

A presentation featured at the

2010 Topical Symposium:

Economic Security: Neglected Dimension of National Security?

Hosted by:

The Institute for National Strategic Studies

of

The National Defense University

24-25 August 2010

By

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August 24, 2010

Understanding Industrial Base Capability



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Office of Technology Evaluation (OTE)



MISSION:

OTE is the focal point within BIS for assessing:

- The effectiveness of export controls
- The capabilities of the U.S. industrial base to support the national defense



Leadership, Economic Strength

- ❖ U.S. leadership effectiveness globally is tied to economic performance to an extent
 - Affects countries' perceptions of the U.S.
 - Can limit U.S. options internationally

- ❖ A weak economic climate impacts U.S. ability to remain a manufacturing and technological leader
 - Capital investment restricted
 - R&D spending curtailed
 - Erosion of scientific talent & technical know-how

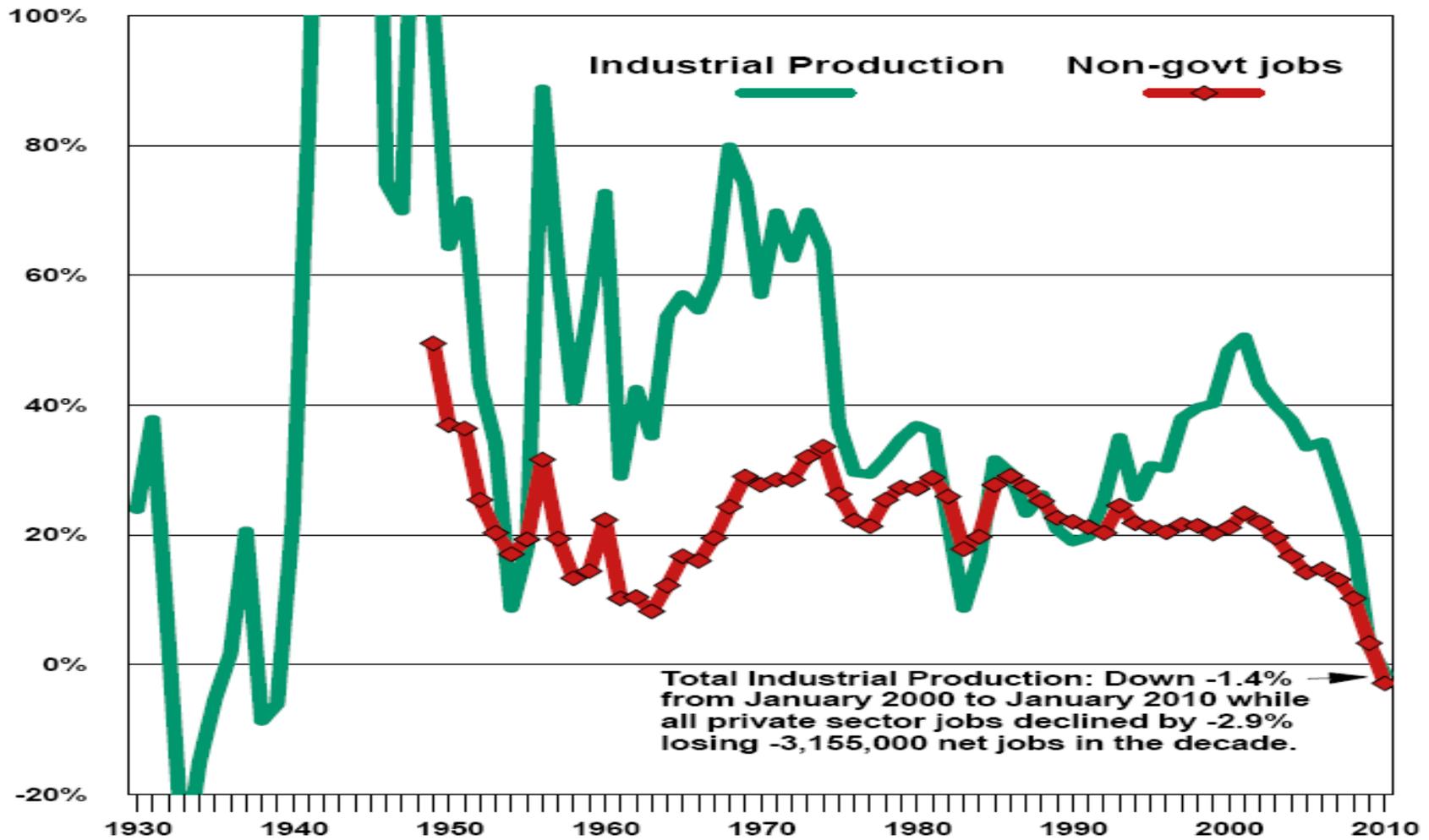


Industry - Government Cooperation: Essential to Economic, National Security

- ❖ Economic downturn of 2008-2009 undermined much of U.S. industry
- ❖ To maintain and strengthen the domestic industrial base, better information is required by industry and government to understand the:
 - Economic condition of industrial sectors
 - Status of manufacturing and technical capability
 - Ability to surge to meet national emergencies

