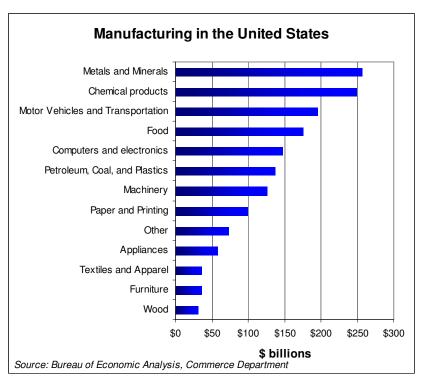
Manufacturing and the US Economy

July 13, 2009

by Sherle Schwenninger and Samuel Sherraden

US Manufacturing Today



Manufacturing is a central pillar of the US economy.

The manufacturing sector supported 13.4 million jobs in 2008, or about 8.7 percent of the civilian workforce.

Manufacturing industries generated 11.7 percent of total GDP in 2007.

US manufacturers exported \$1.12 trillion in manufactured goods in 2008—60% of all exports from the United States.

US manufacturing constituted approximately 22 percent of world manufacturing in 2007.

Why Manufacturing is Important

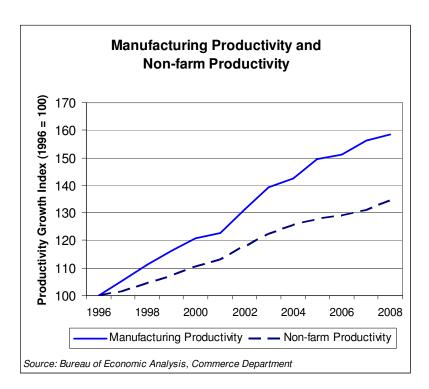
- For the economy
- For innovation
- For workers



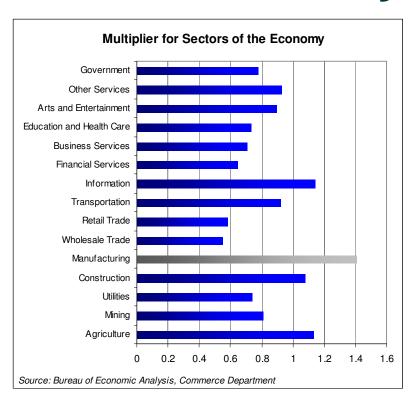
For the Economy I: Productivity

Manufacturing is the major productivity driver in the US economy.

Manufacturing is a productivity powerhouse and major driver of economic growth. Between 1997 and 2005, multifactor labor productivity in manufacturing grew at an average rate of 4.6 percent per year, 60 percent greater than in the private, non-farm economy as a whole.



For the Economy II: Multiplier



Manufacturing has the largest multiplier.

"Manufacturing is the bedrock of our nation's gross domestic product, producing approximately \$1.40 of additional economic activity for every \$1 of direct spending in the sector - more than all other US industries."

Leo W. Gerard, President, United Steelworkers David M. Rubenstein, Co-Founder and Managing Director, The Carlyle Group

Critical to other high value-added sectors.

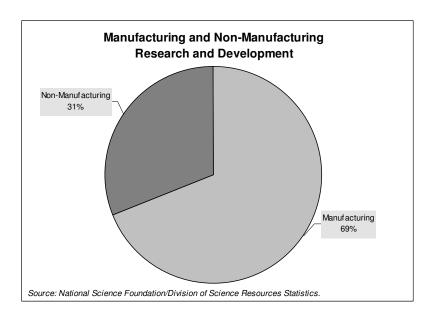
The maintenance of a strong manufacturing sector is essential to other high value-added sectors of the economy, including design, telecommunications, and finance.

For Innovation

Source of innovation.

The manufacturing sector is of vital importance in maintaining our innovative capacity because it is the source of many of the most critical inventions and scientific advancements. In 2006, private businesses and government invested \$172 billion in research and development in manufacturing, nearly 70% of all R&D in the US.

