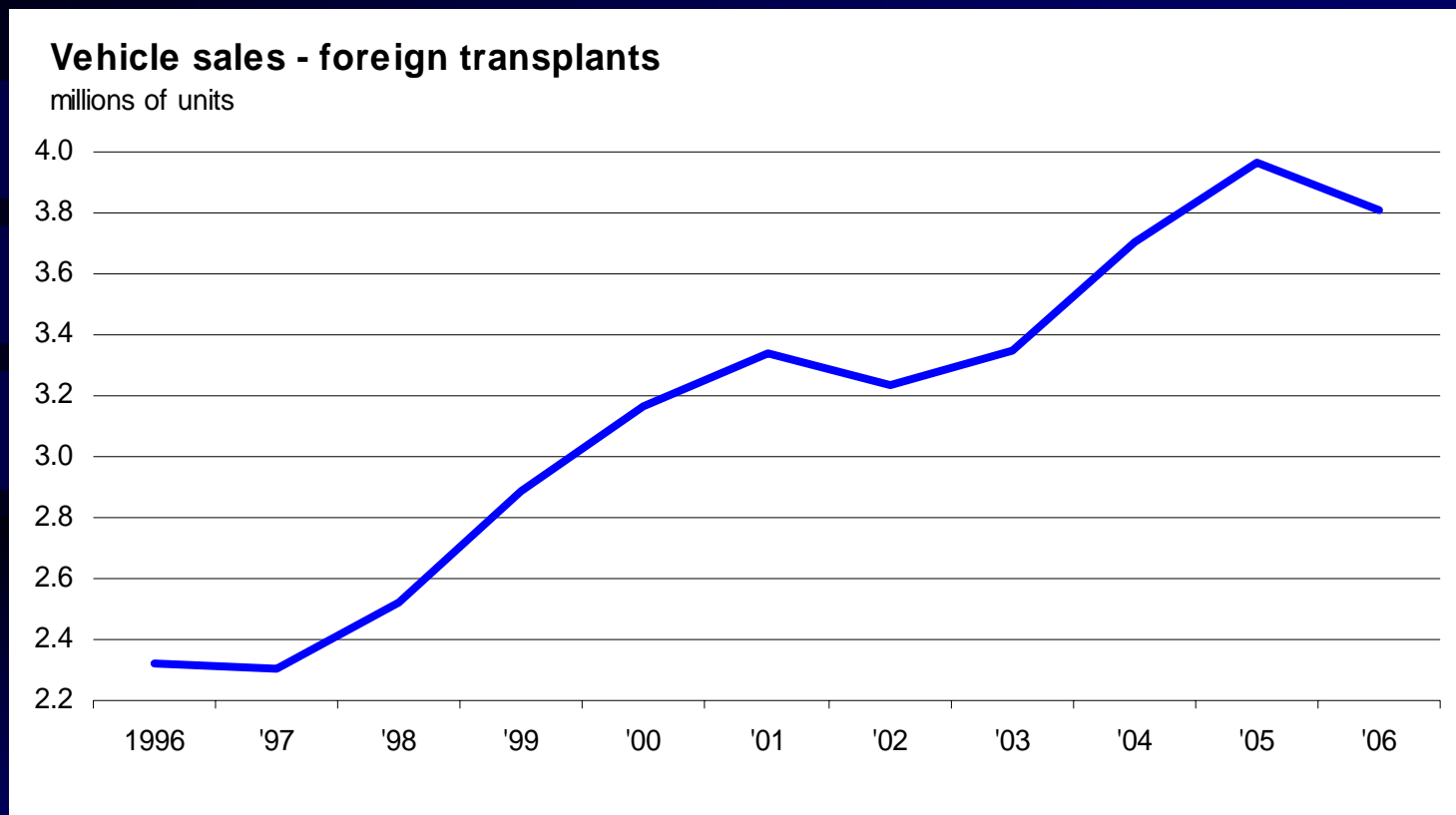
**So with losses approaching 3 million units,
the Big-Three's market share has deteriorated**



