Testimony of

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Before the

Senate Committee on Commerce, Science and Transportation

"Manufacturing Our Way to a Stronger Economy"

May 11, 2011

Thank you, Chairman Rockefeller, Ranking Member Hutchison and Members of the Committee. I welcome the opportunity to be here today to testify on behalf of both my own union, the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union—the United Steelworkers (USW) and the entire AFL-CIO whose affiliate unions represent some twelve and a half million working men and women across the United States.

The focus of today's hearing is exactly what this nation needs to do but the truth is American manufacturing is in dire circumstances and its future is in jeopardy.

The American economy remains fragile and uncertainty reigns. Unemployment, underemployment, wage stagnation, foreclosures all paint a grim picture of an economy still struggling to recover. For American manufacturing communities, this recession has been just one more big wave in a decade of economic tsunamis that have devastated workers, employers and communities.

We believe that the decade long decline of the American manufacturing base is a crisis that has undermined our economic security and is a direct threat to our national security. The question before us is, what has happened to that prosperity and security and what must we do to strengthen the nation's industrial base?

The erosion of America's manufacturing base is a clear and present danger. The details of this threat are in a report commissioned by the AFL-CIO Industrial Union Council, entitled *Manufacturing Insecurity: America's Manufacturing Crisis and the Erosion of the U.S. Defense Industrial Base*. This report has been submitted in support of this testimony, and it documents these concerns in detail

My testimony makes four key points:

1) The nation's technical, innovative and industrial capacities are essential to our economic and national security.

2) The health of our manufacturing base and our defense industrial base are inextricably linked. They are in critical condition.

3) Our trade, tax, investment, procurement policies, the globalization of production and the failure to have a national manufacturing strategy helped create this situation.

4) It doesn't have to be this way. We must act now with strategic and employment linked policies, investments and incentives to revitalize our manufacturing base and ensure our national security.

The Current Situation

It is dangerous to assume that the 250,000increase in manufacturing employment over the past year, the first increase since 1997, signals a major recovery. Yes, it comes as welcome news, but occurs against the backdrop of how far we have

fallen. More telling is new Department of Commerce data that shows companies cut their work forces in the U.S. by 2.9 million during the 2000s while increasing employment overseas by 2.4 million. The technical and industrial capacity offshored quickly became imported goods and a major contributor to our crushing trade deficits.

Between 1998 and 2010 we lost approximately six million manufacturing jobs with over two million of these occurring from 2007-2009. At the same time some 57,000 manufacturing facilities closed. The loss of these skilled workers, engineers, designers, scientists and more has eroded the nation's working middle class and dangerously undermined our technical, industrial and innovative capacity. This nation will not be able to double net exports, reduce our trade deficits substantially nor meet our economic and security needs unless we produce more of what we consume. Our nation's future success, the reclamation of the American Dream, in fact, depends on revitalizing our manufacturing sector.

Manufacturing Insecurity

It is a myth to think that the manufacturing base and the defense industrial base are independent of one another. A National Research Council study has noted, the boundaries between the defense industrial base—the set of industrial and military facilities devoted to the production of defense-related products—and commercial industry has become blurred. Workers see this on a daily basis as they produce commercial goods and technology that are used or modified for defense purposes.

The *Manufacturing Insecurity* report we have submitted by Dr. Joel Yudkin documents the dangers the nation faces from this erosion. There has been a continuous weakening in manufacturing value-added output, acceleration in manufacturing's steady decline as a share of U.S. GDP, stagnant and even negative growth—the first time in seven decades—in industrial capacity, and the substantial drop in capacity utilization since 2000. In addition there is the shocking growth in trade deficits and import penetration that have led to the loss of millions of U.S. jobs. Increasingly, our nation's corporations are picking up stake and moving their production overseas, scouring the globe for the lowest cost location to produce – in the short term – no matter what the long-term cost to our economy and our people. Congress' role is to decide what's best for our people, not the corporations whose only allegiance is to short-term profits and rising compensation for their management, directors and returns to their shareholders.

