December 1, 2005

To the Legislative Council:

Accompanying this letter is the IEDC's 2005 Annual Report on the Indiana steel industry to the Indiana General Assembly.

The Indiana steel industry has reached a position of relative strength and stability after a period of uncertainty and turmoil. Nevertheless there are still challenges. Rising energy costs, increasing prices for raw materials, and intense international competition pose a series of challenges to the United States steel industry, despite the healthy market for steel products from the United States.

Several proposals have been made by steel industry advocates for making the industry stronger in Indiana and giving it a greater presence abroad. These are addressed in this report and include:

- A single-sales factor for corporate taxes, making Indiana competitive with neighboring states which already use this method.
- Designating more of Indiana's roads "extra heavy highways" to accommodate the transportation of steel to customers and markets.
- A bounty which encourages the removal of mercury components in cars before they are used for scrap metal.

More broadly, the regulatory and tax policies of the State of Indiana have important implications for Indiana's steel industry.

A business-friendly posture on both counts is necessary for the continued success of Indiana's steel companies. The administration's Major Moves transportation investment proposal, the creation of the Northwest Indiana Regional Development Authority, and other important regulatory changes made to date provide a more conducive climate for Indiana's steel industry to prosper.

This 2005 annual report addresses these and other issues pertinent to the Indiana steel industry.

Regards,

Patricia Miller
Secretary of Commerce

INDIANA STEEL INDUSTRY

2005 ANNUAL REPORT

TO THE INDIANA GENERAL ASSEMBLY

BY THE

INDIANA ECONOMIC DEVELOPMENT CORPORATION

www.iedc.in.gov
Introduction

In the early 1900's, steel was royal in Indiana. Steel was massively produced in order to meet the mounting needs of new homes, new buildings, and railroad tracks. The United States Steel Company searched the United States to find a place for a new steel mill and settled upon the sand dunes on Lake Michigan. Northwest Indiana was ideal as it provided access to waterways and to railroads. Steel was one of the primary sources of employment and income in Northwest Indiana. The history of cities like Gary and East Chicago has been directly intertwined with the history of the steel industry. The automotive industry capitalized on the massive production of steel at cheap prices. Indiana became a center of the automotive industry with more than forty cities producing automobiles under the names Studebaker Company, the Cole Motor Car Company, Stutz Company, International Harvester, and many others.

In 1969, steel mill employment accounted for 30 percent of all employment in Northwest Indiana, with a total steel output of $70.9 billion.[1] Over the years as competition increased nationally and internationally, the prominence of steel in Indiana began to decline. By 1998, steel employment in Northwest Indiana was a mere 8 percent of total employment, with a total steel output of $37.6 billion. Amidst the bankruptcies of such steel giants as Bethlehem, National, and LTV in the early 2000's, Indiana steel purged inefficiencies and consolidated. While today steel mammoths Mittal Steel and U.S. Steel have prominence in Northwest Indiana, other steel companies have sprung up throughout Northeast, Central, and Southern Indiana. Turning to innovation and sophisticated technology, SDI Inc., AK Steel, and Nucor have established a profitable niche in the industry.

As competition continues to increase, sustained capital investment is necessary to keep Indiana's steel industry competitive. Although overall employment in this industry may continue to trend downward due to continued technological advancements, there has been a leveling off in the decline in employment. As long as there is a healthy demand for steel, the Indiana steel industry should remain competitive. Though no longer king, the steel industry is likely to prosper throughout Indiana and provide jobs and community investment.

This paper provides an overview of the current state of the Indiana steel industry, its challenges, and its prospects. In early 2005, the Indiana legislature created the Indiana Economic Development Corporation (IEDC) and transferred the duties and powers of several governmental organizations to the IEDC. One of these groups was the Steel Industry Advisory Commission. The statute that created the IEDC adopted the language of the statute creating the Steel Industry Advisory Commission. That statute requires an annual report to the legislative council on the Indiana steel industry[2]:

[1] Coffin, Donald A. (2003). The State of Steel. [Electronic Version]. *Indiana Business Review*. Spring, Volume 78, Number 1. http://www.ibrc.indiana.edu.

[2] The most recent report was issued in February 2004 under the title "The 2003 Annual Report to the Indiana General Assembly by the Indiana Steel Advisory Commission." http://www.indianacommerce.com/publications/uploads/Steelreport.pdf

Chapter 12. Steel Industry

Sec. 1. The corporation shall conduct an examination of:

(1) Indiana and federal statutes, rules, and regulations that either encourage or discourage production and consumption of Indiana steel;

(2) The problems currently faced by the Indiana steel industry, including foreign competition and the economic climate for the steel industry in Indiana; and

(3) Any other matters considered relevant to the future of the steel industry in Indiana.

Sec 2. (a) The corporation shall conduct appropriate studies and present an annual report to the legislative council and a summary letter to the general assembly through the legislative council not later than December 1 each year. The report must address the following issues:

(1) Ways in which the use of Indiana steel can be expanded in Indiana and the world;

(2) Ways in which any additional problems included in the examination conducted under section 1 of his chapter may be remedied;

(3) The modification, if any, of state statutes or rules.