**So with sales slipping for the Big-Three,
foreign nameplate models have
risen by over two million units**



**However “new domestic” production
rose by over 900,000 vehicles**



Buy American

2005 Ford Mustang



65% U.S. and Canadian parts

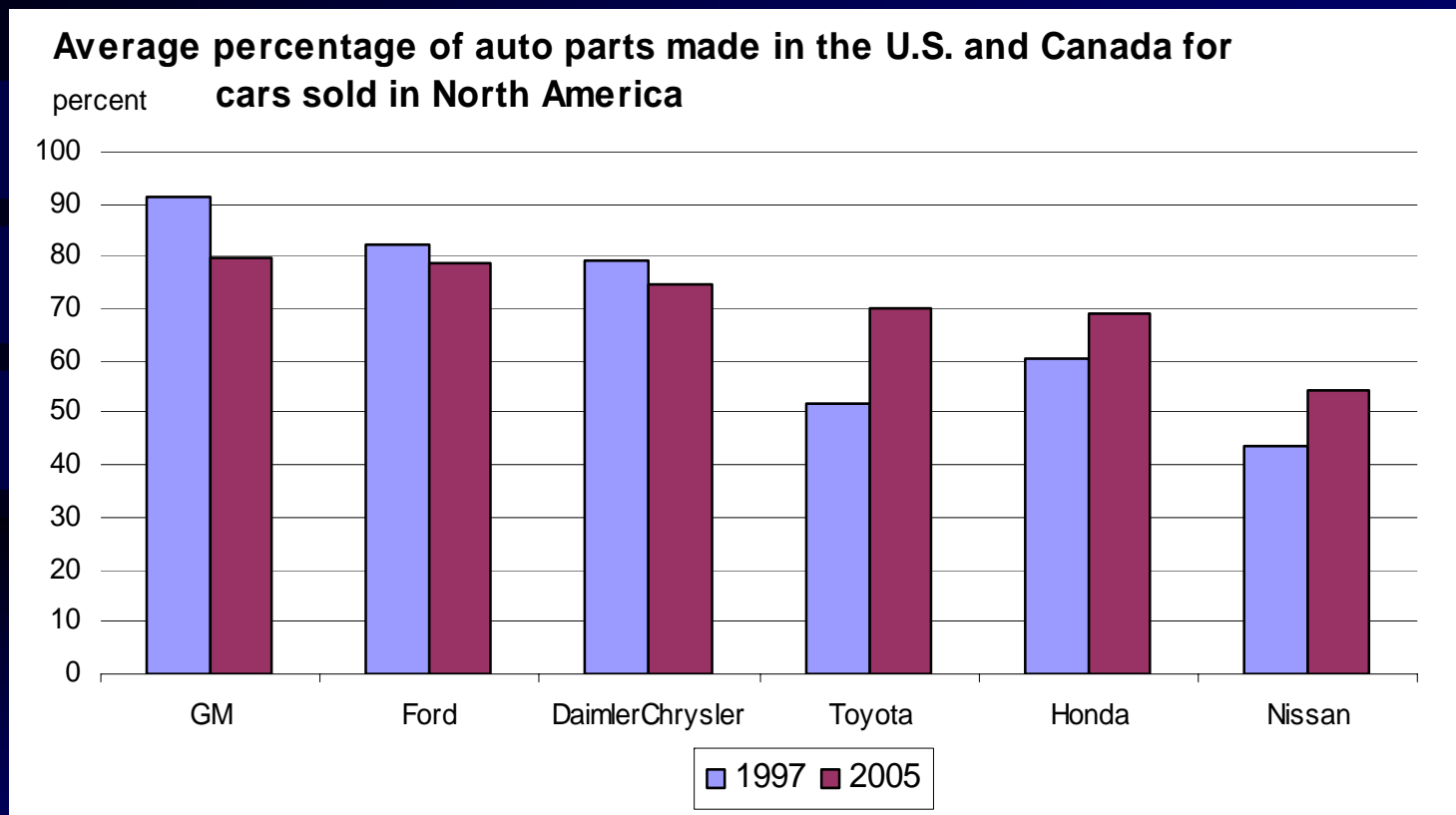
2005 Toyota Sienna