First 10-yr Fall in Industrial Production Since 1929-'39

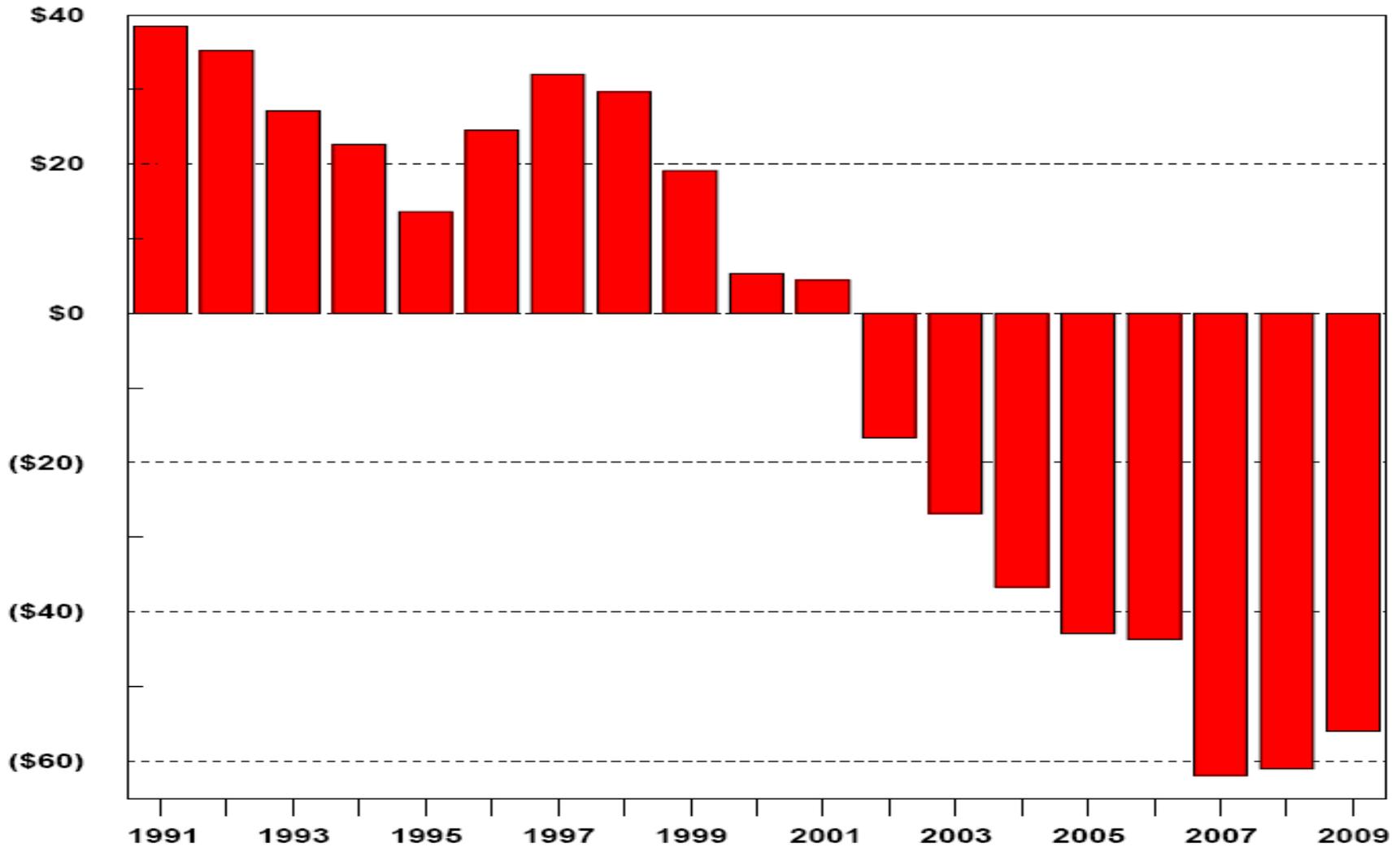
% change in industrial production: 10-years to January each year



