

The Disappearance of Manufacturing?

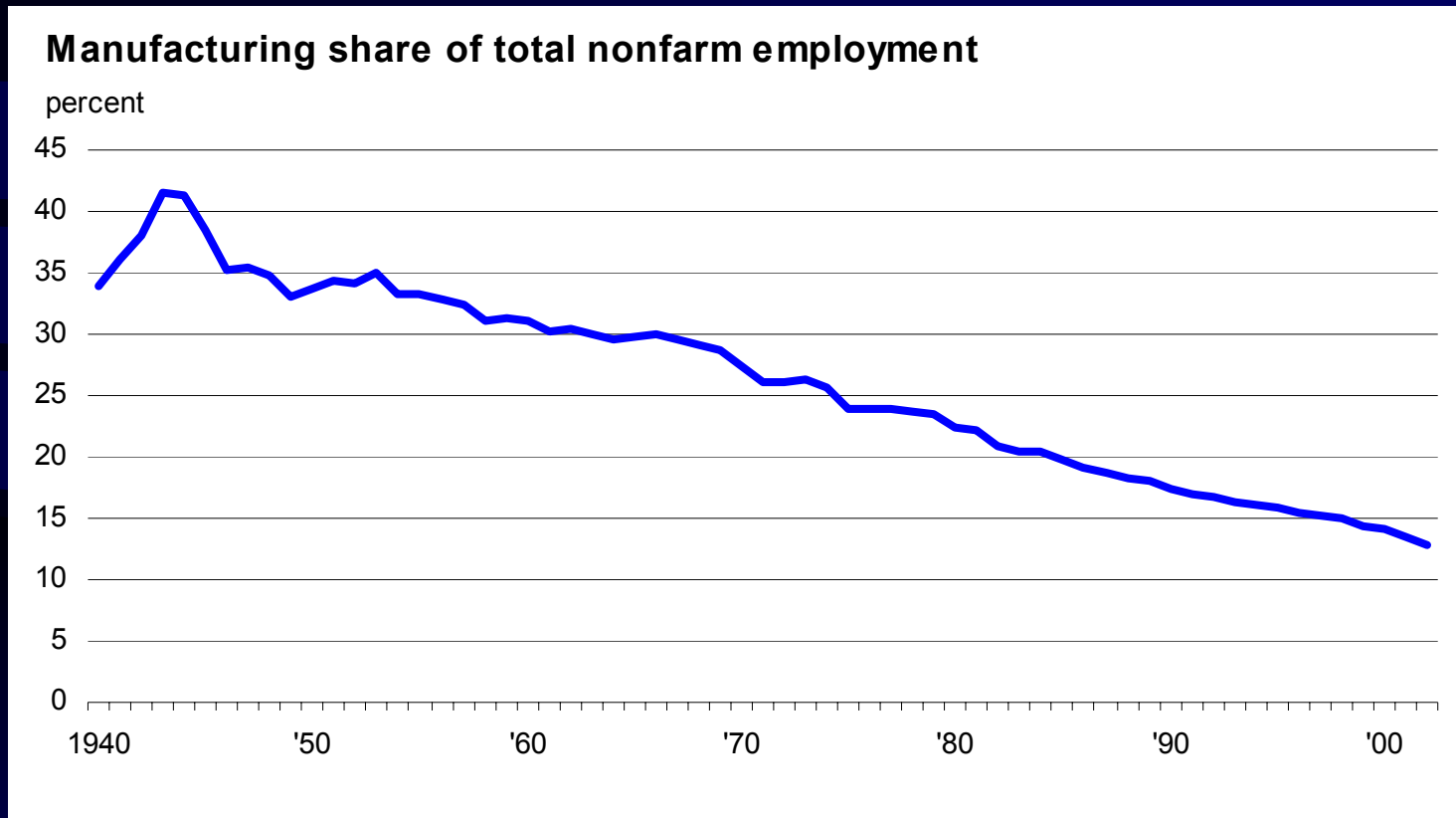
**Is Midwest Manufacturing
at a Crossroad?**
Chicago, Illinois
September 30, 2003

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Federal Reserve Bank of Chicago

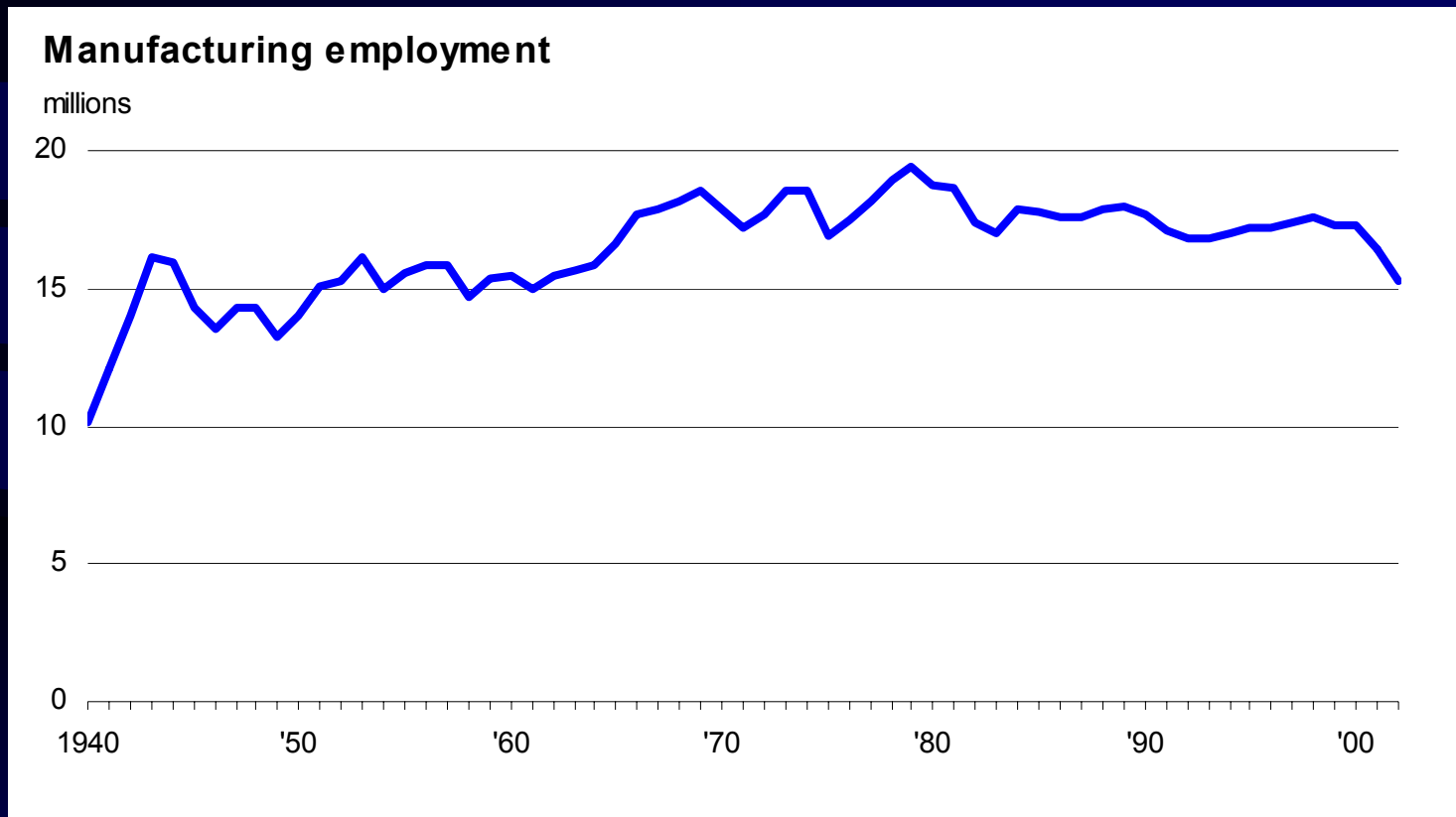
Fact?

**The United States is losing
its manufacturing base**

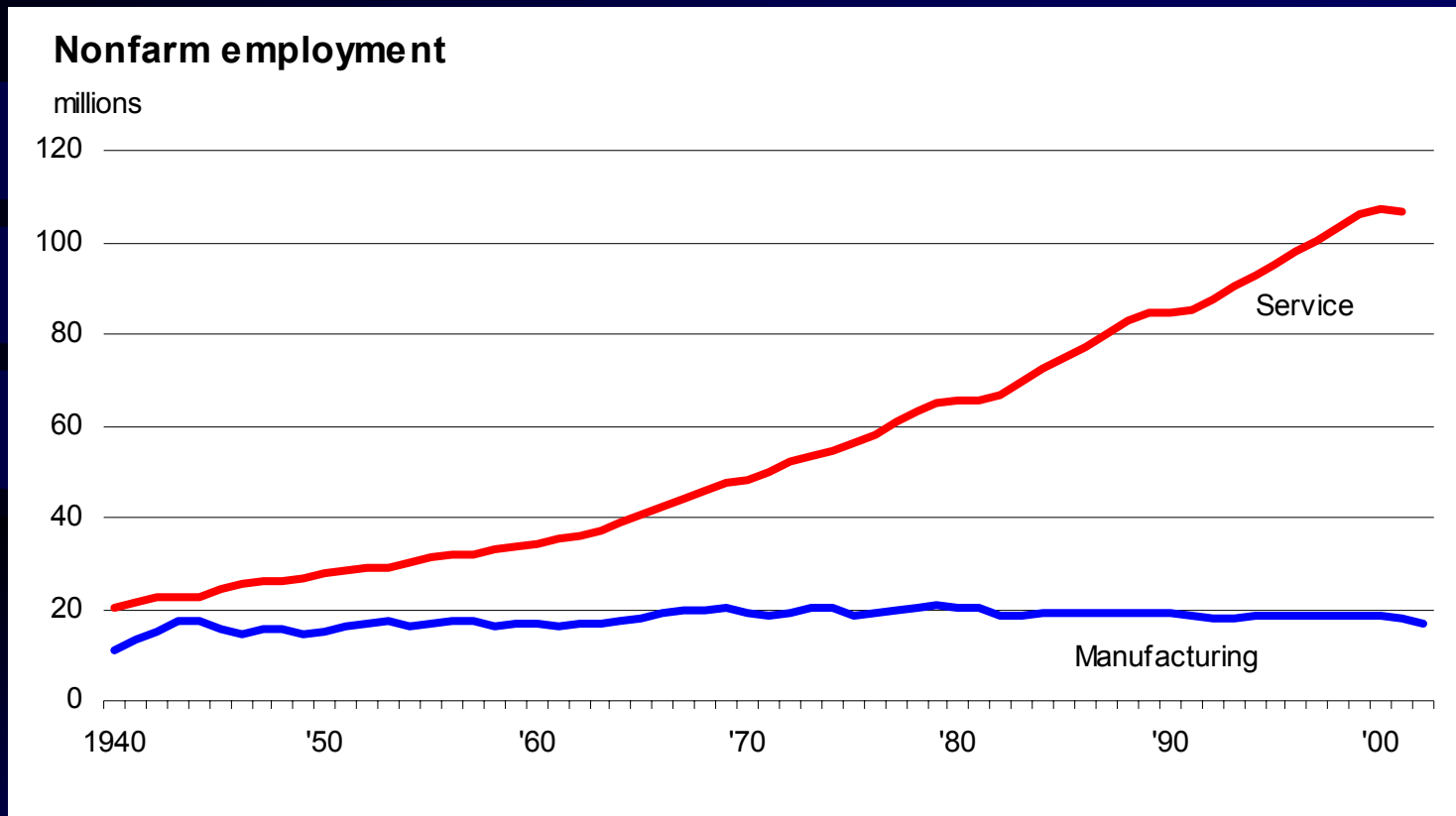
Manufacturing employment as a share of national employment has been declining for over 50 years