This report will follow the organization proposed by the Indiana legislature. Accordingly, this report is broken down into the following topics:

I. Review of Relevant Indiana and Federal Statutes, Rules, and Regulations

II. Foreign Competition and Economic Climate

III. Future Outlook of the Indiana Steel Industry

IV. Conclusion

Appendix: Profiles of Current Indiana Steel Companies

Resources

I. Review of Relevant Indiana and Federal Statutes, Rules, and Regulations

Background on Steel Production

There are two main types of steel mills: (1) electric arc furnace and (2) integrated. One of the least costly methods of producing steel is using scrap metal from old cars, appliances, and bridges and melting the scrap in an electric arc furnace, converting it to molten steel. At an integrated mill, iron ore is reduced to molten pig iron and then sent to oxygen furnaces where it is combined with scrap and made into molten steel.[3] Although the steel produced by an integrated mill is usually of higher quality, electric arc furnace mills need a smaller amount of capital investment for initial operation and are cheaper to operate. Other participants in the steel industry are companies that convert semi-finished steel into steel wire, pipe, bars, rods, and sheets. Some companies finish the steel to have a certain appearance by using paints and chemicals, and other companies produce alloys by adding silicon or manganese to steel.

Several state and federal statutes, regulations, and policies affect the Indiana steel industry.

Indiana Statutes and Regulations

Corporate Income Tax

Indiana's corporate income tax has an apportionment formula based on a company's payroll, property, and sales. The break down is 25 percent on payroll, 25 percent on property, and 50 percent on sales. (Kentucky's tax has the same weighting for C corporations.) AK Steel, Steel Dynamics, and U.S. Steel are part of the Indiana Single Sales Factor Coalition (ISSFC) with fifteen other companies. The Coalition proposes that corporate income tax apportionment be based on sales alone. With this formula, the income tax would be based only on the percentage of sales within the state.

This issue is not a steel issue per se but a manufacturing issue. Retailers dislike the idea because it would be a detriment to them. The Single Sales Factor Coalition argues, however, that this type of tax would make Indiana more competitive with other states and would encourage businesses to invest or expand by removing the tax penalties of payroll and property. Currently, sixteen states have adopted a single sales factor. States surrounding and near Indiana have adopted the following apportionment formulas:

Illinois: 100% Sales

[3] For purposes of Indiana tax valuation, an "integrated steel mill" means a person that produces steel by processing iron ore and other raw materials in a blast furnace in Indiana." P.L. 228-2005, Section 2(a)(2).

Ohio: 100% Sales
Michigan: 90% Sales
Wisconsin: 100% Sales
Minnesota: 100% Sales
Iowa: 100% Sales
Missouri: 100% Sales
Texas: 100% Sales

A single sales factor would reduce taxes for businesses with high in-state employment and investment but only moderate sales, and increase taxes for companies with little in-state presence but with a greater proportion of in-state sales. This result has led some national corporations to support the single-sales-tax concept in states where they have major production facilities and to oppose the same concept in states where they have extensive sales.

Austan Goolsbee and Edward Maydew, two economists from the University of Chicago, conducted a study on the single sales factor titled "Coveting Thy Neighbor's Manufacturing: The Dilemma of State Income Tax Apportionment." In their study, they concluded that states that reduced the payroll factor increased manufacturing employment by an average of 1.1 percent. Naturally, were the single sales tax factor to be put in place, the state would experience a loss of revenue from the payroll and property factors, but proponents of single sales tax argue that new investment, employment, and attraction of new businesses would more than make up this loss.[4]

Property Tax

Another large cost for the steel industry is property taxes. In 2003, House Bill 1858 was passed and the state reassessed property values across the state. An impact of the law was to permit companies to depreciate personal business property (equipment) up to 90 percent rather than the previous 70 percent. In exchange, companies gave up the right to claim future "abnormal obsolescence," on which basis they had withheld a large part of their past tax payments. Prior to the passage of H.B. 1858, U.S. Steel's Gary Works, according to the company, was the most highly taxed industrial facility in the country, costing the company $70 million/year paid to Lake County. The tax burden was so great that the U.S. Steel was planning to curtail its investment in Gary. Nor was U.S. Steel alone. The BP refinery in Whiting (also in Lake County) paid a higher tax rate there than at any of its five other plants in the country.

Following the passage of H.B. 1858, U.S. Steel announced an investment of $300 million for a gas furnace in its Gary operation–a move that the corporation probably would not have taken had the prior property tax structure continued.

