April 26, 2011

The Case for a National Manufacturing Strategy

Presenters:
Dr. Robert D. Atkinson, President, ITIF
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Respondents:
Mark Rice, President, Maritime Applied Physics Corporation
Ro Khanna, Deputy Assistant Secretary, International Trade Admin.
Aric Newhouse, Senior Vice President, National Association of Manufacturers
Today’s Presentation

1. The State of U.S. Manufacturing
2. Why Manufacturing is Important
3. Why We Need a National Manufacturing Strategy
4. Outlines of a Strategy
U.S. Manufacturing: The Agriculture Story?
U.S. Manufacturing: Or the Rust Belt Story?

Flickr: Aphex Twin
Overall Manufacturing Grew Slower than GDP

Source: Bureau of Economic Analysis
And Most Manufacturing Sectors Shrank

15 of 19 manufacturing sectors shrank

Percentage Change in Real Value Added, 2000-2009

-400%
-300%
-200%
-100%
0%
100%
200%
300%
400%
500%

Total manufacturing

Source: Bureau of Economic Analysis

Food, beverage and tobacco products
Electrical equipment and appliances
Chemical products
Machinery
Printing
Wood products
Motor vehicles
Fabricated metal products
Paper Products
Primary Metals
Nonmetallic mineral products
Plastics and rubber products
Apparel and leather
Textiles
Furniture

THE INFORMATION TECHNOLOGY & INNOVATION FOUNDATION
Only Four Sectors Grew

Percentage Change in Real Value Added, 2000-2009

Average share of manufacturing output in 2000: 79%

Total manufacturing

Computer and electronic products: +260.5%
Petroleum and coal products: +73.0%

Average share of manufacturing output in 2000: 21%

Source: Bureau of Economic Analysis
Real Manufacturing Value-Added As Share of GDP

Source: Bureau of Economic Analysis
Real Manufacturing Value-Added As Share of GDP

Source: Bureau of Economic Analysis
Real Manufacturing Value-Added As Share of GDP

Source: Bureau of Economic Analysis
Real Manufacturing Value-Added As Share of GDP

[Graph showing the share of GDP contributed by real manufacturing value-added from 1987 to 2009, with different lines for categories such as Manuf, Durables, Nondurables, and Computers.]

Source: Bureau of Economic Analysis
Real Manufacturing Value-Added As Share of GDP
Real Manufacturing Value-Added As Share of GDP

Source: Bureau of Economic Analysis
Capital Stock For Many Manufacturing Sectors Has Fallen

Year of Peak Capital Stock and Percentage Decline Since

<table>
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<tr>
<th>Sector</th>
<th>Year of Peak Capital Stock</th>
<th>Percentage Decline Since</th>
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<tr>
<td>Primary metals</td>
<td>1981</td>
<td>-27%</td>
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<tr>
<td>Textiles</td>
<td>1997</td>
<td>-29%</td>
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<tr>
<td>Wood products</td>
<td>2000</td>
<td>-6%</td>
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<td>Apparel and leather</td>
<td>2001</td>
<td>-14%</td>
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<tr>
<td>Paper products</td>
<td>2002</td>
<td>-5%</td>
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<tr>
<td>Electrical equipment</td>
<td>2002</td>
<td>-3%</td>
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<tr>
<td>Plastics and rubber</td>
<td>2002</td>
<td>-2%</td>
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<tr>
<td>Food, beverage and tobacco</td>
<td>2002</td>
<td>-7%</td>
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<tr>
<td>Motor vehicles</td>
<td>2003</td>
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</table>

Source: Bureau of Economic Analysis
Overall Growth in Manufacturing Assets Has Stalled

Percentage Change in Fixed Asset Investment, by Decade

-50%  0%  50%  100%  150%  200%  250%  300%  350%  400%


-50%  0%  50%  100%  150%  200%  250%  300%  350%  400%

Manufacturing

Source: Bureau of Economic Analysis
Falling Behind Growth in Total Private Fixed Assets

Percentage Change in Fixed Asset Investment, by Decade

- Manufacturing
- Total private fixed assets
- Performing arts and spectator sports
- Funds, trusts, and other financial vehicles

Source: Bureau of Economic Analysis
As U.S. Moved from a Manufacturing to a Financial Engineering Economy

Percentage Change in Fixed Asset Investment, by Decade

- Manufacturing
- Total private fixed assets
- Performing arts and spectator sports
- Funds, trusts, and other financial vehicles

Source: Bureau of Economic Analysis
Today’s Presentation

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Why is Manufacturing Important?

1. Robust manufacturing sector needed to close the trade deficit.

Export Growth Required to Close Trade Deficit

- Services Exports
- Non-manufactured Goods Exports
- Manufacturing Exports

- Compound Annual Growth Rate, 2000-2010
- Compound Annual Growth Rate to Close Trade Deficit, 2010-2019
Why is Manufacturing Important?

2. Manufacturing is a key source of employment and good jobs.
Why is Manufacturing Important?

3. Manufacturing is a key source of R&D and innovation activity.

Percent of Companies Reporting Innovation by Industry
Why is Manufacturing Important?

4. Manufacturing and services are inseparable and complementary.
Why is Manufacturing Important?

5. Manufacturing is vital to U.S. national security.
Today’s Presentation

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Why We Need a Manufacturing Strategy

1. Other countries have manufacturing strategies.

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**The High-Tech Strategy**

*Goal 4: Innovator Japan – realizing a strong economy and industries creating innovation constantly:*

1. Realize a ubiquitous Internet society attracting global interest
2. Become the world’s top manufacturing nation
3. Enhance industrial competitiveness to win in global S&T competition

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**SCIENCE AND TECHNOLOGY**

**BASIC PLAN**

(Provisional translation)

MARCH 28, 2006

GOVERNMENT OF JAPAN

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THE INFORMATION TECHNOLOGY & INNOVATION FOUNDATION
Why We Need a Manufacturing Strategy

2. Systemic market failures affect manufacturing activity.
Why We Need a Manufacturing Strategy

3. Unlikely to get back key mfg. sectors once they're lost.
Today’s Presentation

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4. Outlines of a Strategy
What Should Washington Do?
Start Looking out for Number 6
- **Getting the 4 T’s Right**

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<th>Talent</th>
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Getting the 4 T’s Right

Supported by a National Innovation and Competitiveness Strategy
Thank You

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