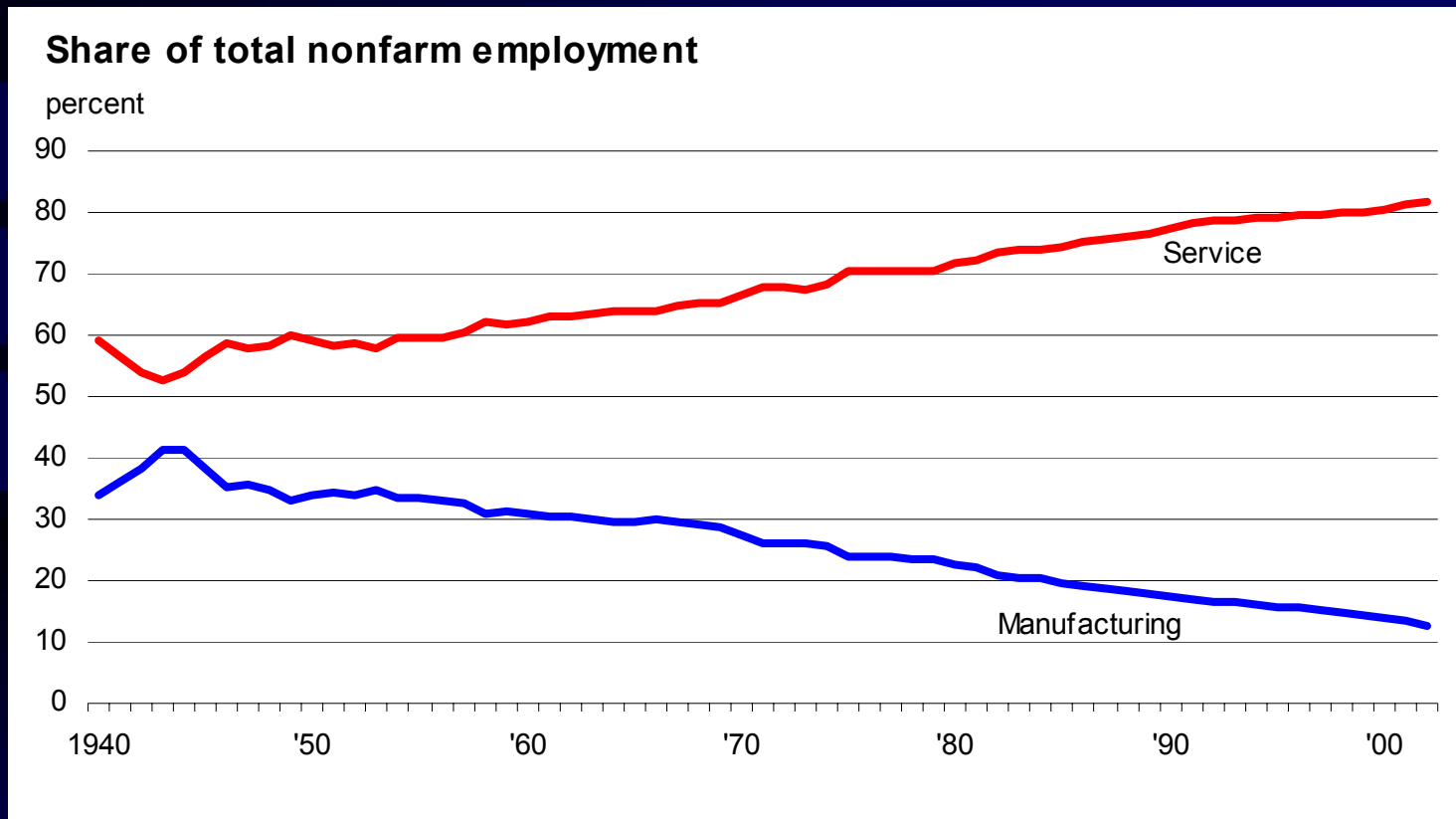
The number of jobs in manufacturing has been relatively stable over this period, averaging 0.3% growth per year since 1947



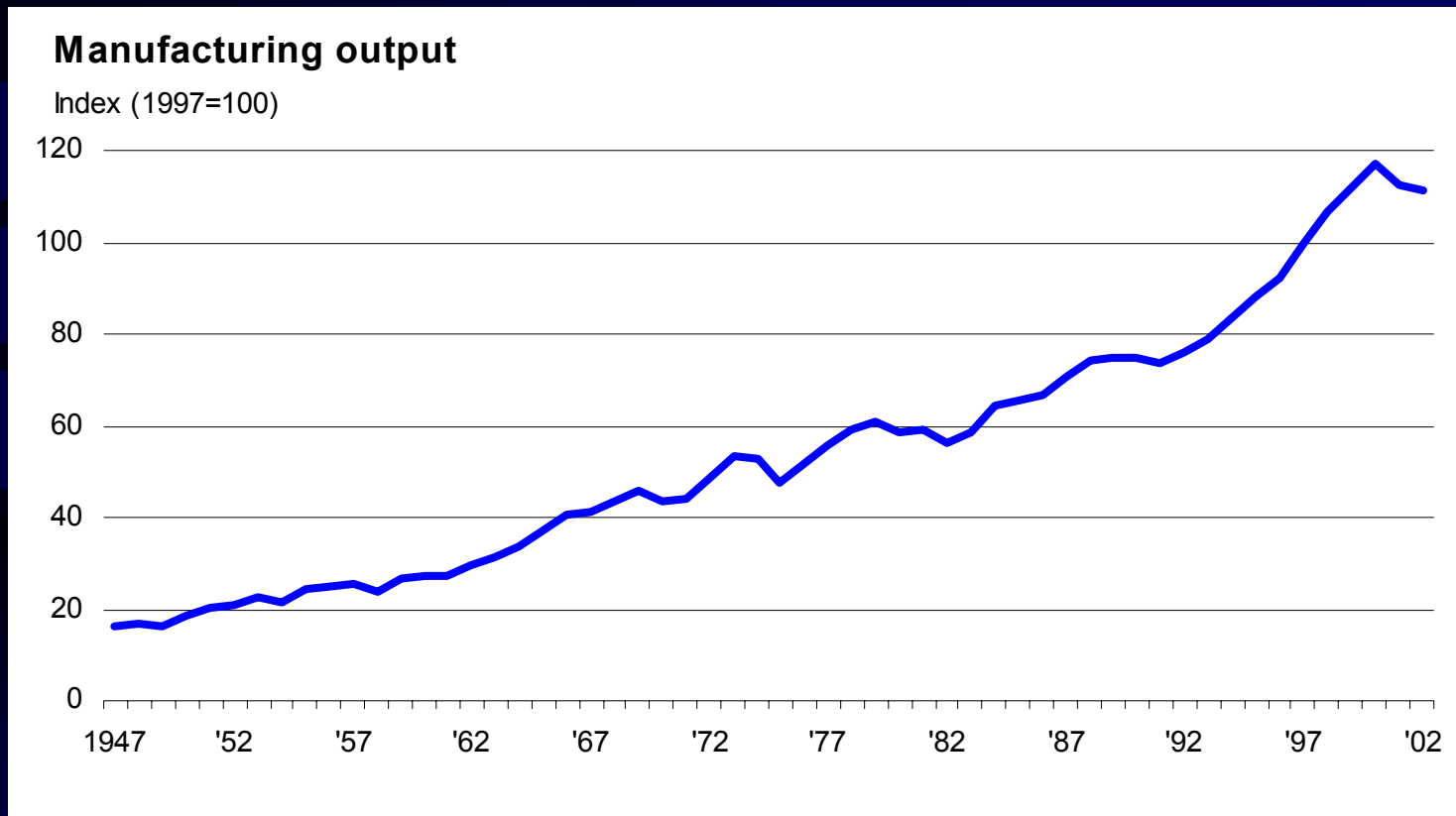
The service sector has grown by more than fivefold over this period, averaging 2.6% growth per year since 1947



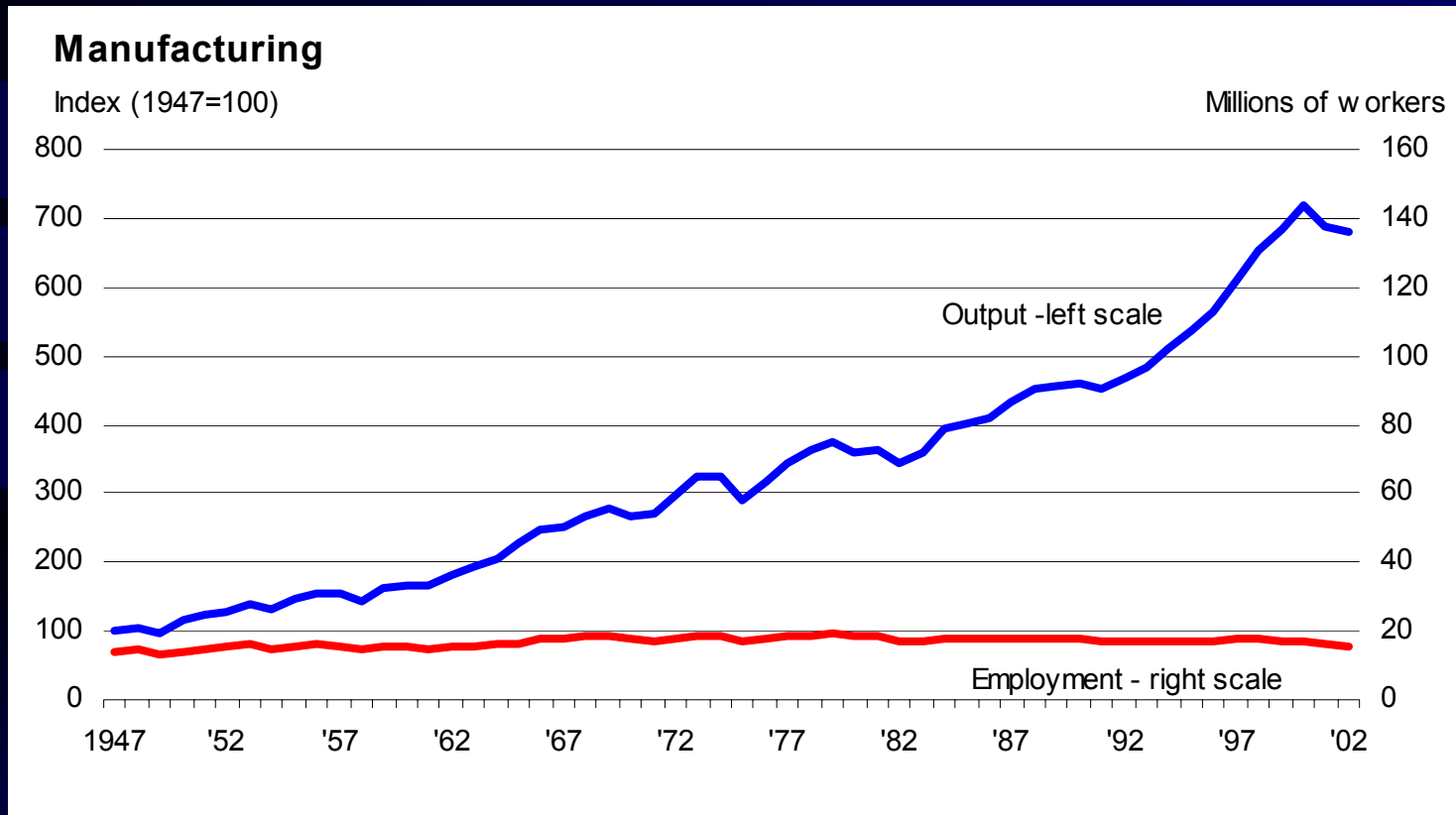
This has decreased manufacturing's share of total jobs and increased the service sector's share