H.B. 1858 remains controversial in Lake County because it is blamed for escalating personal property taxes.
On May 12, 2005, Senate Bill 327 was enacted. This bill, which has become Public Law 228-2005, restricts the property tax valuation provided in H.B. 1858 to equipment in integrated mills

[4] Single Sales Factor for Corporate Income Taxes. (August 2000). *Wisconsin Briefs.* Legislative Reference Bureau. Brief 00-10. Prepared by Richard Roe, p. 3.

that produce steel "in a blast furnace in Indiana." (In contrast, H.B. 1858 covered all steel mills, regardless of whether they had an Indiana blast furnace.) The new law apparently applies to only one steel mill in Indiana: AK Steel's plant in Spencer County, which has its blast furnace out of state.[5]

Weight Restrictions on Roads

The steel industry values a transportation system that will allow companies to transport the optimal amount of steel and efficiently reach their markets. The rail system at one time was integral to moving steel and steel products. Currently, the rail system does not cater to the Indiana steel industry and has major infrastructure weaknesses. Therefore, the Indiana steel industry relies on the road system for transportation. Certain consumers of steel products favor heavier and stronger models of steel. Others prefer to order larger loads (e.g of uncut coil). Steel companies also wish to minimize the number of trips in transporting steel, particularly when the destination is out of state. Canada, for instance, is an important market for Indiana steel because there are no structural steel producers in Canada.

According to Indiana Code 9-20-5-2, the following are the maximum weight limits on heavy duty highways in Indiana.

> Sec. 2. Whenever the Indiana department of transportation designates a heavy duty highway, the department shall also fix the maximum weights of vehicles that may be transported on the highway. The maximum weights may not exceed the following limitations:
>
> ….
>
> (3) The total gross weight, with load, in pounds of a vehicle or combination of vehicles may not exceed eighty thousand (80,000) pounds.
>
> IC 9-20-5-5 Designation of heavy duty highways; conditions
>
> Sec. 3. The Indiana department of transportation may not designate an Indiana highway as a heavy duty highway unless the department determines that the highway is:
> (1) so constructed and can be so maintained
> (2) in such condition;
> that the use of the highway as a heavy duty highway will not materially decrease or contribute materially to the decrease of the ordinary useful life of the highway.
>
> IC 9-105-5 Maximum size and weight limitations; extra heavy highways
>
> ….
> (4) The total gross weight, with load, of any vehicle or combination of vehicles may not exceed one hundred thirty-four thousand (134,000) pounds.

[5] An intricate discussion of the financial impact of this statute may be found in the Fiscal Impact Statement filed by the Legislative Services Agency on May 5, 2005, pp. 10-11. See: http://www.in.gov/legislative/bills/2005/PDF/FISCAL/SB0327.008.pdf .

In other words, almost all Indiana state roads have a maximum weight limit of 80,000 pounds per load. A few roads are designated "extra heavy" for accommodating loads up to 134,000 pounds. In addition, like all federal highways, I-69 has an 80,000 pound weight limit.[6]

The 80,000 pound limit is controversial in the steel industry. Although portions of the Indiana highway system have been designated as "extra heavy" for loads between 80,000 and 134,000 pounds, some steel companies cannot access these roads. Only in 2004 did the general assembly grant Steel Dynamics access on US 6 to State Road 9, from US 30 to State Road 9, and State Road 9 to US 30 to obtain assess to Ohio from its Butler operation.

Michigan has a grandfathered 164,000 lbs. maximum weight on part of its road system, leaving Indiana at a comparative disadvantage.[7] Although, Michigan's roads aid industries with large truck loads, the high tonnage is taking a toll on the quality and sustainability of the roads.

Clearly this issue requires balancing. As advantageous as laxer weight restrictions would be to the steel industry, they would entail greater wear and tear of the road system and might increase the sense of obtrusiveness towns and small cities experience along the routes.

The Legal Complications of Mercury Switches

Many steel manufacturers primarily use electric arc furnace mills or mini mills. These mills make steel from scrap metal found in junked cars, demolished buildings, and old appliances. Using scrap metal from cars poses an environment hazard. Vehicles usually have several components containing mercury: switches (the hood and trunk), sensors, light switches, navigational systems, and anti-lock brakes. Switches are the chief component with mercury. The process of shredding the metal, compacting it, and melting it releases mercury into the air, which then precipitates. This process is blamed for, among other things, the continued high mercury content in fish from Lake Michigan. Mercury is highly toxic–so much so that the Indiana Department of Environmental Management has a Mercury Awareness Program (http://www.state.in.us/idem/ctap/mercury/index.html). (See also this page about mercury emissions from scrap metal processing: http://www.in.gov/idem/air/workgroups/mercury/oct04/non_egu.html.) Once a car is crushed or shredded, mercury removal is impractical if not impossible. So the mercury must be removed by taking out the switches before the metal is effectively recycled.

The issue for the steel industry is cost. Removal cost is $3 per switch. The Steel Manufacturers Association (SMA) supports:[8]

- Eliminating mercury in automobiles and other products used for scrap metal

[6] Code of Federal Regulations, Section 658.17(b) (2005). Appendix C to Part 658 provides certain exemptions. http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&%3C?SID%3E&rgn=div5&view=text&node=23:1.0.1.7.32&idno=23#23:1.0.1.7.32.0.1.10
[7] Heinlein, Gary, "Hefty Trucks Take Toll on State Highways," *Detroit News.* (October 16, 2005).
[8] *2005-2006 Public Policy Statement.* Steel Manufacturers Association (2005). p. 20.

