CHEMISTRY & SHALE GAS: FUELING A U.S. MANUFACTURING RENAISSANCE
PROMOTING POLICIES TO DRIVE A MANUFACTURING RENAISSANCE


GLOBAL SUPPLY (billion lbs.)

2012 ESTIMATED PRODUCTION COSTS* ($/lb.)

HIGH

LOW

MIDDLE EAST

UNITED STATES IN 2012

CHINA

WESTERN EUROPE

OTHER NORTHEAST ASIA

RELATIVE POSITION OF UNITED STATES IN 2005

*Based on estimates from best available data
Shale Boom Driving New US Investment
North American Competitive Advantage Sustained through 2020

- Affordable, competitively priced natural gas is driving significant new capital investment in the US manufacturing sector

- Long-term, sustained opportunity in feedstock supply and cost

- Some of the new capacity is result of new foreign-direct investment in US

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U.S. Shale Gas

- U.S. has a 30-year supply of natural gas that can be profitably produced at $4.00 per million BTUs or less
- America’s chemical industry is benefiting from lower costs for energy and feedstock

Chemical Investment

- 127 projects and $85 billion in potential capital investment announced as of Sept. 19, 2013
- Up from 97 projects and $72 billion as of March 2013
- 54% is by firms based outside the U.S.

IHS data

ACC data
ETHYLENE CHAIN

- Natural Gas
  - Ethane
  - Cracker

Intermediate Products
- PVC
- Vinyl Chloride
- Ethylene Glycol
- Styrene
- Polystyrene

- Pool Liners
- Window Siding
- Trash Bags
- Sealants
- Carpet Backing
- Insulation
- Detergent
- Flooring
- Pipes

- Food Packaging
- Bottles
- Cups
- Housewares
- Crates

- Footwear
- Clothes
- Diapers
- Stockings
- Toys
- Textiles

- Tires
- Sealants
- Paint
- Antifreeze

- Adhesives
- Coatings
- Films
- Paper Coatings
- Models
- Instrument Lenses
ACC Study: Economic Contributions from Increased Chemical Industry Investment

537,000
Permanent NEW jobs by 2020 throughout the U.S. economy from higher chemical industry output

$201 billion
Permanent NEW U.S. economic output by 2020 from $67 billion in new chemical industry output

A $3.2 BILLION investment in an ethylene production complex will generate $7.9 BILLION in additional chemical industry output, bringing the state’s industry revenues to more than $31 BILLION and making it the country’s 8th largest chemical producing state.

More than 17,000 permanent jobs will be created in the chemical industry and throughout the supply chain in everything from trade and craft jobs to highly-skilled knowledge workers.

More than $1.2 BILLION in wages will go into the pockets of Pennsylvania workers, generating more than $140 MILLION in state tax revenue and more than $240 MILLION in federal revenue.
Why Pennsylvania?

10th largest chemical producing state in the U.S.

- Considerable shale gas deposits
- Access to the Great Lakes
- Within 500 miles of U.S. industrial base
- Excellent universities
- Major rail systems

$23 billion in revenue and nearly 43,000 Pennsylvania jobs
Policies Needed to Realize Shale Gas Potential

Key Policies

- **Access**: Allow access to natural gas reserves on government and private lands

- **Infrastructure**: Ensure reliable infrastructure to transport supplies

- **State Regulations**: Implement responsible state-based regulations that avoid undue restrictions on natural gas supplies

- **Tax Treatment**: Maintain accelerated depreciation in tax policy. Minimize cost and reduce complexity for businesses

✓ Restrictive policies and regulations would lead to less energy production

✓ U.S. would miss out on economic benefits from expanded supplies

✓ As many as 289,000 potential U.S. chemistry jobs would be lost

✓ $46 billion in potential economic growth would be lost by 2025

U.S. Chemical Investment is Outpacing Other Regions

- U.S. chemical industry is poised to capture market share from around the world
- North American chemicals and plastics production will double by 2020 while Western Europe’s falls by 1/3
- No other region has this long-term advantage in natural gas and feedstock supplies

Data provided with permission from IHS
Fueling Export Growth
American Chemistry

- $188 billion in annual exports
- 12% of all U.S. exports
- 200,000 chemistry jobs are export dependent

58 billion in additional jobs and export growth potential
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