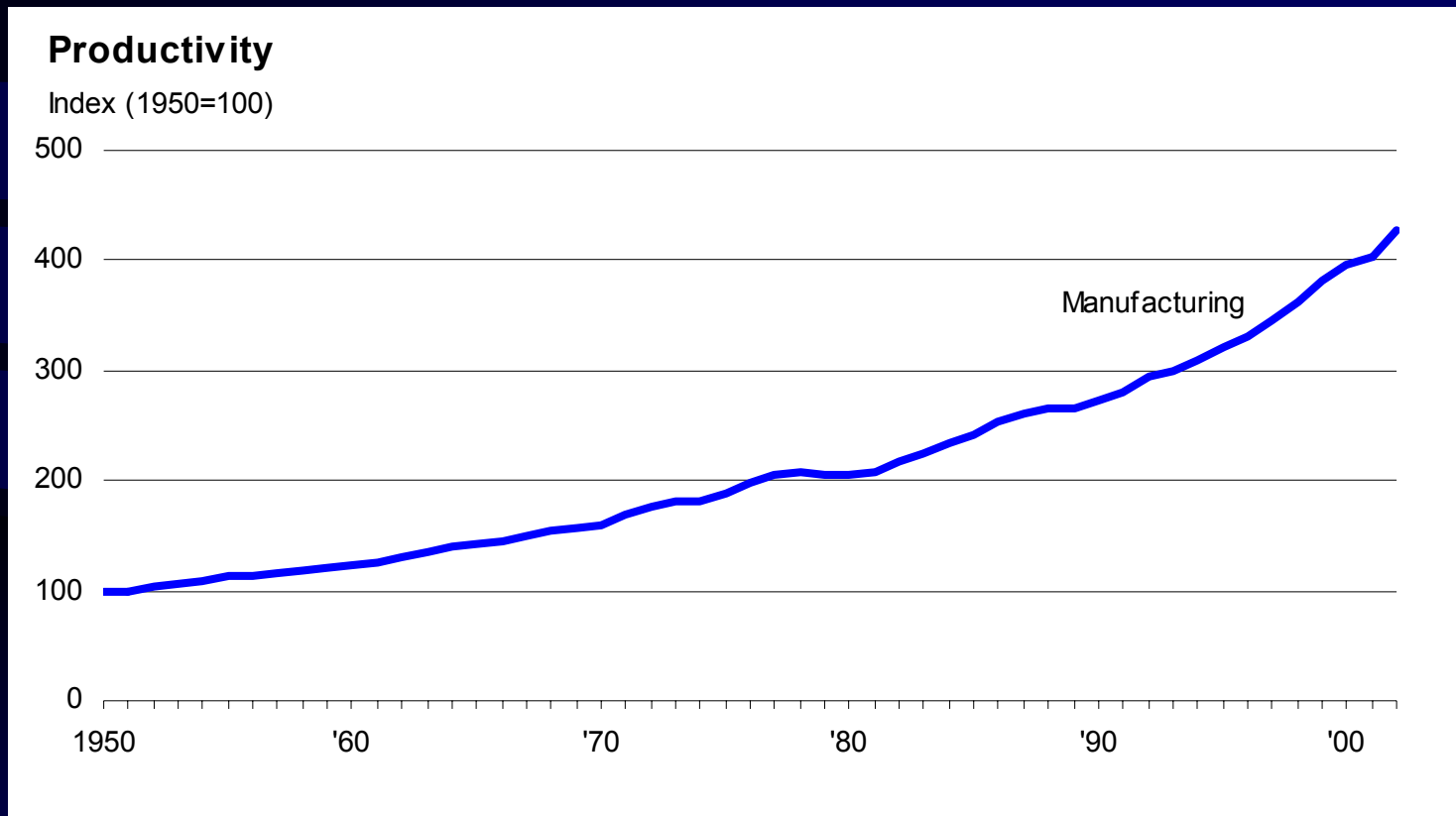
**While manufacturing employment
was flat over the past 50 years,
manufacturing output increased
by 3.8% per year**



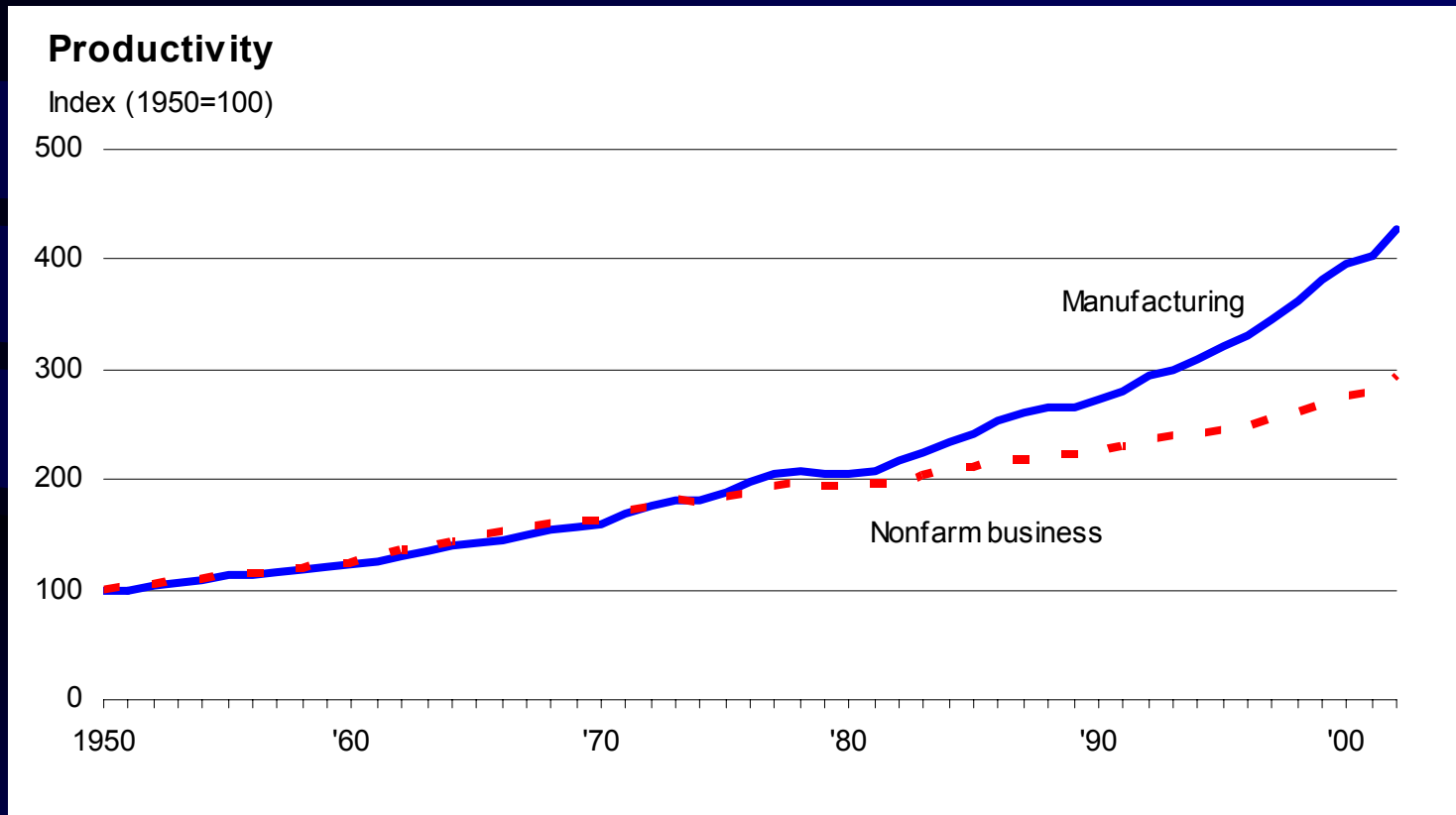
This translated into a 600 percent increase over this time period



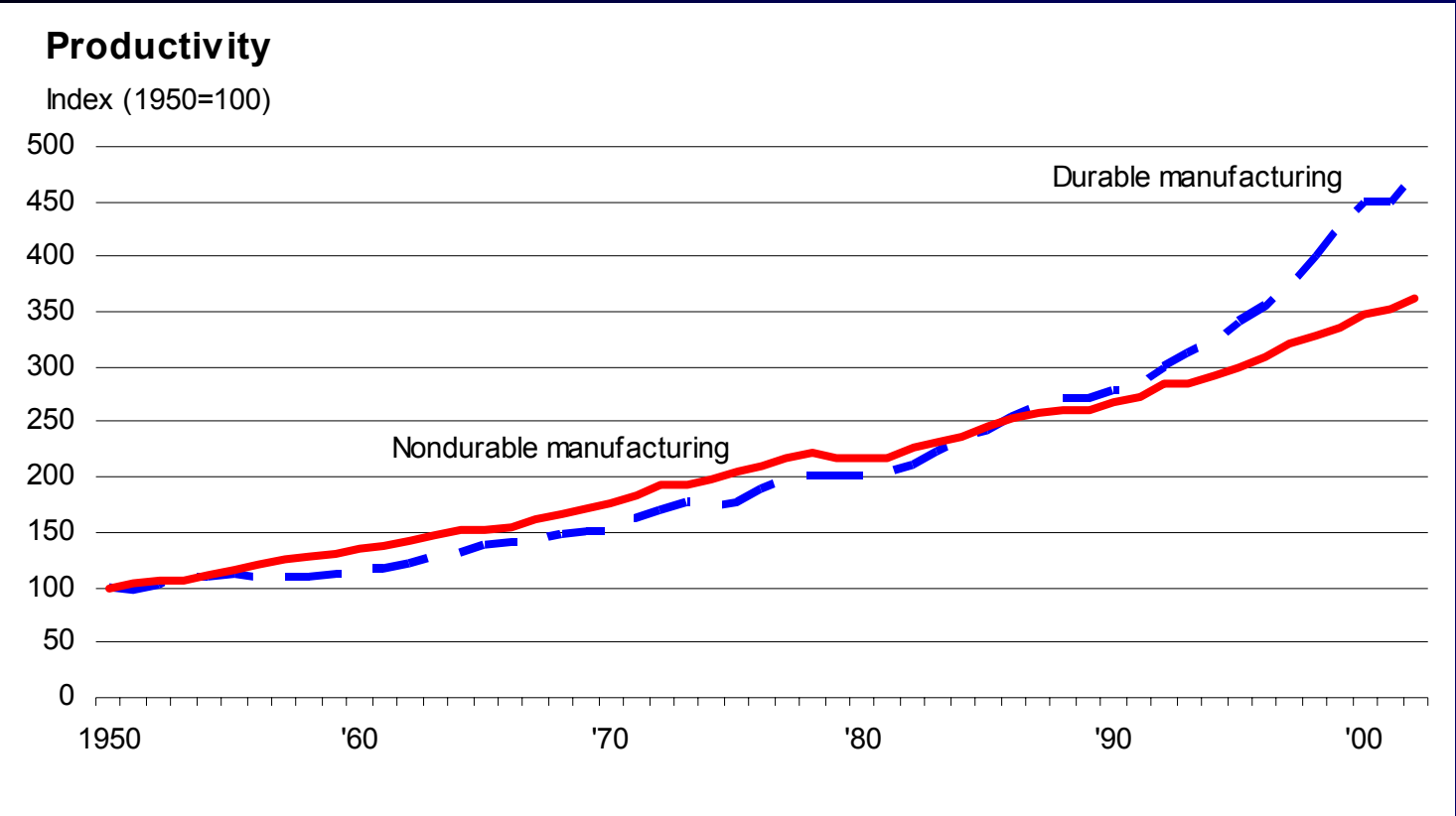
The increase in output can be attributed to strong productivity growth experienced by the manufacturing sector



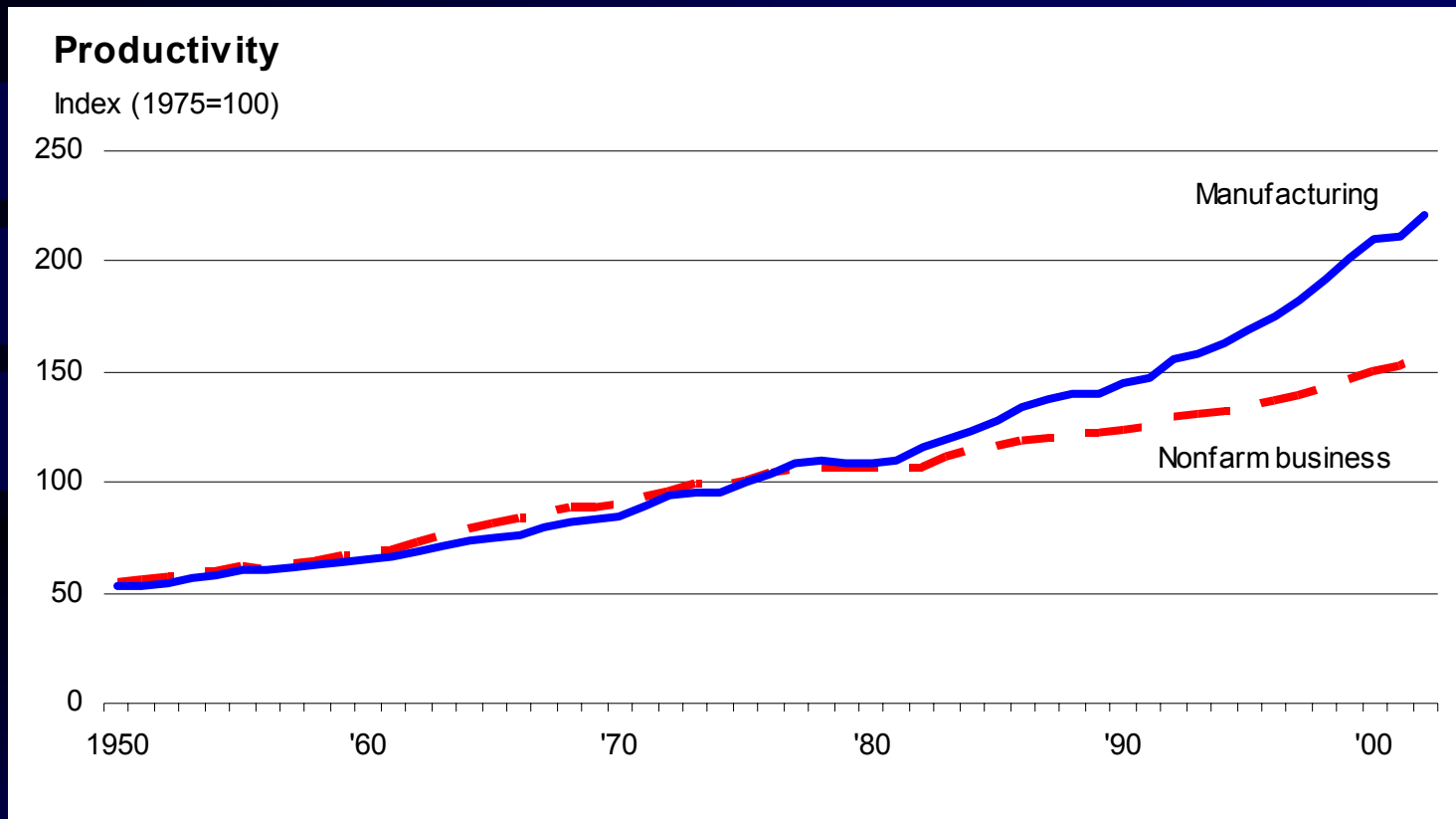
Over the past 50 years productivity in the manufacturing sector increased 2.8% per year, more than the 2.2% for the nonfarm business sector