- Educating and training of scrap suppliers and savage yards to increase removal rates of mercury-containing materials
- Creating financial incentives to compensate scrap suppliers for mercury removal
- Developing a mechanism to remove mercury or collect switches

In Indiana, no one is responsible for removing mercury components. Other states have different approaches. Arkansas, Maine, New Jersey, North Carolina, and Rhode Island have bounty programs, a rebate to companies that remove the mercury. In Maine, junkyards and automotive recyclers are required to remove automotive fluids, refrigerants, batteries, and mercury switches within 180 days of arrival. If the vehicle identification number is provided, the state increases the bounty. In New Jersey, a switch removal program cost $1.5 million for 500,000 vehicles shredded for scrap metal. Pennsylvania adopted a two-year, $341,000 program to train recyclers and provide incentives for removing mercury. Other states (e.g. Wisconsin, Michigan, and Connecticut) provide guidance on removal, but do not supply incentives.[9]

For integrated steel mills (i.e. those that do not use scrap metal), mercury switch removal is not an issue.

Steel companies that use electric arc furnaces are concerned that they may eventually be made responsible for removing mercury switches and other components that contain mercury. The cost would be significant. Most steel companies would rather have car companies bear the cost–a suggestion auto manufacturers understandably resist. Some in the steel industry recognize, however, that making auto companies bear the expense might weaken the financial strength of one of the leading buyers of steel.

The resolution of this issue in Indiana has yet to be decided. A bounty program, embraced by some in the industry, may be worth exploring in Indiana. Eventually the problem will abate on its own. The auto industry, foreign and domestic, has been phasing out the use of mercury switches since the mid-1990's. United States car manufacturers discontinued the use of mercury switches for new models beginning in 2003,[10] although the problem will take years to diminish significantly.[11]

Great Lakes Annex 2001

In the process of making steel, steel manufactures must have access to a large supply of water. Water is used to cool the steel after production and to cool the machinery that shapes newly-formed steel. Companies in Northwest Indiana have access to the Great Lakes. Other companies have access to water basins, rivers, etc. The following issue applies to the steel industry on the Great Lakes.

[9] Commissioner Easterly's presentation to the EQSC (July 2005).
[10] See the page "Mercury Reduction Program" maintained by the Wisconsin Department of Natural Resources: http://www.dnr.state.wi.us/org/caer/cea/mercury/program.htm .
[11] "Mercury in Vehicles Update," Ecology Center (April 2004). http://www.cleancarcampaign.org/Mercury_April_2004.pdf

The Great Lakes contain 20 percent of the world's supply of freshwater. To protect the supply for the future, the Council of Great Lakes Governors has proposed a plan known as Great Lakes Annex 2001. The plan is intended to update the Great Lakes Charter of 1985, which limited diversions of Great Lakes water. The Council is comprised of governors from the eight states bordering the Great Lakes (including Indiana) plus the premiers of the Canadian provinces of Ontario and Quebec. To be binding, all eight states, both Canadian provinces, and Congress must approve the plan.

This issue is critical for much of Indiana's steel industry because several key facilities (e.g. Gary Works) draw water directly from Lake Michigan. Moreover the Great Lakes basin extends beyond the lakes. Hence steel companies may be affected even if they are not on the lakes per se.

The most recent iteration of the plan, released on November 10, 2005, bans diversions of water from the Great Lakes with limited exceptions.[12] "Diversions" are defined so as not to include "[w]ater that is used in the [Great Lakes] Basin or a Great Lake watershed to manufacture or produce a Product that is then transferred out of the Basin or watershed."[13] Since the steel industry uses water and then transfers the water back to its original source, that use is not considered a diversion. State statutes, federal statutes, congressionally-authorized interstate compacts, and a treaty would all likely be required to put this plan into action. The Daniels administration is currently reviewing the draft good-faith agreement, which is scheduled to be signed on (or rejected by) December 13, 2005, at the Council of Great Lakes Governors' Leadership Summit in Milwaukee, Wisconsin.

Environmental Permits

In order to expand facilities, steel companies must apply for environmental permits for water and air. According to a representative from U.S. Steel, every time a new piece of equipment is added, even if the process is merely being streamlined, new permits for air must be filed since the new equipment could affect emissions. Consequently, the IDEM permitting process impacts a steel company's ability to invest capital and expand. By all accounts, under the Daniels administration IDEM has sped up the processing of permits and has become more responsive and helpful to those seeking its assistance. Hence this issue, which used to limit the use of new and improved equipment at Indiana steel mills, is now largely dormant as a concern.[14]

Federal Statutes and Policies

[12] The draft compact (which would be passed into law) is available at: http://www.ecobizport.com/AnxCompact111005Draft.pdf . The corresponding Agreement (which is a good-faith understanding among the states and provinces) is available at: http://www.ecobizport.com/AnxAgreement111005Draft.pdf .
[13] Compact, ibid. at p.2. See also the "Exceptions Standard" established in section 4.9.4 (p.17).
[14] IDEM's change in philosophy is outlined in the PowerPoint presentation "IDEM's Transition" (Bruce Palin, IDEM Deputy Assistant Commissioner) (March 2005). http://www.lmawma.org/2005WasteConf/Palin.pdf

Energy

The steel industry relies heavily on electricity and other forms of energy. According to the steel industry, the lack of a coherent federal policy to increase the supply of energy has led to drastically higher energy prices, which have disproportionately raised the operating expenses of steel mills. These cost increases have made the steel industry in the United States as a whole–not merely in Indiana–less competitive with the rest of the world. According to the Steel Manufacturer's Association (SMA), the entire steel industry spends over $2 billion/year for electricity.[15] A particular example of the impact of energy prices on the steel industry is that of Mittal Steel. Mittal is North America's largest buyer of natural gas. Recent price surges have increased Mittal's costs by $600 million.