The manufacturing sector accounts for nearly 70% of R&D in the United States.



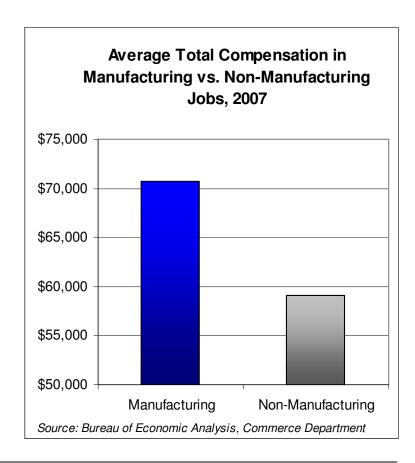
For Workers

Manufacturing provides good wages and benefits.

Today's manufacturing employees earn higher wages and receive more generous benefits than other working Americans. In 2007, compensation in manufacturing jobs was 20% greater than in non-manufacturing jobs.

Manufacturing jobs promote skill development.

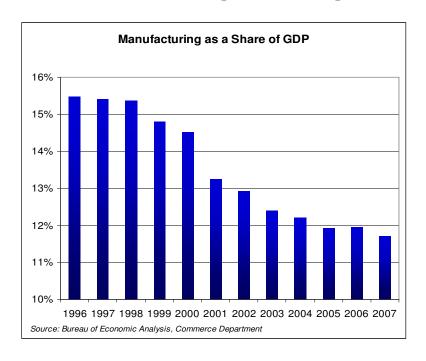
Manufacturing jobs promote the development of skills that can help workers move ahead in production and other industries.

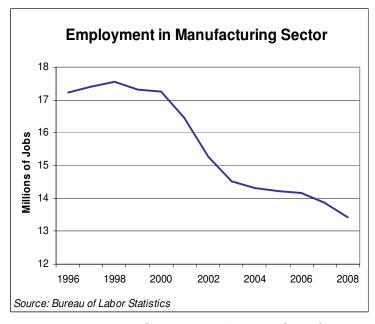


Worrying Trends I: Output and Employment

Manufacturing output as a percentage of US GDP has decreased.

From 1996 to 2007, manufacturing's share of GDP has fallen from 15.5 percent to 11.7 percent.





Employment in manufacturing is declining.

Employment in the manufacturing sector has declined by 4 million jobs in the past 10 years, and is suffering severe losses in the current recession.

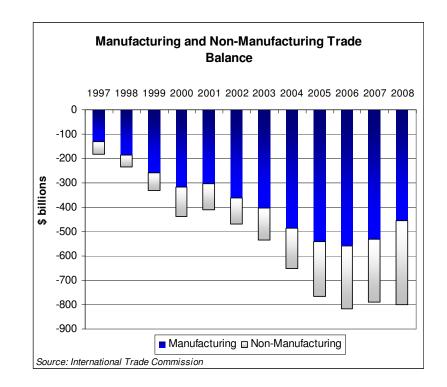
Worry Trends II: Trade Imbalance

As manufacturing has shrunk as a share of GDP, trade deficits have grown.

From 1997 to 2006, the US trade deficit in manufacturing quadrupled from \$136 billion to \$559 billion.

But since 2006, the increase in manufacturing exports was a main cause for improving the US trade balance.

The trade deficit improved as a result of stronger durable goods exports, due to a weaker US dollar and strong demand abroad.



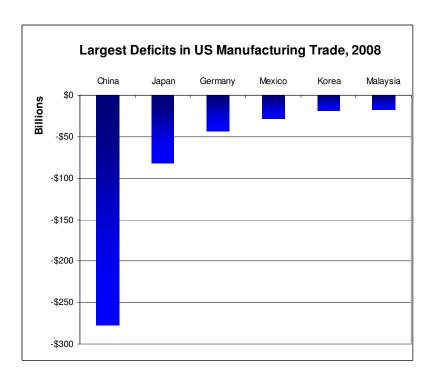
Breakdown of the Trade Deficit

The United States ran the largest trade deficits in manufactured goods with China, Japan, and Germany.