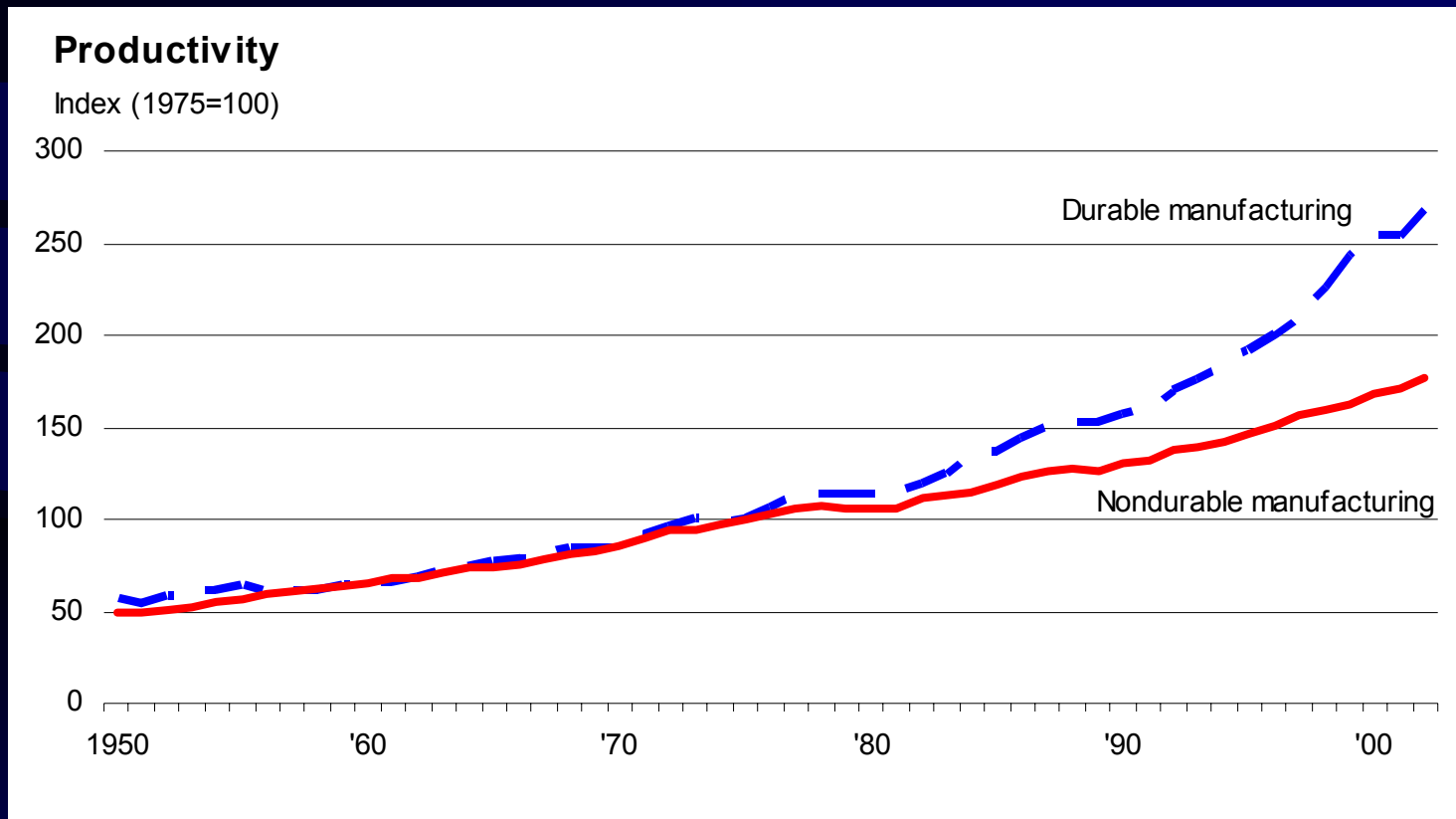
Productivity in the durable manufacturing sector has been stronger than in nondurable manufacturing



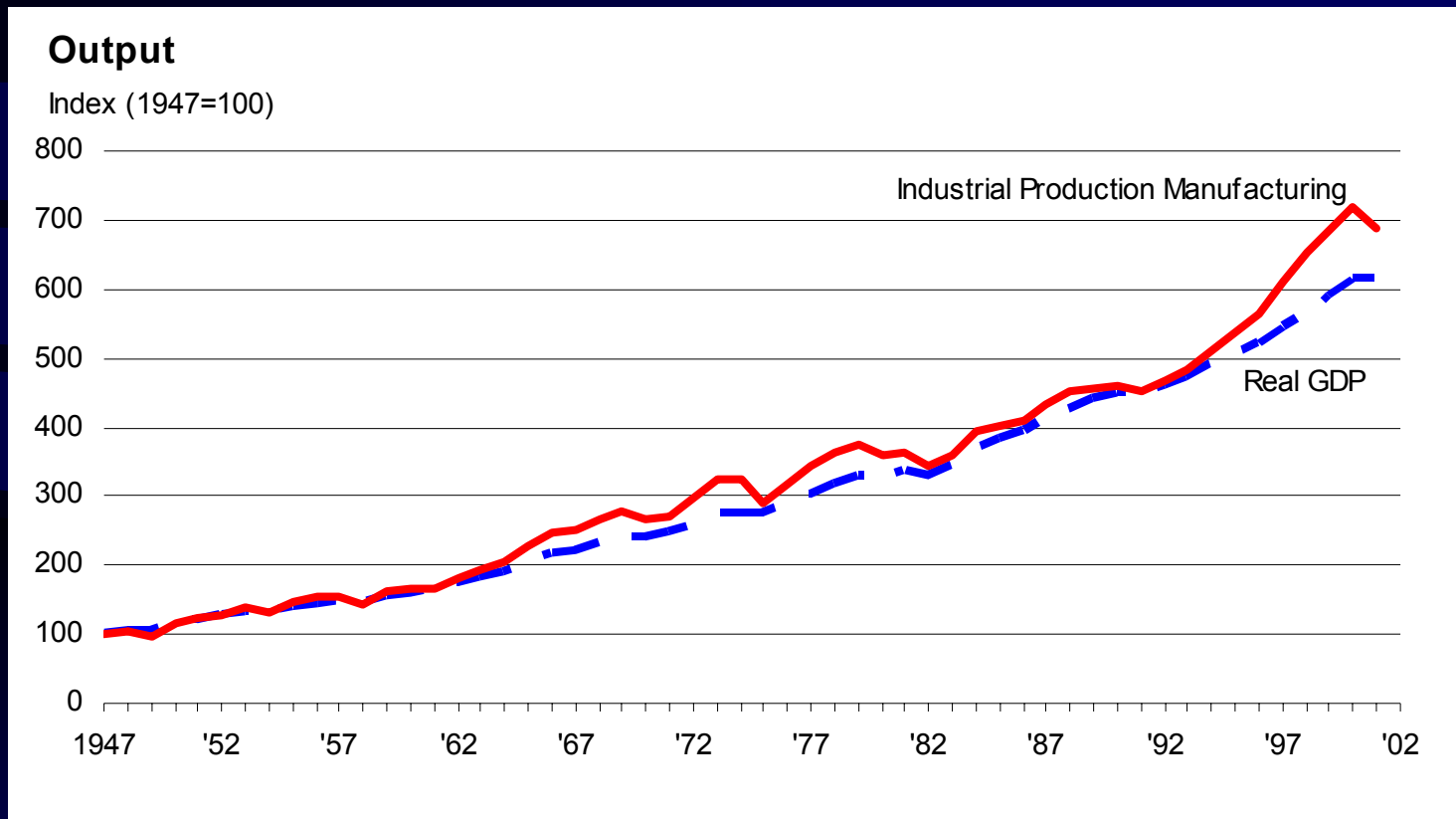
The divergence in productivity appears to occur around the mid-70s



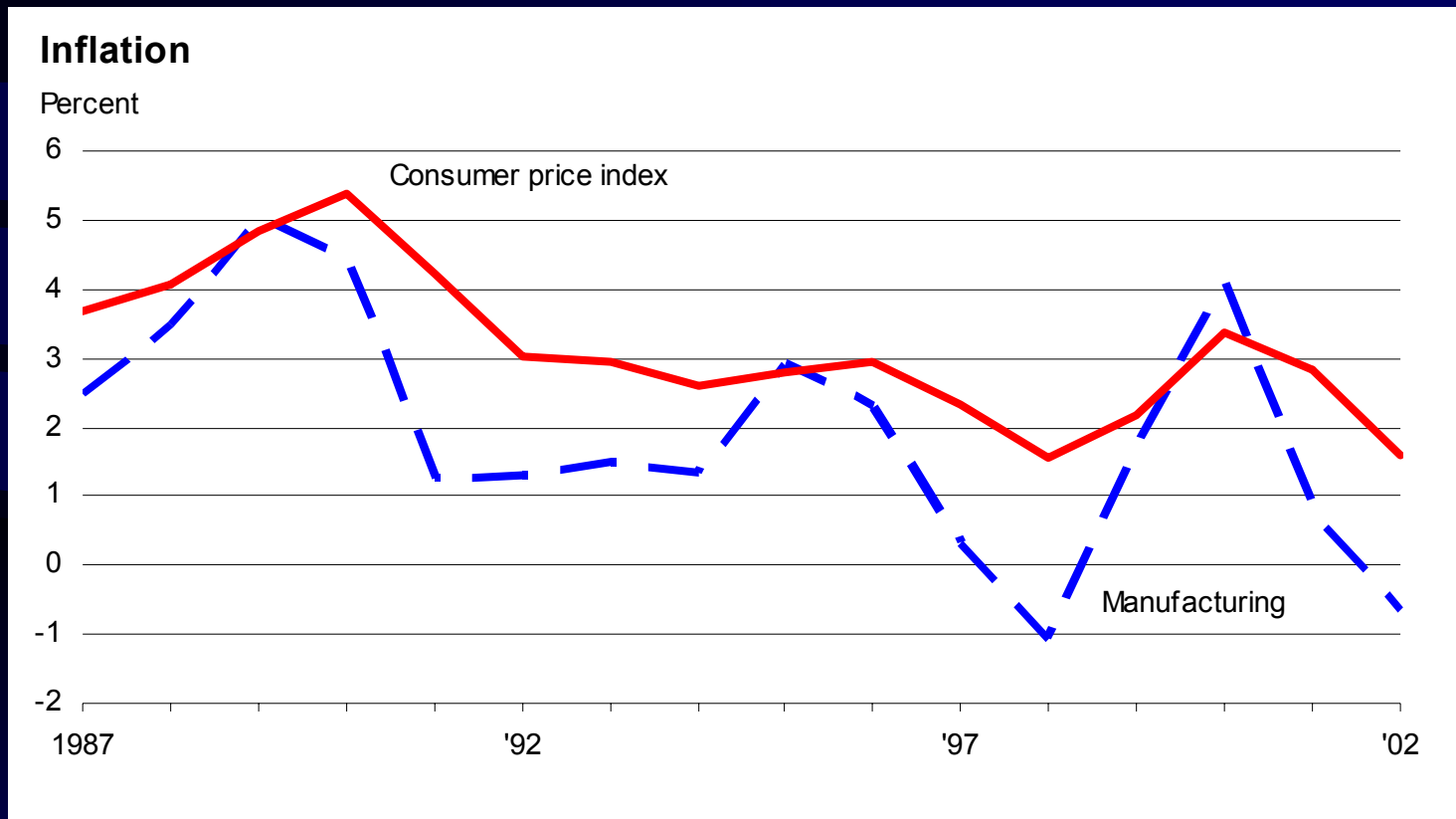
This is especially apparent in durable manufacturing