Therefore the steel industry would welcome federal efforts to increase the nation's energy supply in order to lower production costs and allow the industry to be more internationally competitive.

Tax

The United States is one of the world's leading importers. According to the World Trade Organization, the United States takes in 16 percent of the world's total imports.[16] The SMA argues that the United States penalizes itself by relying on a direct tax system while other industrial nations (e.g. those in the European Union) have a value-added tax system which can be imposed on imports. SMA favors a tax system in which a firm would pay "a tax only on the net value of goods sold, minus the goods purchased."[17] Therefore, a full value-added tax would be imposed on imported goods on entry to the United States. When goods are exported from the United States, United States exporters would get a rebate of the value-added tax. The SMA's position, however, is controversial even in the steel industry because of the complexities and problems involved with value-added taxes.

Trade Policy

Many factors influence worldwide competition in the steel industry: operational efficiency, governmental policies, access to transportation, costs, etc. These are inherently unequal. For example, the price of iron ore is $5/ton in Romania and $83/ton in the U.S.[18] A variety of political issues and trade policies complicate the United States steel industry's ability to compete.

In the early 2000's, the U.S. steel industry confronted artificially cheap steel imports that flooded into the United States due to foreign subsidies and undervalued currencies. Several steel companies went bankrupt, and there was massive consolidation. The result is a stronger industry that is far more stable than it was just a few years ago. New steel giants have emerged in

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[15] *2005-2006 Public Policy Statement*, op.cit., p. 16.
[16] World Trade Organization, International Trade Statistics, U.S. profile, www.wto.org
[17] *2005-2006 Public Policy Statement* Op. Cit. p. 14.
[18] Meeting Minutes of the Indiana Commission on State Tax and Financing Policy (October 13, 2005), p. 3 (citing information presented by Gui Aus of Mittal Steel USA).
http://www.in.gov/legislative/interim/committee/minutes/STFP8AD.pdf

European-based companies Mittal and Arcelor with operations in Asia, Europe, North America, South America, and Africa.

The European Union is one of the United States' largest competitors in steel production. Thus far in 2005, the United States has incurred a merchandise trade deficit of $706 billion while the European Union is running a trade surplus of $92.5 billion. The SMA argues that the European Union is not more competitive than the United States in world markets but manages better access to Asia and other European countries and favors trade policies that protect their steel industry. From 1994-2004, the U.S. imported 322 million tons of steel while the European Union imported only 216.5 million tons. Although the U.S. exported 8 million tons of steel in 2004, it imported 33.4 million tons.[19]

Another large issue for the steel industry regarding trade policies is currency undervaluation. Since 2001, the dollar has declined 35 percent against the Euro but has declined far less among such major Asia currencies as those of China and Japan. In order to keep their currencies below market levels, these countries have bought dollars and invested in U.S. Treasury bonds to keep the dollar at a higher value. The undervaluation of the China yuan allows Chinese products to undersell those of the United States. This "currency manipulation," as it has been dubbed in the United States, makes Chinese exports less expensive and imports to China more expensive. Although there was a slight upward valuation in the yuan in the second half of 2005, it was so small that it affected none of the present dynamics. In order to offset this unnatural advantage, the SMA argues that the dollar needs to fall lower or, conversely, for Chinese currency to rise above its artificially depressed value. (The SMA's argument on this issue may be found at the following site:
http://waysandmeans.house.gov/hearings.asp?formmode=printfriendly&id=2898 .)

Other steel industry officials downplay the importance of currency undervaluation, at least as it affects the U.S. steel industry now. While China produces 26 percent and consumes 27 percent of the world's steel[20]–thus being the largest market in the world–it consumes most of what it produces. This situation is likely to continue at least in the short term. Chinese steel imports to the U.S., according to these officials, are too small to threaten the U.S. steel industry at present. Yet imports of Chinese standard pipe ballooned by over 2600 percent from 2002 to 2004.[21]

The Steel Caucus, a bipartisan group of members of the U.S. House of Representatives, has led several discussions and hearings on the status of the steel industry. Various Indiana congressmen have been active on this issue. Representative Pete Visclosky and Representative Mike Pence have both been before the International Trade Commission to discuss the Indiana steel industry. The International Trade Commission has been reviewing antidumping and countervailing duties on stainless steel sheet from France, Germany, Japan, the United Kingdom, Taiwan, and other countries.