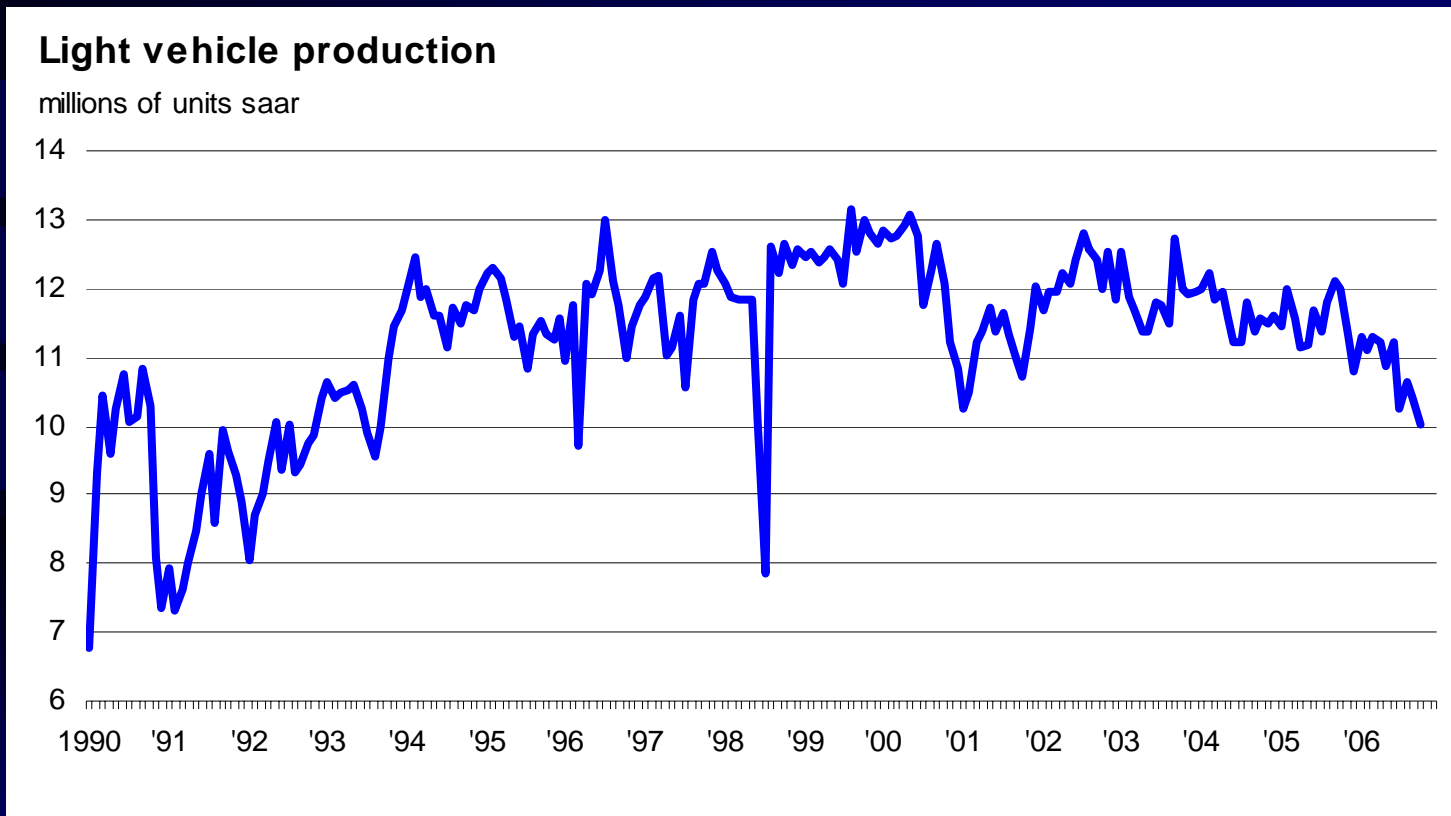
90% U.S. and Canadian parts



Domestic content for the Big Three has been declining, while domestic content for the “new domestics” has been rising



Light vehicle production has been declining at a more moderate pace than focusing on Big-Three losses would suggest