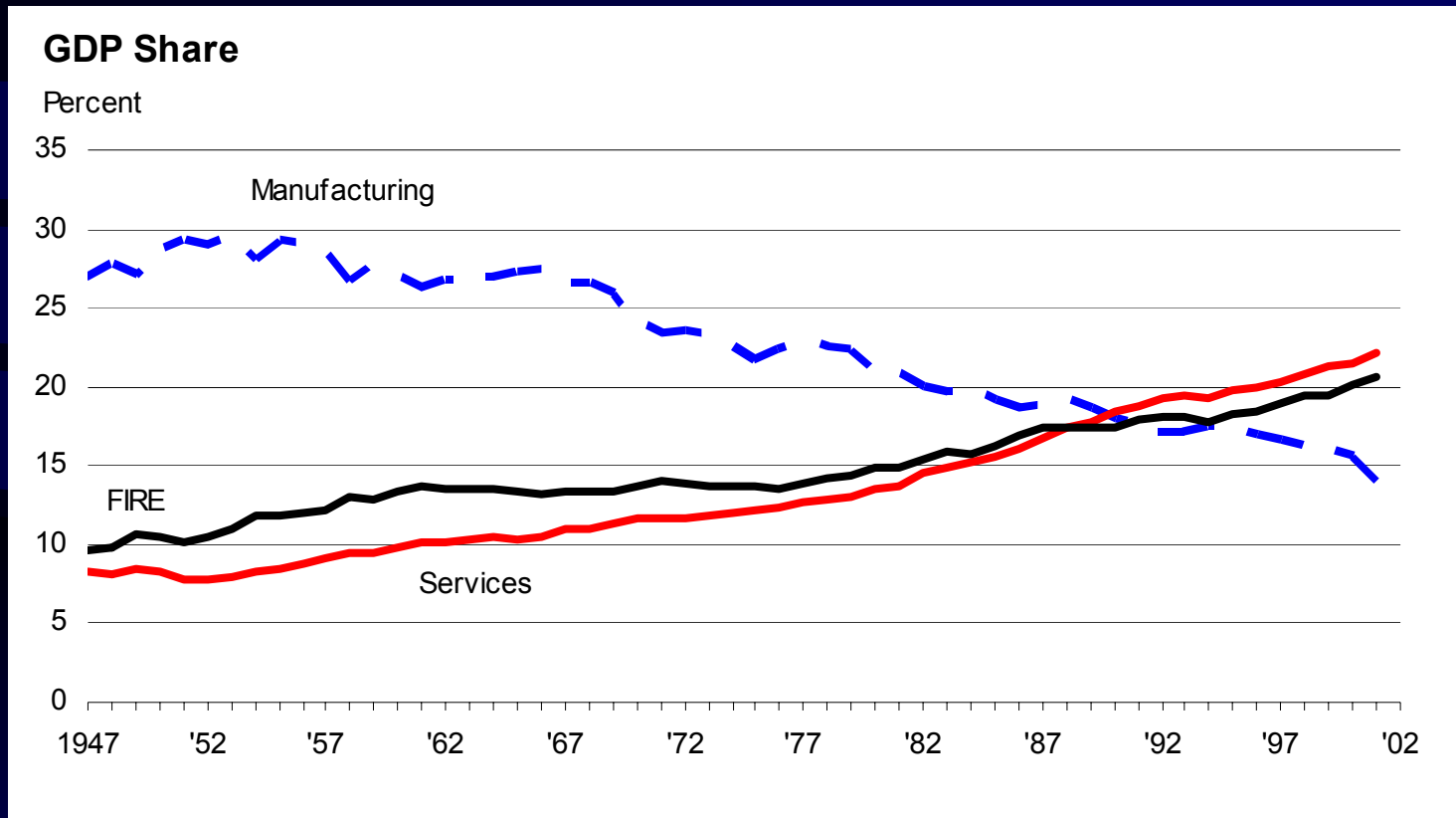
Strong productivity growth has allowed the manufacturing sector of the U.S. economy to grow faster than the overall economy



**Due to strong productivity growth,
price increases in the manufacturing sector
have been lower than overall price increases**

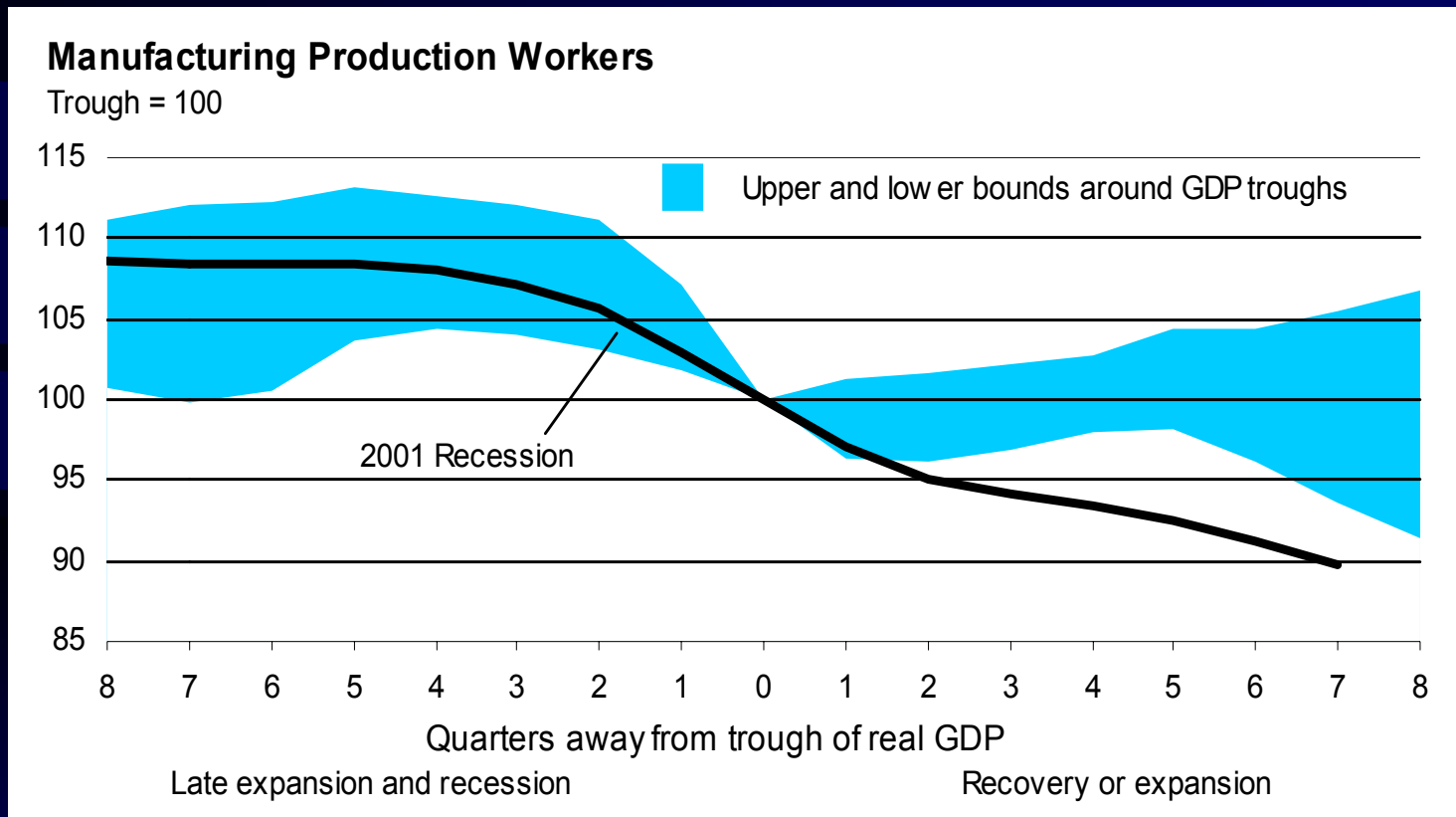


The lower relative prices in the manufacturing sector has lead to manufacturing comprising a smaller share of GDP over time