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[19] *2005-2006 Public Policy Statement (*2005). Op. Cit., pp. 7-12.
[20] "Promoting participation of developing countries in dynamic and new sectors of world trade: Steel and related specialty products" (United Nations Conference for Trade and Development) (September 12, 2005), p.10, Table 6. http://www.unctad.org/en/docs/c1em28d4_en.pdf
[21] "Visclosky to Bush: Stop the Outsourcing of American Steel Jobs to China" (press release of Congressman Pete Visclosky) (December 1, 2005). http://www.house.gov/apps/list/press/in01_visclosky/Pipe_Tube.html

Representative Pete Visclosky of the 1st district urged extending the Steel Import Monitoring Program in order to protect the United States steel industry from trade polices that dump steel into the United States due to large foreign government subsidies.[22] He suggested that the steel workers in Northwest Indiana are vulnerable when steel is sold below market in the United States.[23] In April 2005, the International Trade Commission announced that the Steel Import Monitoring Program would be extended to Brazil, Japan, and Russia and that anti-dumping duties would be continued.

Congressman Mike Pence of the 6th district has a different perspective. Years ago, he testified in favor of duties on imported steel. But in early 2005, he spoke in favor of eliminating them. His argument was twofold. First, the steel industry has substantially recovered from its weak position of a few years ago. Second, import duties lead to higher prices and those higher prices raise the costs of many other industries and are often passed on to the consumer. Indiana has multiple industries, not merely the production of steel. Higher steel prices put pressure on every industry that depends on steel, including car manufacturing and the making of auto parts. Two auto supply manufacturers, Dana Corporation and ArvinMeritor, have plants in Pence's district. Higher costs of production (including steel) have put these and other suppliers in jeopardy.[24]

Since a trade tariff on the steel industry was removed in 2003, the United States steel industry has shown robust signs of growth. This turnaround is timely because China's steel consumption is set to increase by 10.7 percent as industrialization efforts continue. According to the Organisation for Economic Co-operation and Development, world consumption of steel will continue to grow by 5 percent in the next year.[25]

II. Foreign Competition and Economic Climate

Industry Employment

The US Bureau of Labor Statistics projected that from 2002-2012, employment in iron and steel mills would decrease by 20 percent. As demonstrated in the figure below, there has been a negative trend in iron and steel mill employment for a decade. From 2002-2005 alone, employment has decreased by 17.5 percent in Indiana. Employment as of August 2005 stands at 18,900.

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[22] "Congressional Steel Caucus hears Industry's Priorities and Concerns" (Press release of Congressman Pete Visclosky) (March 16, 2005). http://www.house.gov/apps/list/press/in01_visclosky/SteelCaucusHearing.html

[23] On December 1, 2005, however, when Congressman Visclosky listed vulnerable United States steel plant locations and cities where plants had recently been shut down, all were outside of Indiana. "Visclosky to Bush," op. cit.

[24] "Pence testifies to trade commission on steel" (testimony before International Trade Commission) (Project Vote Smart) (April 26, 2005). http://www.vote-smart.org/speech_detail.php?speech_id=91351&keyword=&phrase=&contain=

[25] OECD, http://www.oecd.org/home/0,2987,en_2649_201185_1_1_1_1_1,00.html

According to the Bureau of Labor Statistics, employment across the steel industry may continue to decline as consolidation and technological improvements increase in the steel-making industry. In addition, the number of jobs for unskilled labor might decrease as employers seek more people with two-year mechanical or electrical degrees. Engineers, computer scientists, business majors, and skilled production workers will find the most opportunities in the steel industry.[26]

Foreign and Economic Climate

Since the 1990's, a large number of steel companies have gone bankrupt. But instead of crashing down, the steel industry has risen from the ashes and become profitable. Consolidation has stabilized the industry, and modernization has increased worker productivity, enabling the United States to become the lowest-cost producer of various types of steel. Although China consumes all the steel it produces its steel making activities do drive up the cost of raw materials (iron ore, coke, scrap metal) worldwide.

III. Future Outlook of the Indiana Steel Industry

As of now, Indiana's chief foreign competition in the steel industry is from the European Union, Japan, South America, and Russia. Indiana's niche is making high-grade steel. Other countries make cheaper steel of a lower quality or steel for the commodity market.

[26] U.S. Dept. of Labor, Bureau of Labor Statistics. http://stats.bls.gov/oco/cg/cgs014.htm.

China is a long-term threat to the United States steel industry, but at present its competition seems to be focused on markets outside of Indiana. One of the primary effects of the Chinese steel industry on the American market is to drive up the costs of raw materials (iron ore, coke, and scrap metal). Despite its decline over the past several decades, the Indiana steel industry remains a vital component of the state's economy, both as an employer and as a supplier to other industries (e.g. the automotive industry).

To promote Indiana steel, the state could develop tax incentives or credits for companies that buy steel from an Indiana steel company.

IV. Conclusion

The Indiana steel industry has reached a position of relative strength and stability after a period of uncertainty and turmoil. Nevertheless there are still challenges to the steel industry. Rising energy costs, increasing prices for raw materials, and intense international competition pose a series of challenges to the United States steel industry, despite the healthy market for steel products from the United States.

Several proposals have been made by steel industry advocates for making the industry stronger in Indiana and giving it a greater presence abroad. These include:

- A single-sales factor concept for corporate taxes, making Indiana competitive with neighboring states which already use this method.

- Designating more of Indiana roads "extra heavy highways" to accommodate the transportation of steel to customers and markets.