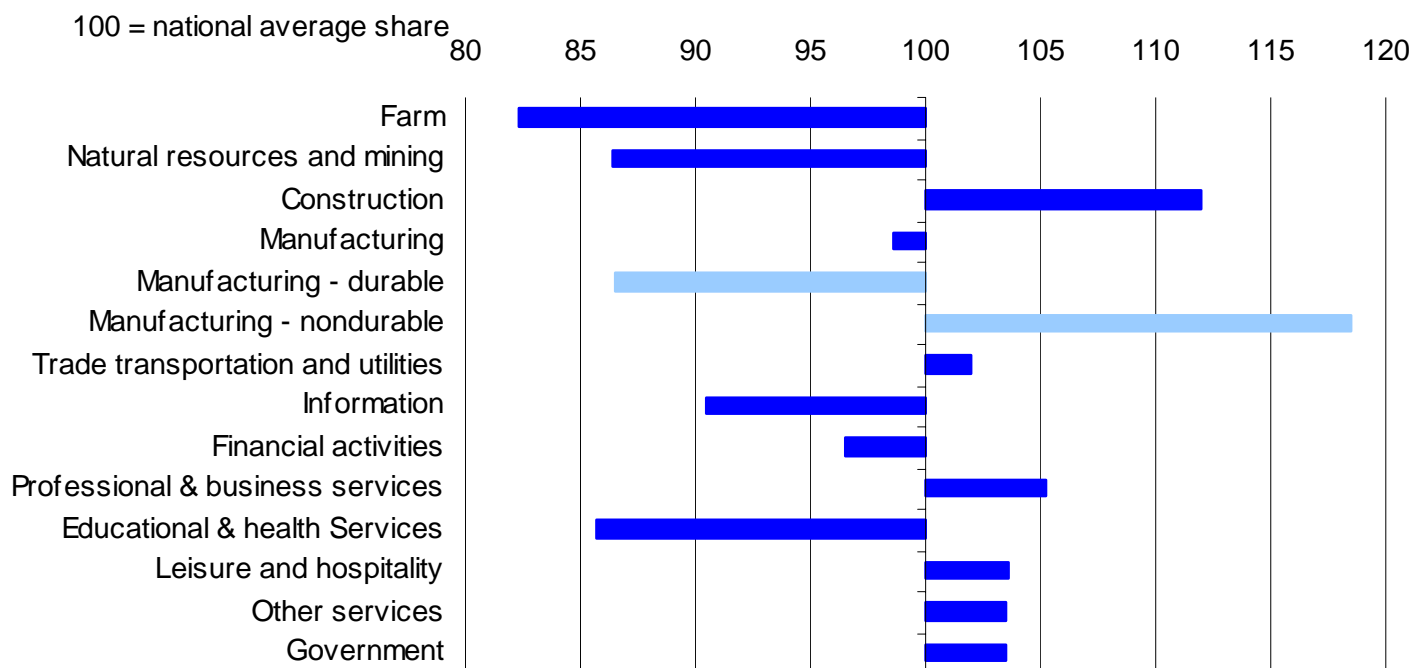


Regional analysis



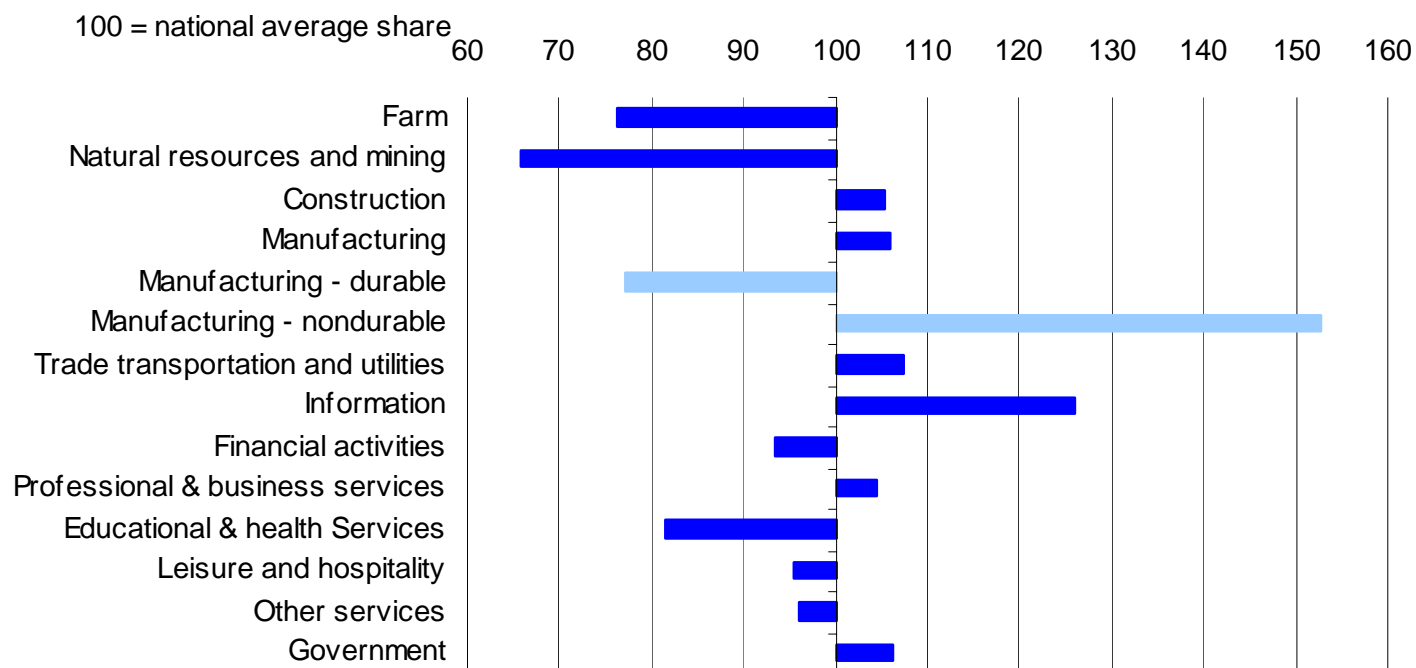
Construction and nondurable manufacturing have the largest employment concentration in the Southeast