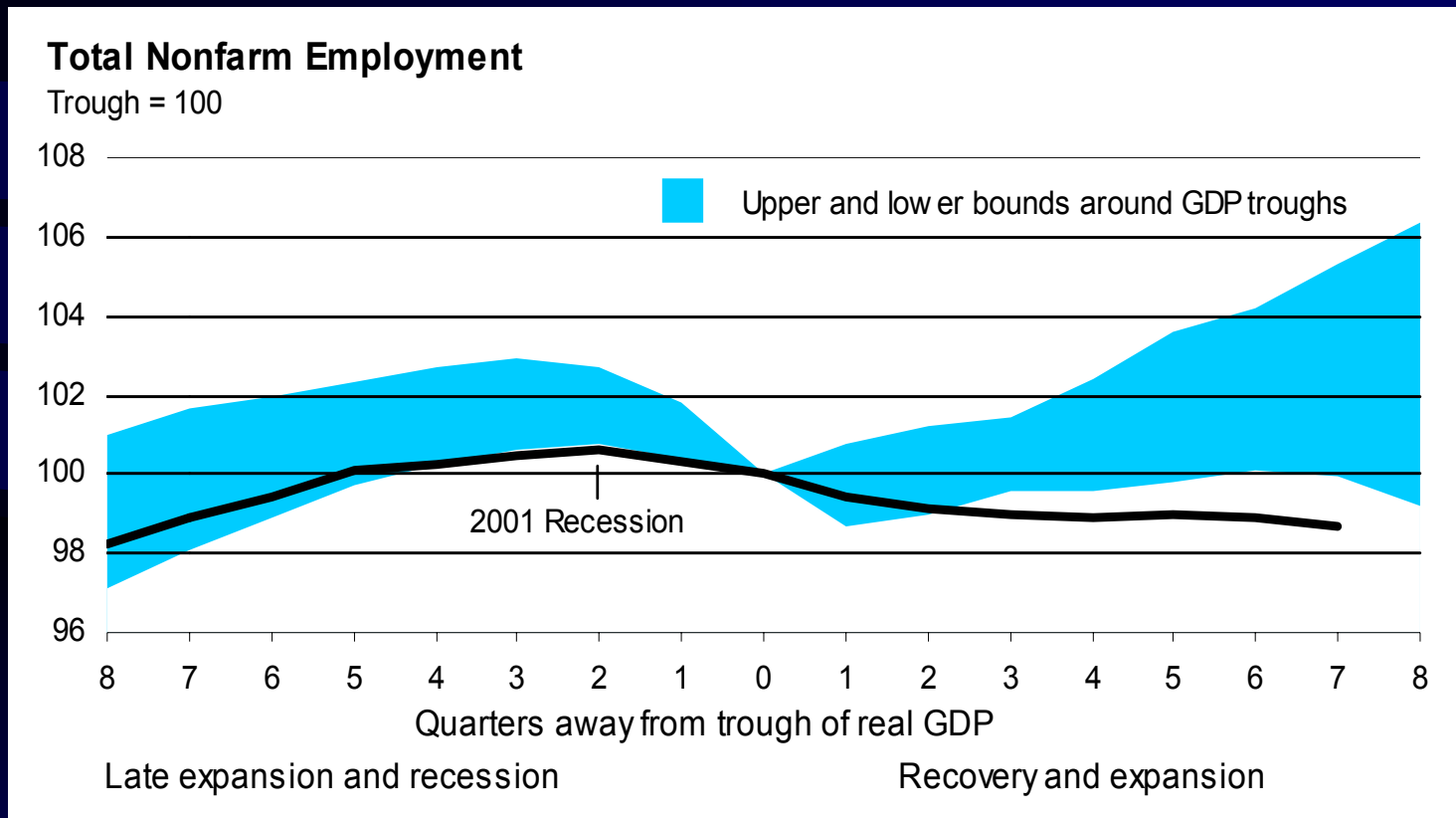


**The current doldrums in
manufacturing employment
are closely linked with the most
recent economic recession**

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



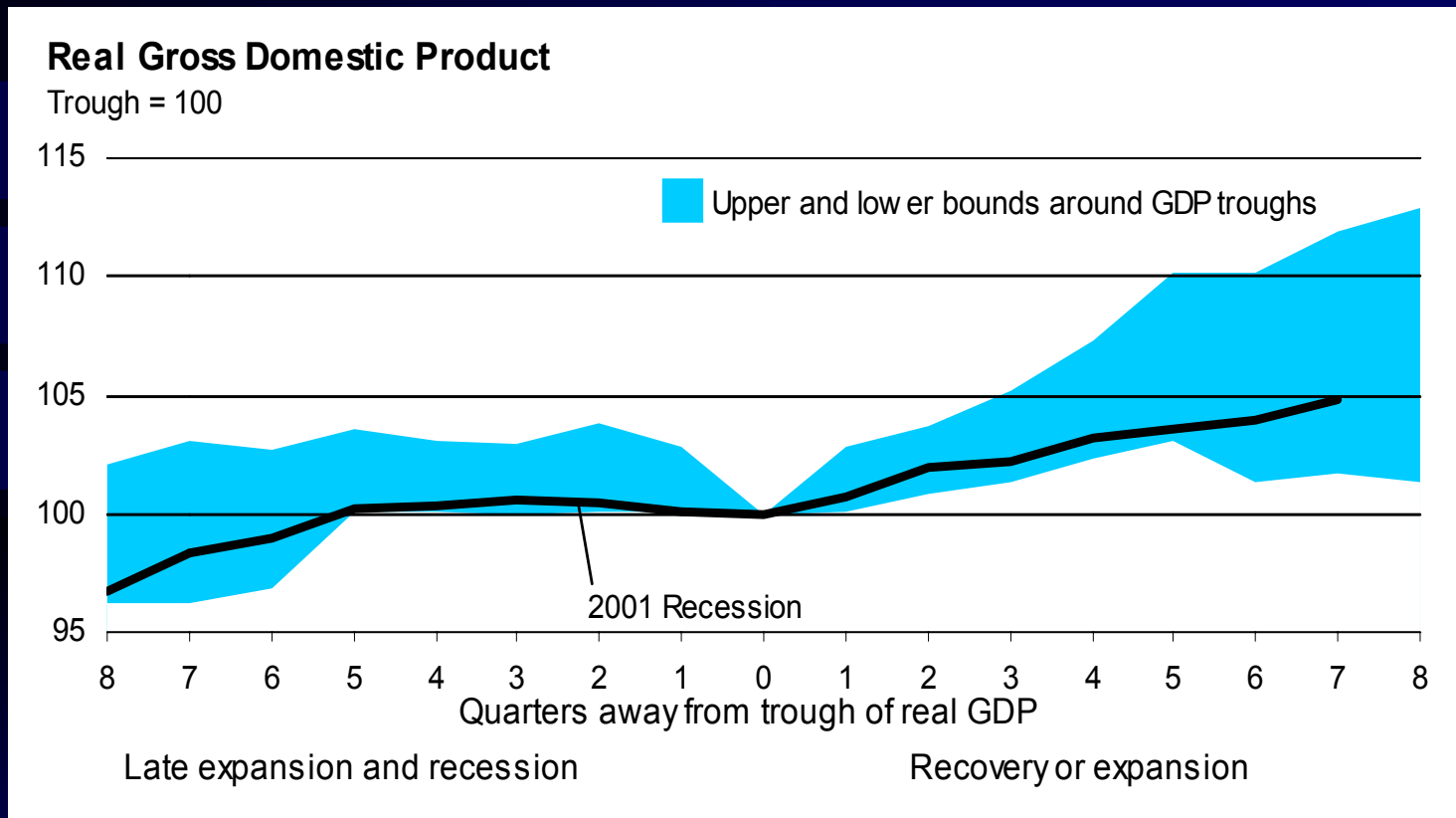
But so has everybody else



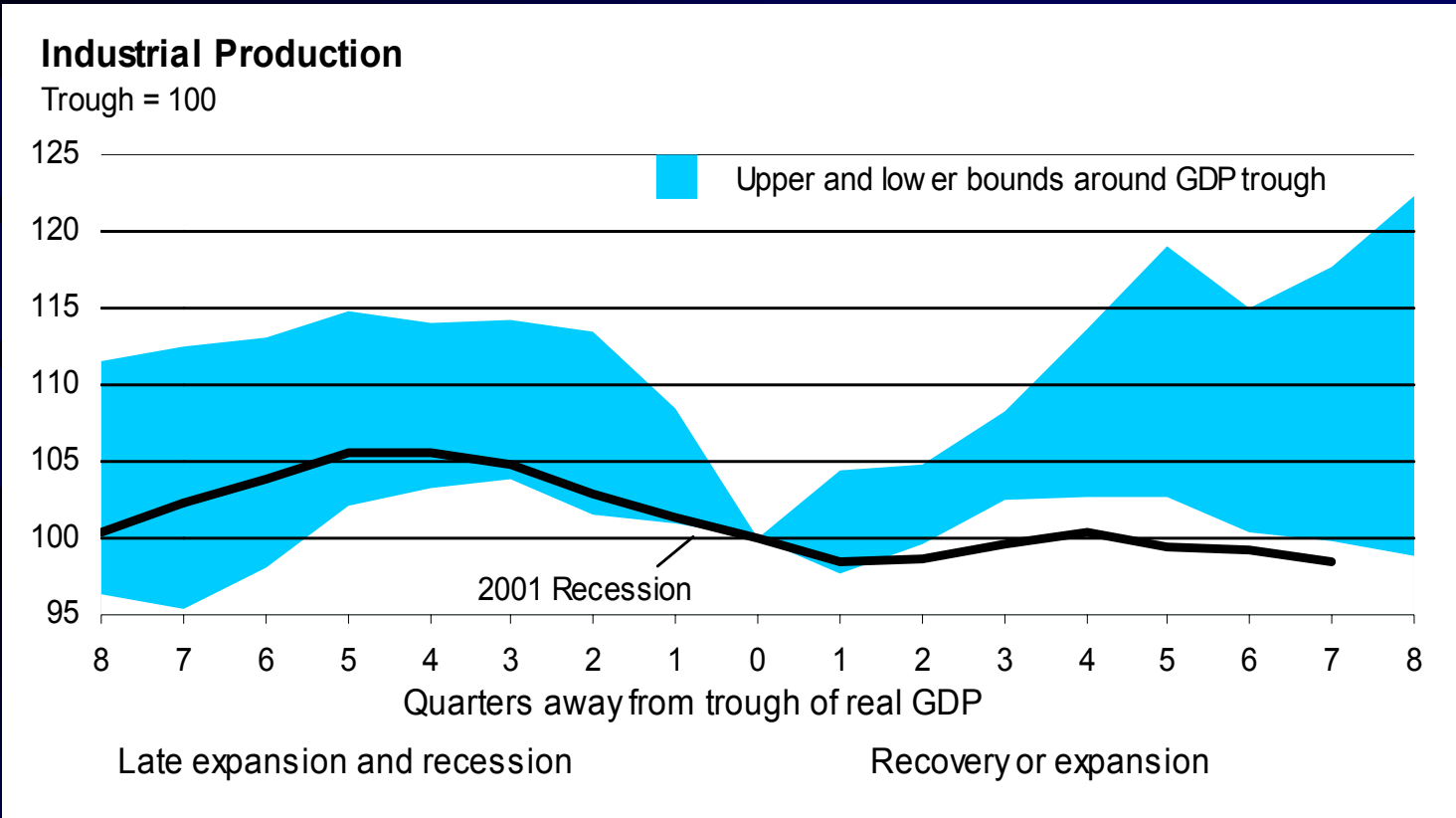
The economy has been hit hard by a number of negative economic shocks over the past few years

- The equity market collapse that began in early 2000
- Soaring energy prices in late 2000 and again in late 2002
- The September 11, 2001 attack on the United States
- The corporate governance scandals that started in late 2001
- The geopolitical uncertainties regarding Iraq that began in the fall of 2002

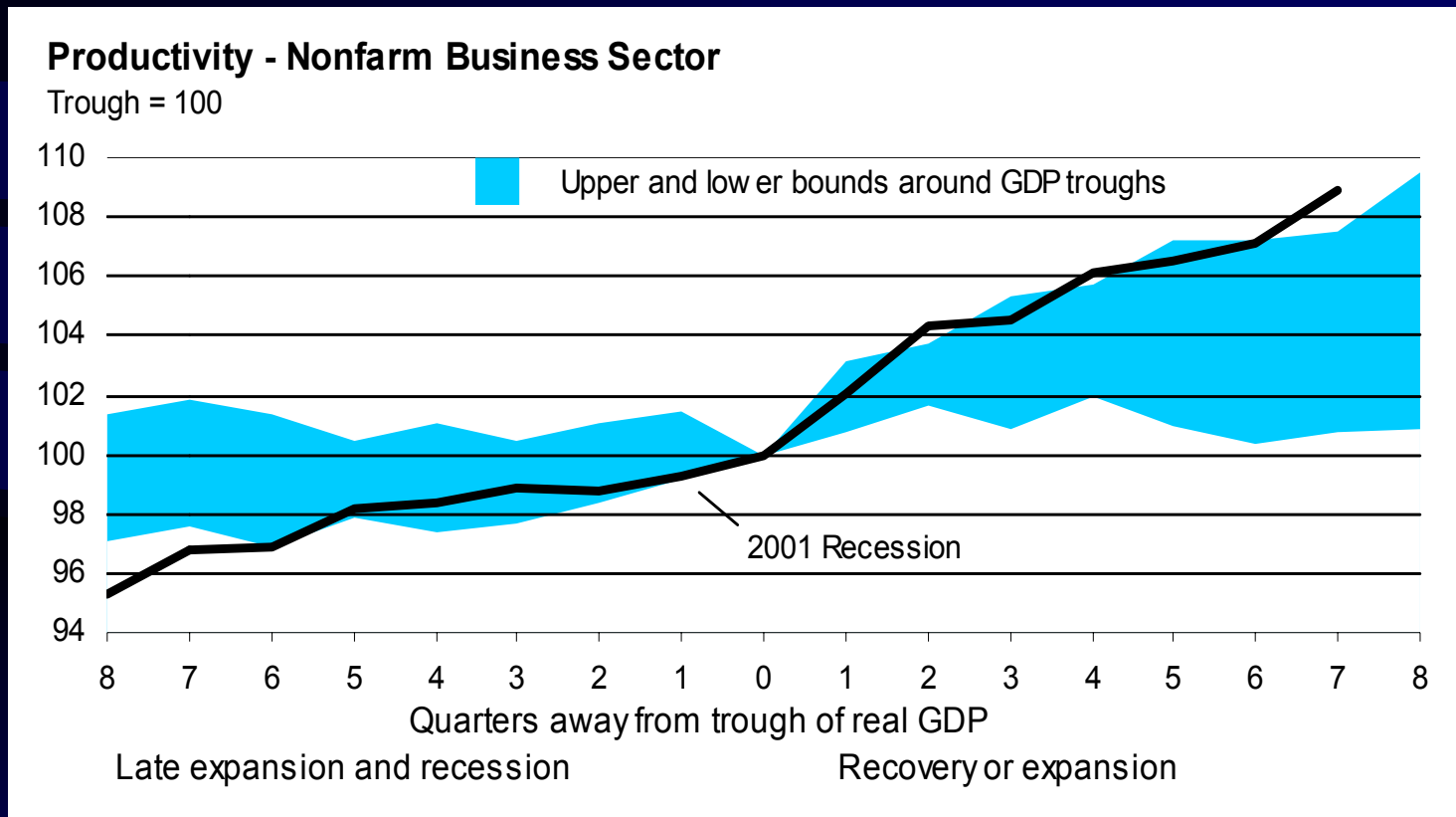
These shocks have hampered the current economic expansion



The loss of manufacturing employment is consistent with the declines in overall manufacturing production