- A bounty program which encourages the removal of mercury components in cars before they are used for scrap metal.

More broadly, the regulatory and tax policies of the State of Indiana have important implications for the steel industry.

A business-friendly posture on both counts is necessary for the continued success of Indiana's steel companies. The administration's Major Moves transportation investment proposal, the creation of the Northwest Indiana Regional Development Authority, and other important regulatory changes made to date provide a more conducive climate for Indiana's steel industry to prosper.

APPENDIX: Profiles of Current Indiana Steel Companies

Steel Dynamics

Steel Dynamics, INC	**Headquarters: Fort Wayne, IN**				Fiscal Year End 2004
Total Employment	Total Sales ($mm)	3 yr growth	Total Assets ($mm)	3 yr growth	Market Value ($mm)
1,645	2,144.9	148.1%	1,733.6	46.9%	1,404.7 (11 Nov 2005)

Source: OneSource, onesource.com

Flat Roll Division, Butler, IN
Employment 527
Annual Sales ($mm) 300
Manufactures cold rolled ultra thin steel & hot-mill steel; galvanizing services

Structural and Rail Division, Columbia City, IN
Employment 350
Annual Sales ($mm) 300
Manufactures structural products, wide flanged beams & piling

Bar Products Division, Pittsboro, IN
Employment 300
Annual Sales ($mm) 65.7
Structural Steel Manufacturing
Galvanizing facility, Jeffersonville, IN
Employment 30
Annual Sales ($mm) 6.6
Steel Processing/Fabricating Equip

New Millennium Building Systems, Lake City, FL
Joist-and-deck fabricating business

Roanoke Electric Steel, recently acquired
Roanoke, Virginia
Manufactures angles, channels, beams and other products for steel service centers

Steel Dynamics had a colossal year in 2004. Sales reached $2.4 billion, having never reached $1 billion before. Net income skyrocketed more than sixfold. Steel shipments shot forward by 22 percent. The operating income per ton of steel more than tripled. Only nine years old, the company has become the sixth largest steel producer in the United States. In 2005, Steel Dynamics' third quarter earnings reached $45 million.

A principal reason for the company's 2004 success was the new production facility in Pittsboro, Indiana. The company division located at that mill became profitable in its fourth month of operation (April 2004). By year's end, its return on investment was 25 percent. In addition, the Jeffersonville mill started shipping rail in 2004. Steel Dynamics has diversified by investing in

plants with different specializations and by even purchasing steel mills out of state. In Lake City, Florida, SDI has launched New Millennium Building Systems, a joint-and-deck fabricating plant, which made profit by August 2005.

In 2004, Fortune magazine listed Steel Dynamics as one of the 100 fastest-growing companies in the nation. Steel Dynamics is ranked 725 on the Fortune 1000. The Wall Street Journal devoted a major article to the success of Steel Dynamics in March 2005.

SDI recently diversified its Pittsboro facility to finish round steel bars for automobiles, tractors, and other machinery. This expansion will add fifty-five jobs to the already 300-employee facility. The IEDC assisted in this expansion by providing $1.05 million in tax credits and training grants to SDI.

AK Steel

AK Steel	**Headquarters: Middletown, OH**				Fiscal Year End 2004
Total Employment	Total Sales ($mm)	3 yr growth	Total Assets ($mm)	3 yr growth	Market Value ($mm)
8.400	5,217.3	31.7%	5,432.7	4.3%	803.8 (11 Nov 2005)

Source: OneSource, onesource.com

Rockport Works AK Steel, Rockport, IN
Employees: 110
Annual Sales ($mm) 7.5
Finishes hot rolled flat steel; continuous roll, pickling, annealing & galvanizing services

AK Steel is ranked 376 in the Fortune 1000 and was named by Fortune magazine as one of America's most admired companies.

Although headquartered in Ohio, AK Steel has seven steel-making and finishing plants throughout Indiana, Kentucky, Ohio, and Pennsylvania. AK Steel specializes in flat-rolled carbon steels as well as specialty stainless and electric steels. Rockport Works is located on the Ohio River. With more than 175,000 square feet of building, Rockport Works operates a high tech carbon and stainless steel finishing operation. AK Tube welds flat-rolled carbon and stainless steel into tubing which can be used for automotive or construction markets.

U.S. Steel

US Steel	**Headquarters: Pittsburgh, PA**				Fiscal Year End 2004
Total Employment	Total Sales ($mm)	3 yr growth	Total Assets ($mm)	3 yr growth	Market Value ($mm)
48,000	14,108.3	121.3%	10,956	113.2%	4,458.2 (11 Nov 2005)

Source: OneSource, onesource.com

Gary Works. Gary, IN
Employment 6,000

United States Steel Midwest, Portage, IN
Employment 1,000

U.S. Steel is ranked 149 in the Fortune 1000 and has an annual raw steel production of 19.4 million tons domestically. U.S. Steel is the nation's second biggest steel company. Earnings for the first half of 2005 were $700 million. Despite being headquartered in Pittsburgh, U.S. Steel has long had a major presence in Indiana.