Federal Reserve Board, BLS and MBG Information Services ©MBG Information Services

US Trade in Advanced Technology Goods

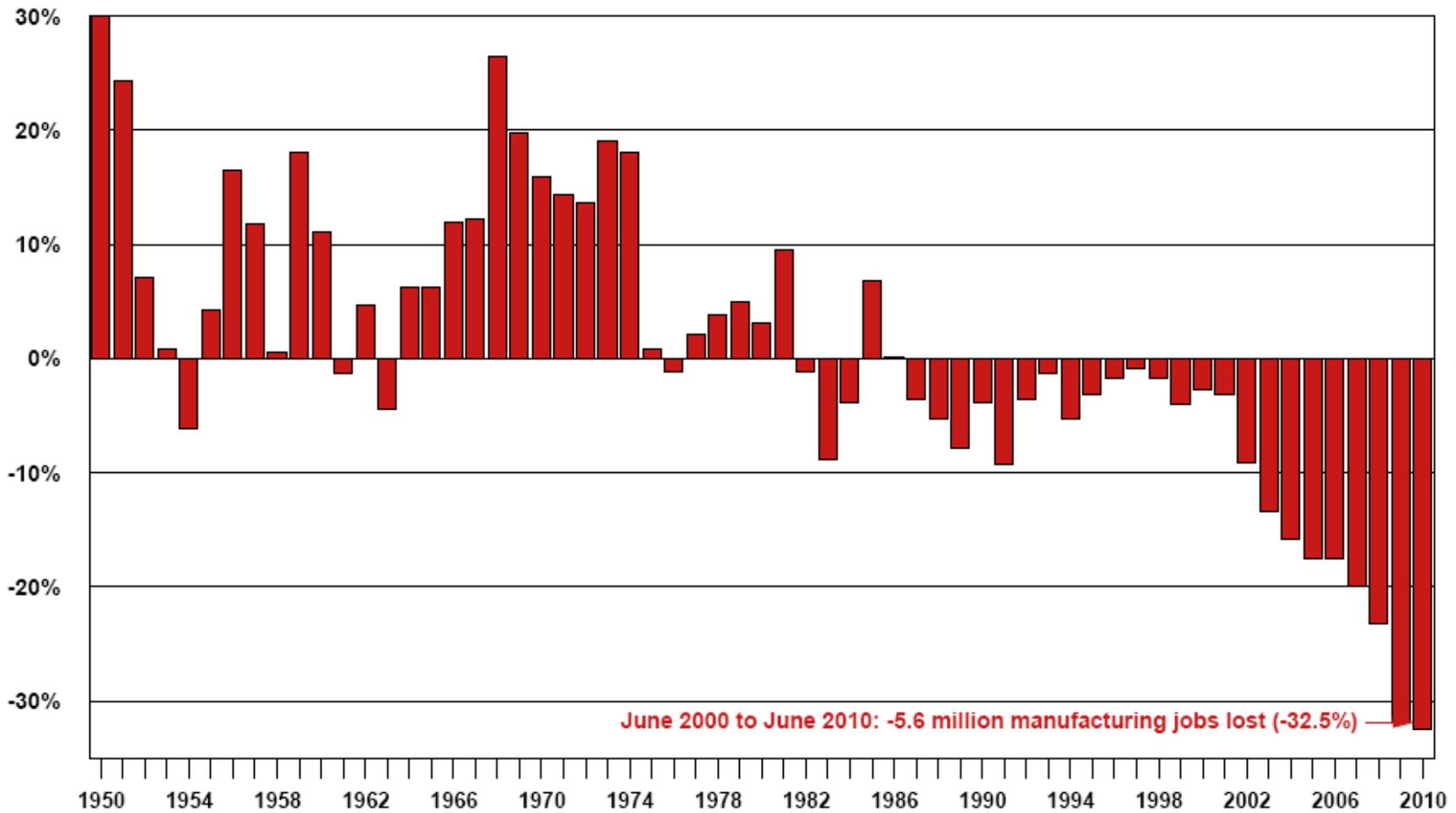
\$ Billion: Annual US Global Trade Balance in ATP



US Bureau of the Census and MBG Information Services

The Worst Ever 10-Year Plunge of Manufacturing Jobs

% US Manufacturing Job Growth or Loss: Ten Years Ending June Each Year





Industry- Government Cooperation

- ❖ Economic recovery can be assisted through increased industry and government interaction:
 - USG often needs to better understand the workings of industry sectors
 - Industry can benefit by engaging agency policy-makers, information resources, national labs
 - Inter-agency cooperation in industrial analysis
 - Enhanced dialog with companies regarding needs can better inform business and trade actions