Southeast employment distribution (2004)



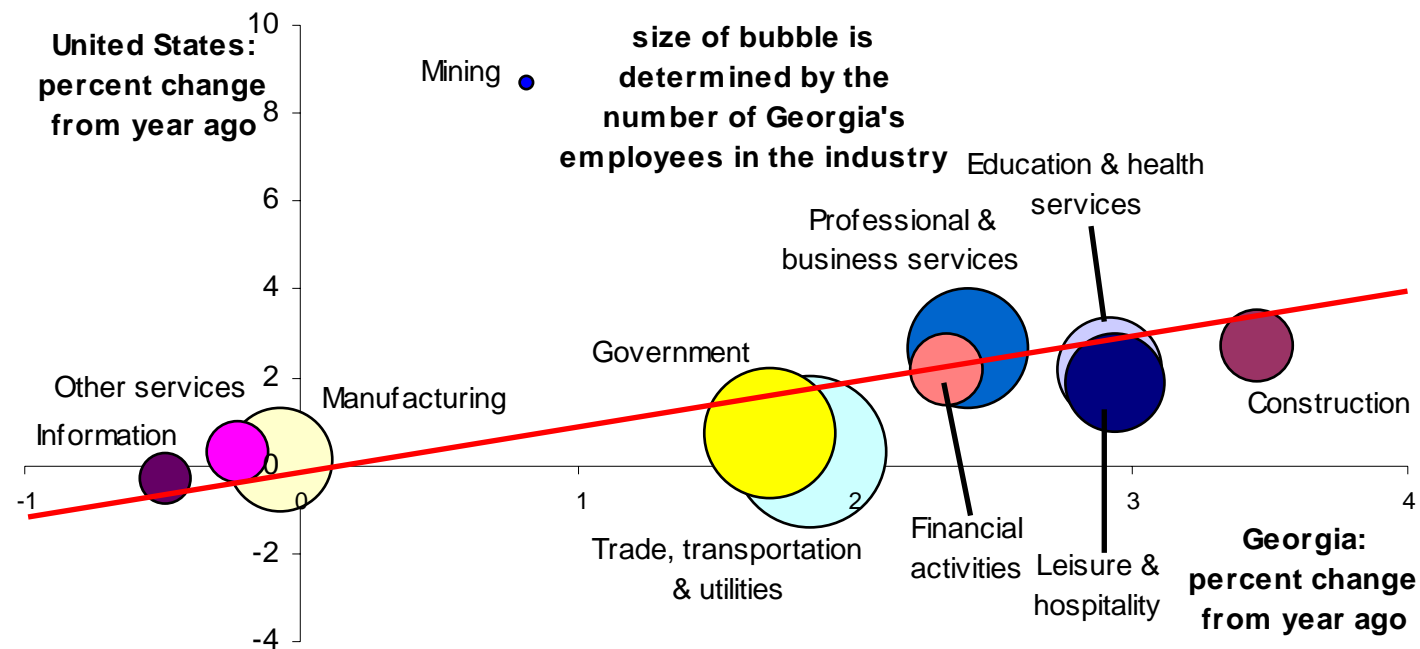
Nondurable manufacturing and information have the largest employment concentration in Georgia