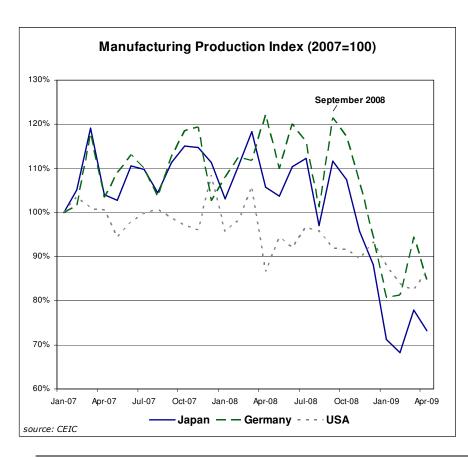
Although the US had the largest trade deficit with China, this is mostly due to China's new role as an export processor for all of Asia.

"America has a multi-lateral trade imbalance – not a bilateral problem driven by unfair Chinese competition. China has the largest bilateral piece of America's multilateral deficit – not because of the value of its currency but mainly because of conscious outsourcing decisions of US multinationals."

Stephen Roach Chairman, Morgan Stanley Asia



Manufacturing and the Current Crisis: Output in Freefall



The rapid decline in the global economy has damaged manufacturing production.

Demand for manufactured products has plummeted since September 2008, resulting in less production and more excess capacity. Export-oriented economies with weak domestic demand like Germany and Japan are witnessing the most rapid declines in production.

The Buildup of Excess Capacity

Excess Capacity in Chinese Industry March 2009	
Aluminum	30%
Cement and plate glass	20%
Semiconductors	70%
Steel	24%
Autos	22%

Source: Wall Street Journal

Excess capacity from the global recession builds on previous excess capacity.

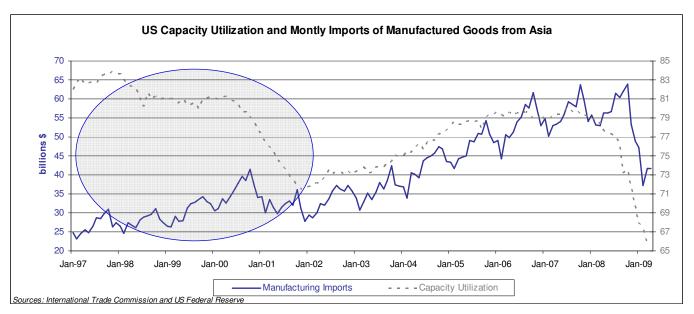
The recent surge in excess capacity in manufacturing and industry adds to the spare capacity that already existed in export-oriented economies.

Chronic excess capacity results from over investment and rapid productivity gains.

Productivity gains and prolonged investment booms in manufacturing are the main causes of systemic excess capacity. Excess capacity in manufacturing has undercut the pricing power of the industry.



Excess Capacity Damages US Manufacturing Disproportionately



During periods of excess global capacity, US manufacturing suffers disproportionately.

Rapid increases in productivity and excess capacity damages US manufacturing more than the manufacturing industries of our trading partners. From the Asian Financial Crisis to the collapse of the Tech Bubble (1997-2001), US manufacturing capacity utilization declined while imports of manufactured goods increased.

During global slowdowns, foreign manufactures have maintained or even increased capacity by tapping US demand, while domestic manufacturers have been forced to downsize.

A Strategy to Strengthen American Manufacturing

"It is possible to develop a more coherent manufacturing strategy that avoids the low road of lowering wages on the one hand or engaging in beggar-thy-neighbor protectionism on the other. Such a strategy would aim to lower the cost of doing business in the United States while providing companies with the essential things they need to be successful."