OTE: Illuminating Key Issues

- ❖ Enabling industry and government agencies to:
 - Monitor trends and benchmark industry performance
 - Raise awareness of diminishing manufacturing and technological capabilities
- ❖ Identifying supply chain capabilities, erosion, vulnerabilities, and bottlenecks



OTE: Illuminating Key Issues

- ❖ Well-structured studies can identify capability thought to be greatly diminished
 - Integrated circuit production capability in the United States is larger than is recognized
- ❖ Surveys also can reveal supply chain problems that are unknown or poorly understood
 - Influx of counterfeit electronic parts
 - Supply vulnerability in critical batteries



Collaboration – Government, Industry

- ❖ OTE: Helping NASA, Suppliers to See the Future
 - Shuttle/Constellation Transition Impact
 - New Corporate Direction and Actions
- ❖ Surveying 1,300 + supplier companies (July 12)
 - Company information for 2007 to 2010
 - Cataloging types of parts and services provided
 - Mapping relationships of suppliers, competitors, NASA Customers



Collaboration – Government, Industry

- ❖ OTE: Working with Space Industrial Base Council
- ❖ Undertaking periodic assessments of the space industry's health and competitiveness
 - Reduce USG data collection redundancies (19 agencies)
 - Ease the burden on industry by consolidating USG surveys
 - Supporting National Space Policy annual report
- ❖ OTE: May act as the central repository for USG space industry supply chain data
 - Survey design and a 1st collection - late 2011



Collaboration – Government, Industry

- ❖ OTE: Critical Infrastructure Assessments
 - Tasked by the Dept. of Homeland Security to assess supply chain dependencies and vulnerabilities
 - OTE to perform a series of studies on supplier surge capability and related supply issues
- ❖ Initial Studies: Health Care, Dams, Transformers
 - Component production capability, limits, lead-times, warehousing levels, geographic factors
 - Vulnerabilities: labor issues, natural disasters, sole suppliers, transportation delays, etc.



OTE Industry Assessments

- Background

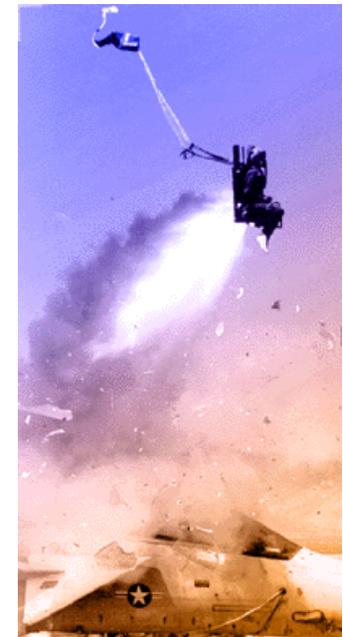
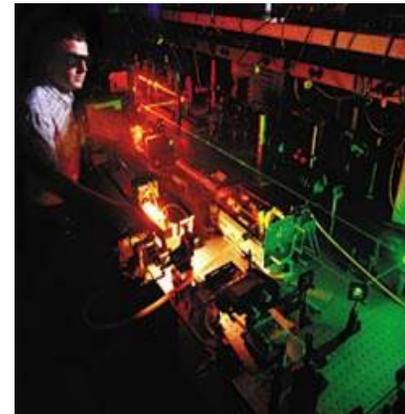
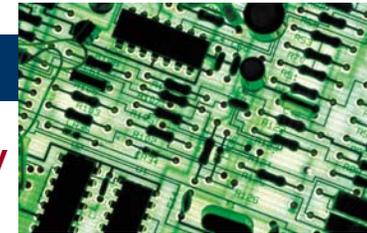
- ❖ Defense Production Act of 1950 and Executive Order 12656 provide broad authority to analyze:
 - Economic health and competitiveness
 - Defense capabilities and readiness
- ❖ Conduct surveys of industry and organizations



OTE Industry Assessments - Completed Assessments

Fifty industry studies and more than 150 survey instruments to date:

- ❖ Counterfeit Electronics
- ❖ Defense Microchips
- ❖ Machine Tools
- ❖ Imaging and Sensors
- ❖ High Performance Explosives
- ❖ Optoelectronics
- ❖ Ball and Roller Bearings
- ❖ Shipbuilding and Repair
- ❖ Munitions Power Sources
- ❖ Cartridge and Propellant Actuated Devices





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