Georgia employment distribution (2004)

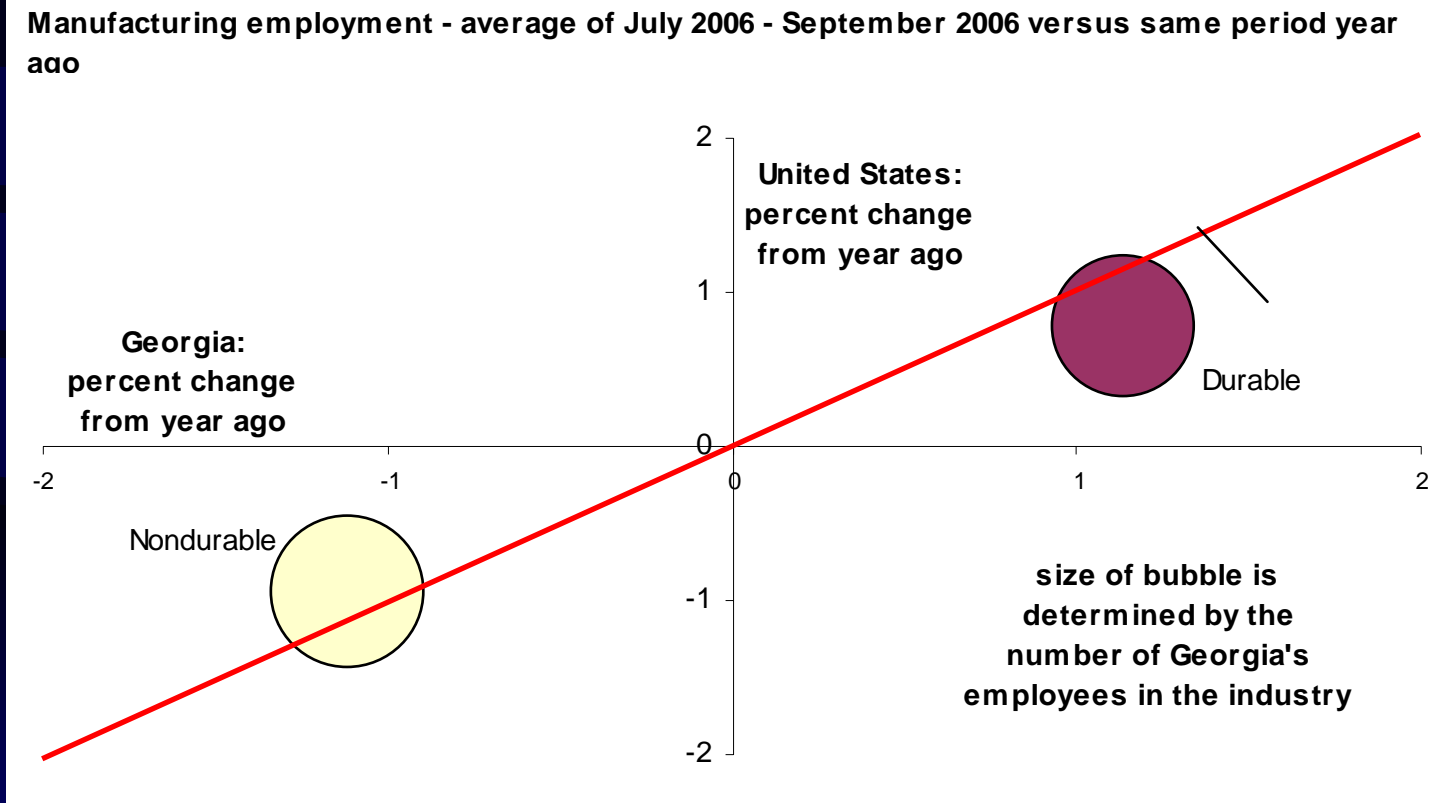


Georgia's employment has been doing relatively better than the nation

Employment - average of July 2006 - September 2006 versus same period year ago



Georgia's manufacturing has been close to the experience of the nation, doing a bit better in durables and a bit worse in nondurable



Summary

- Manufacturing continues to expand at solid rates
- Most industries are doing very well
- The domestic nameplate automobile manufacturers are struggling
- The domestic nameplate supplier base are also deeply affected
- Outside of the Big Three the rest of the domestic automobile producers are doing well



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