Sherle R. Schwenninger Realizing America's Economic Growth Potential: A Growth Agenda for the Abundant Economy

Make America More Competitive

- Rebuild America's infrastructure.
- Train skilled workers.
- Develop low-cost energy.

Level the Playing Field

- Increase global demand.
- Enforce US trade laws.
- Value the dollar fairly.

Lower Costs for Corporations

- Reduce the tax burden.
- Support investment.
- Provide universal health care.

Make America More Competitive

"[Manufacturing companies] depend on the ability to move goods throughout the country efficiently yet face transportation bottlenecks that cost industry nearly \$8 billion a year."

John Engler, President and CEO, The National Association of Manufacturers

Rebuild America's infrastructure.

New infrastructure would provide businesses with a foundation for higher-value added production and advanced business services.

Low-cost energy.

Cheap and reliable energy would reduce the costs for corporations. In addition to green energy investment, the US should expand the supply of natural gas, which is the principal energy source for American manufacturing.

Train skilled workers.

Job training would address high demand for skilled workers by establishing for-the-job training programs that would prepare workers for particular jobs and provide them training to transition into other industries.

Level the Global the Playing Field

Increase global demand.

Greater middle class consumption abroad would add to global demand, which would increase demand for American-made goods and services and relieve the burden on the US market to absorb the excess production of other economies.

Enforce US trade laws.

The US should use trade policy to protect American-based companies from unfair trade practices of mercantilist economies. In particular, it would deter supply surges and dumping of excess production during slowdowns in world economic growth, which occurred after the Asian Financial Crisis and is likely to occur now.

Fairly valued dollar.

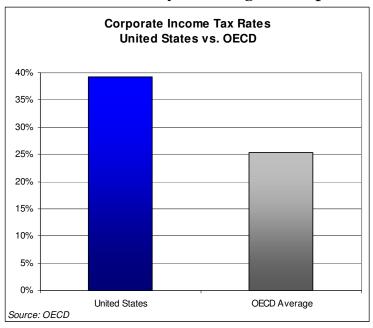
The US should trading partners to prevent the manipulation of the value of currencies to gain competitive advantage. Such an understanding should reduce the value of the dollar and make US exports cheaper and US imports more expensive, thereby reducing the US trade deficit and the competitive disadvantage currently facing Americanbased companies.

reach an understanding with its largest

Lower Costs for Corporations

Reduce the tax burden.

The US should lower the tax burden on companies locating investment and jobs in the United States by reducing the corporate

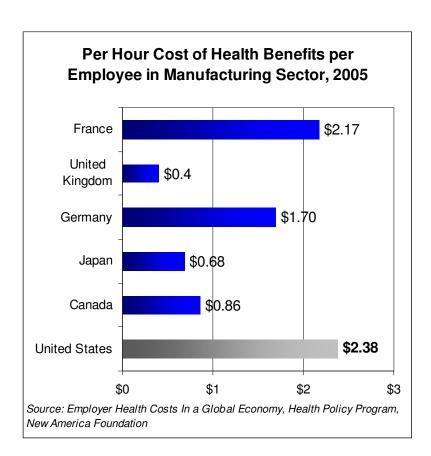


income tax and the payroll tax, thereby reducing the cost of capital and the cost of labor. Tax reform would also eliminate the current incentives in the tax code to move investment overseas. It would move to a VAT to replace the revenue. Of all taxes, the VAT is most friendly to manufacturing and would help level the tax playing field with America's trading partners.

Support investment.

To lower the barriers to entry, the government should provide financing provisions for small and medium size manufacturers to ensure access to capital for startup and expansion. In addition, the government should back loans for public-private R&D in the manufacturing industry.

Lower Costs for Corporations II



Provide universal health care.

Over time, a citizen-based health care reform program would relieve companies of the burden of rising health care costs and the administration of health insurance programs thereby reducing the cost of doing business.