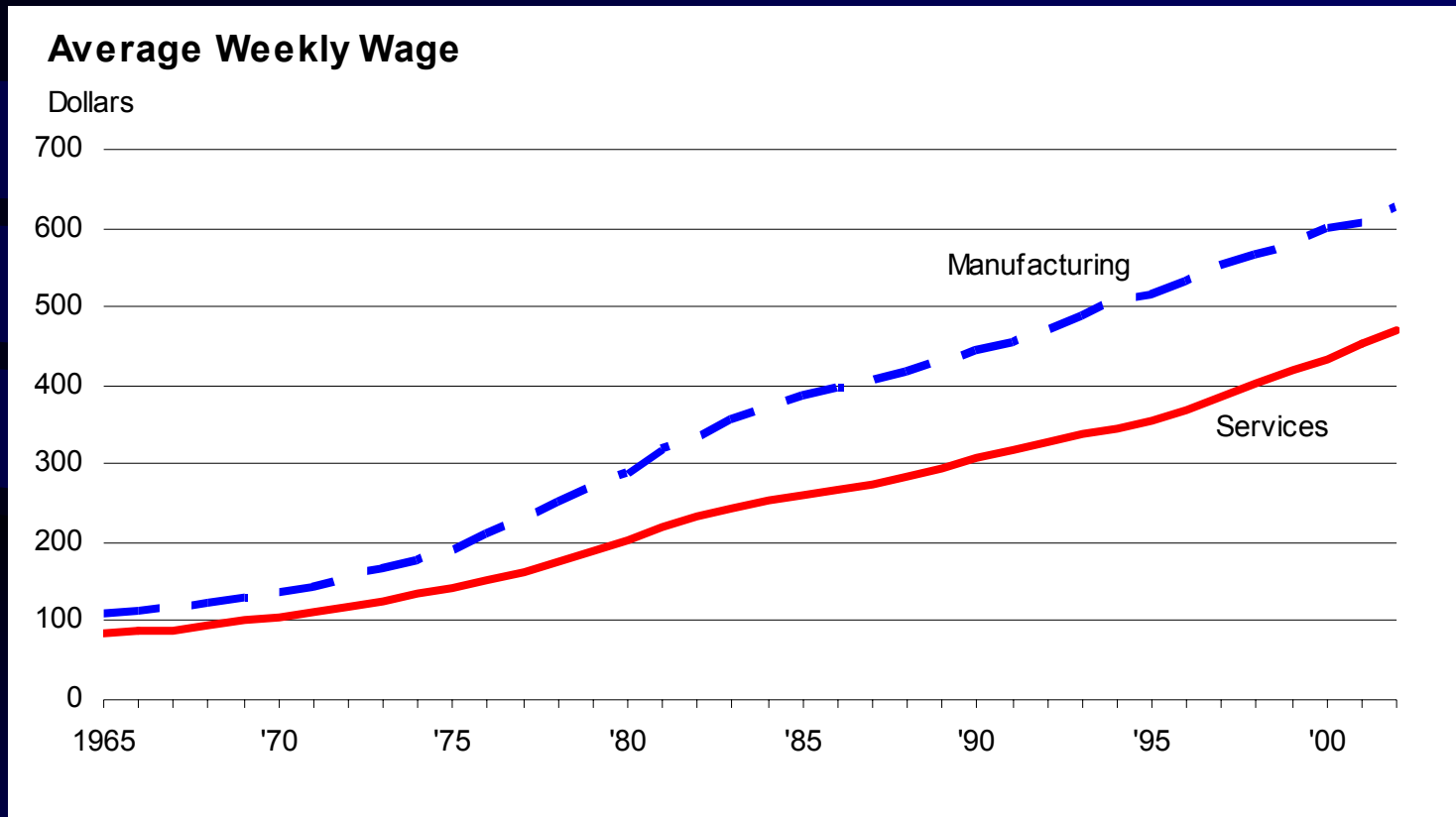
Productivity has grown at a rate that puts it on the upper bounds during the current period – this is a double edged sword



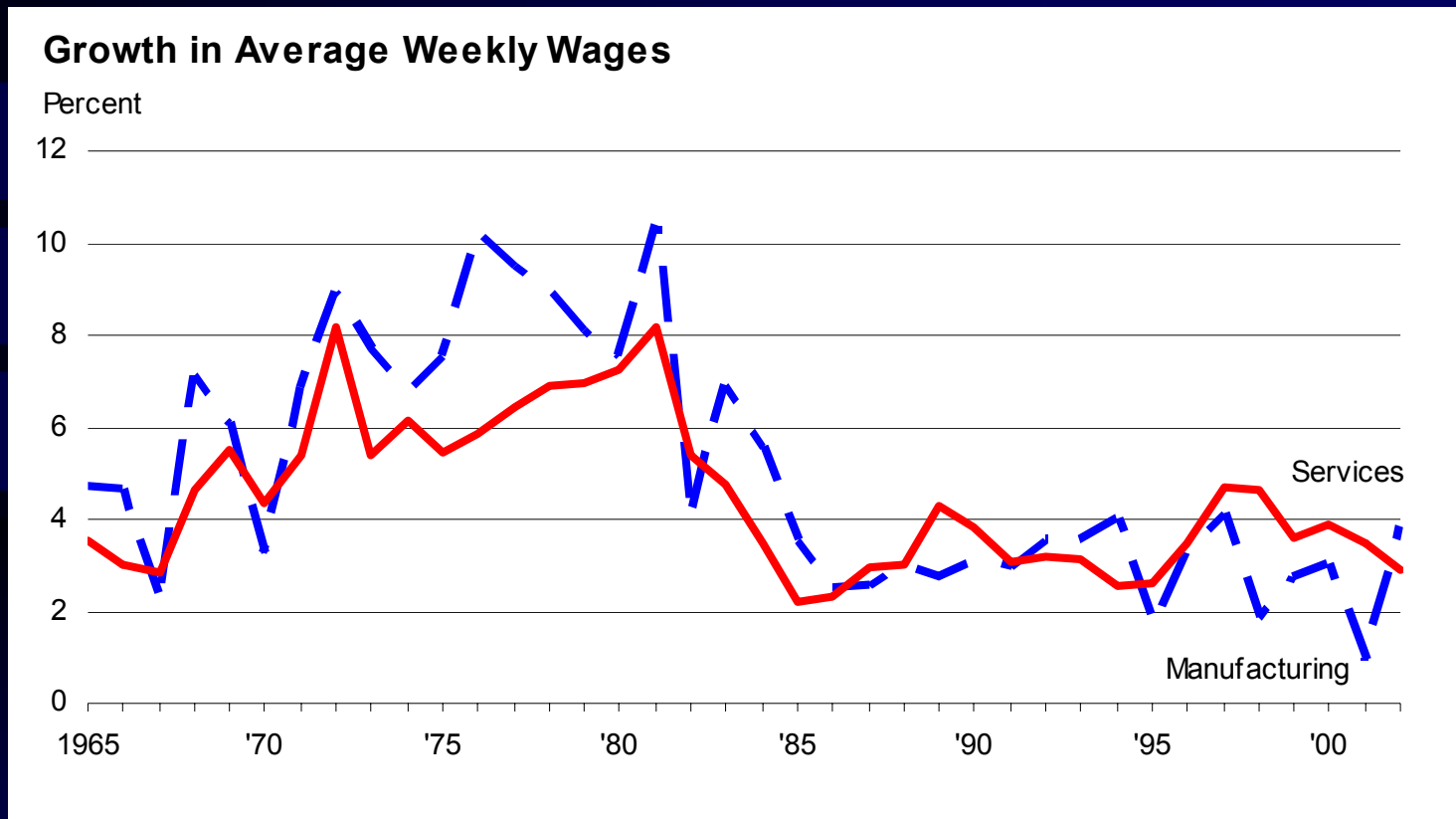
Fact?

**Manufacturing jobs are higher paying jobs,
and if we lose these jobs,
we will be a nation of hamburger flippers**

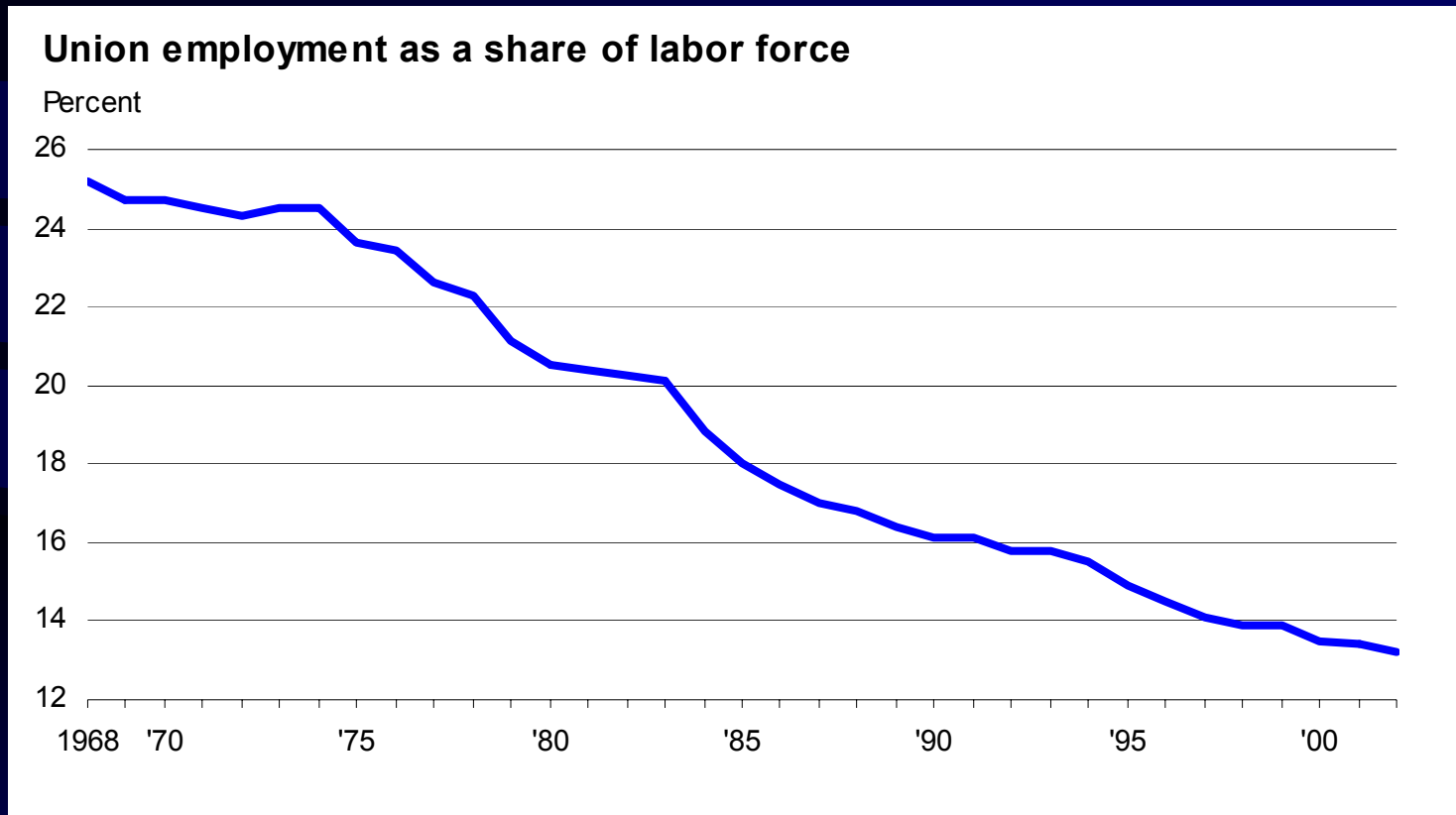
Wages are higher in the manufacturing sector



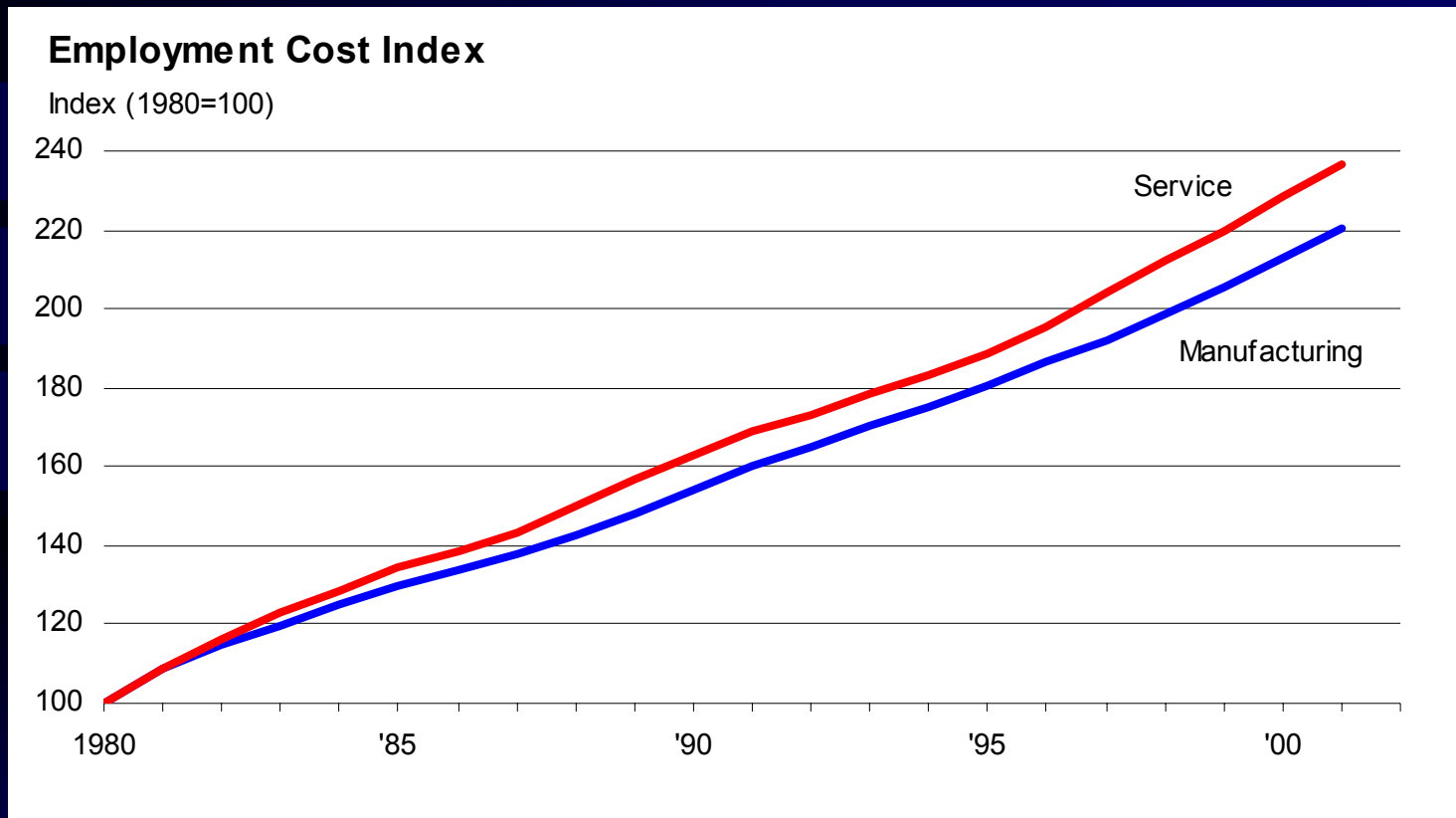
**However, over the last fifteen years,
service sector wages have been
growing at a faster rate –
2.9% per year for manufacturing vs.
3.5% per year for services**