Gary Works, located on the south shore of Lake Michigan, is U.S. Steel's largest manufacturing plant. Capable of making and finishing steel, Gary Works produces 7.5 million tons of steel/year. In May 2005, U.S. Steel began building a new blast furnace at Gary Works to replace an aging one that is noted for being the world's biggest. With a price tag of $260 million and involving 900 U.S. Steel employees, the project is expected to be done by December 2005. Cranes were imported from Belgium to allow the plant to lift the sections and put them in place.

Alongside Gary Works is East Chicago Tin, a finishing facility that produces 600,000 tons of tin products. In addition, there is U.S. Steel Midwest in Portage, Indiana, a facility that finishes tin products and serves automotive, construction, and container markets.

Mittal Steel

Mittal Steel Company	**Headquarters: Rotterdam, Netherlands**				Fiscal Year End 2004
Total Employment	Total Sales ($mm)	3 yr growth	Total Assets ($mm)	3 yr growth	Market Value ($mm)
164,393	22,197	394.8%	19,153	260.5%	18,520.5 (11 Nov 2005)

Source: OneSource, onesource.com

International Steel Group Burns Harbor, Burns Harbor, IN
Employment: 4,000
Steel products manufacturer

ISG Indiana Harbor Inc, East Chicago, IL
Employment 900
Annual Sales ($mm) 300
Manufactures basic carbon steel products & flat rolled sheets

Mittal Steel is now the largest steel company in the United States and the most profitable steel company in the world. The merger that created Mittal Steel USA in early 2005 put three Lake County facilities under the company's control: the two International Steel Group plants in Burns Harbor and East Chicago, and an Ispat Inland plant also in East Chicago. This combined operation eclipses U.S. Steel's Gary Works as the biggest integrated steelmaking facility in North America. The downside of the merger is that 1,200 salaried Indiana workers have been asked to take enhanced severance packages. But seventy research and development positions were moved from Pennsylvania to East Chicago, which is now the R&D headquarters for the company and one of the few globally-recognized U.S. research centers.

Mittal now has three operations in Indiana: two in northwest Indiana, and a joint venture of I/N Tek and I/N Kote in New Carlisle. The Burns Harbor facility is a fully integrated mill. In this location, the facility has ideal transportation access to railroads, water ports, and to the highways. Primarily, the Burns Harbor facility makes hot-rolled, cold-rolled, and coated-sheet steel products. This year, the Port of Indiana-Burns Harbor celebrated its 35th year of shipping internationally. Mittal Steel also operates Burns Harbor Plate, which produces 800,000 tons of 160" plates and 200,000 tons of 110" plates. The Indiana Harbor facility in East Chicago operates five blast furnaces and has raw steelmaking capability of 10 million tons/year. This facility was the previous Inland Steel Plant which was founded in 1901.

Nucor Corporation

Nucor Corp	**Headquarters: Charlotte, NC**				Fiscal Year End 2004
Total Employment	Total Sales ($mm)	3 yr growth	Total Assets ($mm)	3 yr growth	Market Value ($mm)
10,600	11,376.8	162.5%	6,133.2	68.5%	10,091.9 (11 Nov 2005)

Source: OneSource, onesource.com

Nucor Building Systems Corp, Waterloo, IN
Employment 331
Annual Sales ($mm) 50
Manufacturers carbon steels and provides pre-engineered buildings

Nucor Steel, Crawfordsville, IN
Employment 550
Flatroll steel

Nucor Fastener, St. Joe, IN
Employment 220
Manufacturer of standard and metric hex head cap screws, flat washers, bolt assemblies, finished hex nuts, and structural nuts. Products are sold to the automotive, machine tool, farm, and construction industries.

Vulcraft, St. Joe, IN
Manufactures steel joists and joist girders

Nucor Corporation is a large steel producer in the United States with three different types of facilities in Indiana: Vulcraft, Steel, and Building Systems. Nucor has one Vulcraft facility at St. Joe, Indiana, which produces steel joists, joist girders, and steel deck. Total production among the seven Vulcraft facilities is more than 685,000 tons of steel joist and joister girders/year. Of the six facilities which make steel deck, 430,000 tons are produced/year. The Nucor Steel Crawfordsville plant produces hot-rolled and cold-rolled sheet steel using a thin-slab process at low capital cost. Also, at this facility Nucor uses a breakthrough technology of strip casting which directly casts a mold from the steel without additional hot or cold rolling. Nucor Building Systems operates a plant in Waterloo, Indiana. At this facility, complete metal building packages can be customized and combined with other building materials for a consumer's needs. Total production from the three facilities of Building Systems is 145,000 tons/year.

CSN, LLC

Brazilian-based CSN operates a subsidiary in Terre Haute, IN. At an 18-acre plant, CSN operates a continuous pickle line, two-stand reversing cold mill, hot-dip galvanizing line, hydrogen batch annealing, temper mill, and a coil slitter. CSN offers value-added flat rolled steel products.

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People Interviewed

Alan McCoy	AK Steel
Edward Charbonneau	Local Government Academy, Indiana University Northwest
John Nielsen	Mittal Steel
John Nolan	Steel Dynamics, Inc.
Mary Fink	Steel Dynamics, Inc.
Christopher Masciantonio	U.S. Steel