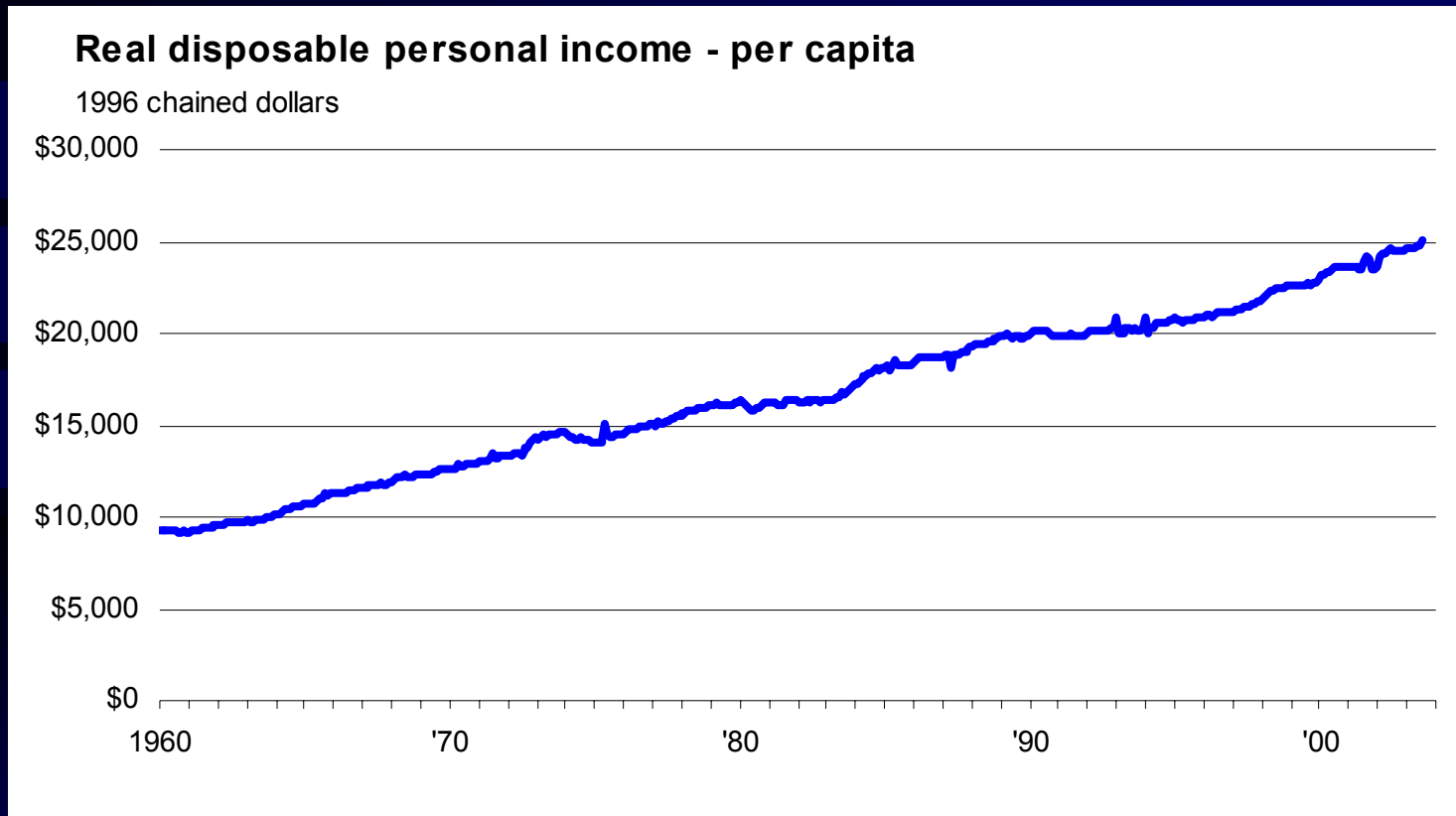
Unions have played a major role in obtaining higher relative wages in manufacturing jobs and consequently speeding up the substitution away from labor to capital



Since 1980, employment cost increases in the service sector has exceeded the manufacturing sector



Standards of living in the United States have never been higher

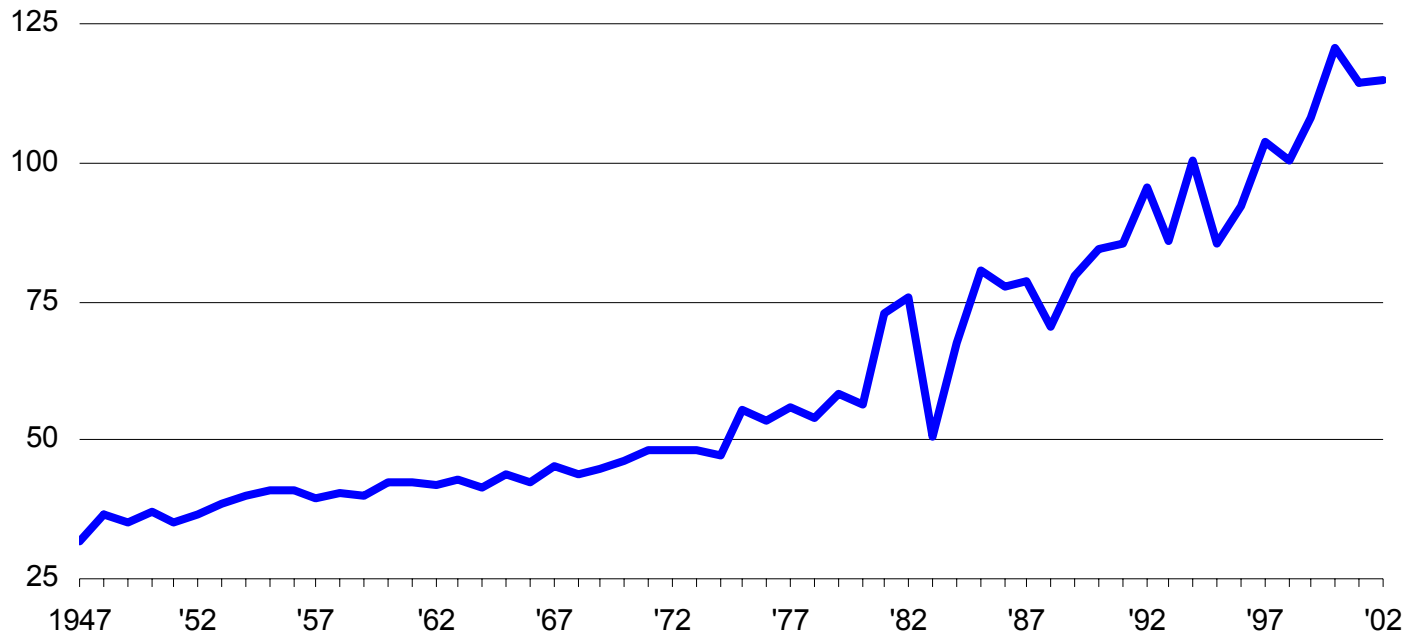


Lessons from the farm sector

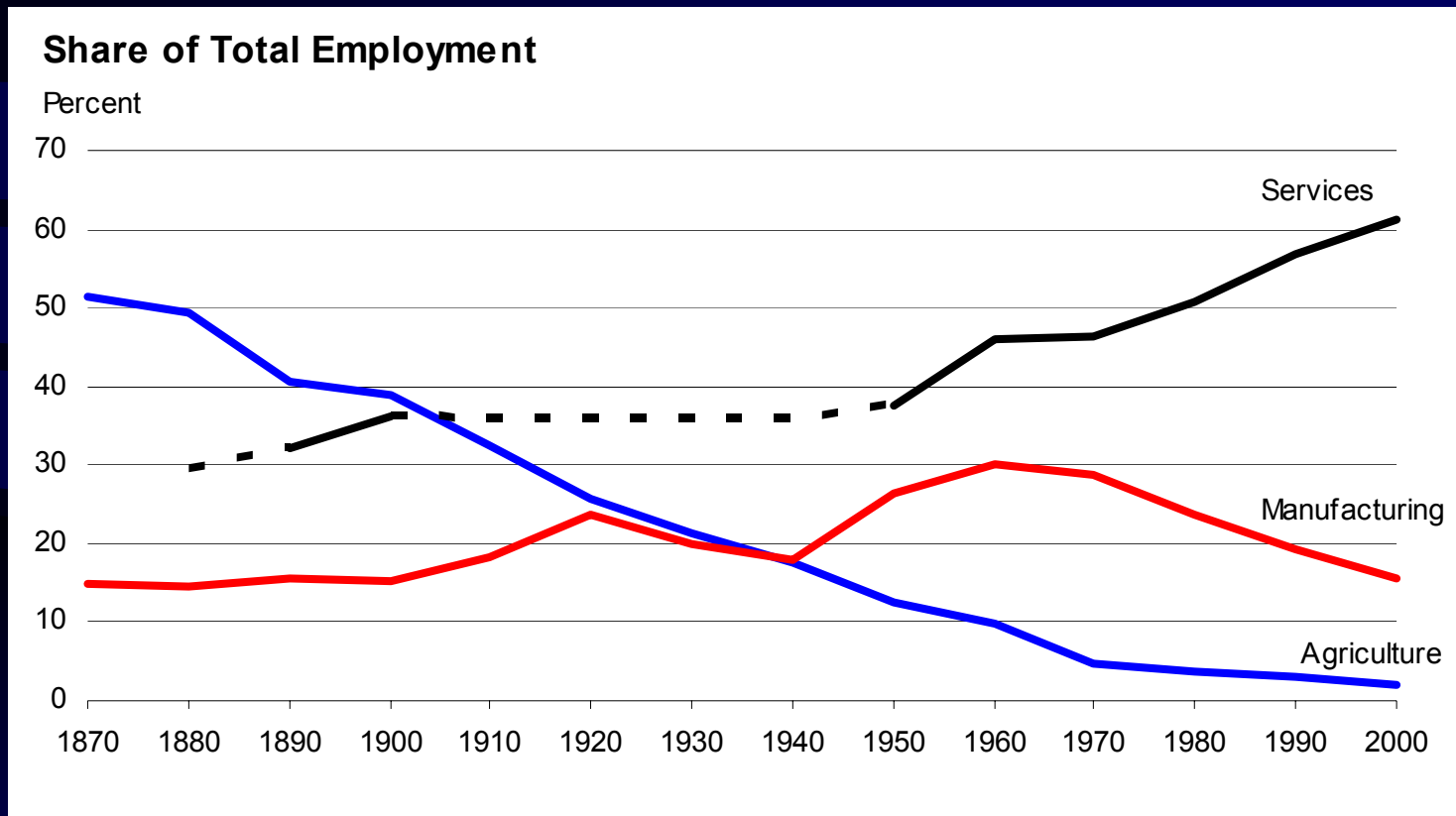
We are producing more in our farm sector than at anytime in our history

Real Gross Domestic Farm Business Product

Billions of 1996 chained dollars



And we are accomplished this remarkable feat with just 2.4% of our employment devoted to farming



Chicago Fed Letter - June 2003

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Questions