Another new report by the Information Technology and Innovation Foundation, *The Case for a National Manufacturing Strategy for the United States,* offers startling evidence that the rosy published industrial output and productivity figures are grossly overstated. The truth is far more troubling. From 2000 to 2008 (pre-Great Recession), fifteen of nineteen manufacturing sectors accounting for 72 percent of manufacturing output saw absolute declines. Dr. Susan Housman of the Upjohn Institute estimates that manufacturing productivity figures for the past decade have been overstated by 20-50 percent because they failed to account for imported elements. Bad data has been used to gloss over the reality of what has occurred in critical industries. The data, however, can not mask the pain that has been, and continues to be felt, all across this nation by unemployed workers and those that live in hollowed out manufacturing communities.

Losing Critical Industries

America's manufacturing sector continues be the largest, most productive and technologically advanced in the world. But its lead in a number of industries vanished years ago, and many of its remaining areas of strength are facing powerful challenges.

The pattern of decline in key sectors such as semiconductors, printed circuit boards, machine tools, advanced materials, and aerospace is apparent. It can be seen in defense critical technologies where domestic sourcing is endangered in products ranging from propellant chemicals to space qualified electronics, power sources for space and military applications (batteries and photovoltaics), specialty metals, hard disk drives, and flat panel displays (LCDs), to name but a few.

It can be found in critical materials like rare earth metals and magnets where the Chinese purchased U.S. manufacturing facilities and closed them, such as at Magnaquench in 2004). China now holds a monopoly on the rare-earth minerals used in the manufacturing of missile magnets, computers, wind turbines, lithium ion batteries and hybrid engines. In fact, advanced manufacturing is dependent upon rare earths.

Another critical indicator of the erosion of U.S. manufacturing competitiveness is the Import Penetration Rate (IPR), the share of the U.S. market held by imports. According to the 2010 U.S. Business and Industry Council (USBIC) study of Import Penetration Rate (IPR)— in 2008, 69 of the 114 capital and technology intensive industries examined lost share of their home U.S. market to imports, and their aggregate import penetration rate increased from 34.30 percent to 36.23 percent.

The broad domestic and global economic trends and import penetration rates reflect a sustained and dangerous erosion across nearly all manufacturing industries, including many that supply products, components, and technologies that the Pentagon considers important to defense. The capacities required for national security needs rest upon a defense industrial base embedded in, the nation's overall domestic manufacturing base.

As the commercial industrial base globalizes, the loss of domestic production facilities can also lead to the loss of innovation capabilities.

Specifically, the acceleration of manufacturing offshore is associated with the following trends:

- Weakening innovation capabilities of domestic industrial sectors;
- The transfer—deliberate and unwitting—of cutting-edge technologies and know-how to economic rivals and potential military adversaries; and
- Foreign countries establishing industrial and technology policies aimed at enhancing their technological capabilities relative to America's.

Tomorrow's Industries

The United States has long been—and remains—the world leader in most materials-related technologies, but during the first half of the 2000s decade, the National Research Council (NRC) warned that this leadership was eroding. This is reflected in the doubling of the U.S. advanced materials industry's global trade deficits between 2002-2006, according to the U.S. Census Bureau's Advanced Technology Products (ATP) trade data, as foreign competitors made inroads into U.S. markets. The NRC found that:

- *Domestic materials production is disappearing and moving offshore*. Materials subsectors have consolidated significantly since 2000. Plant capacity and employment both have declined, and production of critical materials, such as specialty steels, advanced ceramics, and magnesium, has been moving offshore.

- *Materials R&D and innovation is following production offshore*. The migration of materials producers and users has harmed domestic advanced materials R&D by inducing many U.S. companies to shift materials R&D overseas. It has weakened U.S. R&D capabilities in several materials technologies vital to national security, including night vision systems, lanthanides (rare earth elements), and specialty metals.

- *The margin of U.S. leadership in advanced materials R&D is eroding and increasingly challenged by other nations*. The largest U.S. advanced materials trade deficit is with Japan, whose imports into the United States grew steadily over the decade, more than doubling in the years between 2002-2008 ($417 million to $948 million). However, China is also aggressively seeking to develop its own technological and production capabilities in this area. Our escalating advanced technology deficit with China and their recent actions to control rare earth exports reflect their strategy.

The net result is the erosion of U.S. leadership in advanced materials R&D. The following illustrations from the NRC reports for the National Academy of Science highlight this trend:

- *Metals*. Research into the production, processing, and development of metallic materials in the United States has been declining since 1998.
- *Superalloys*. Superalloy R&D has declined significantly over the past decade. Attracted by lower costs, superalloy manufacturers increasingly are locating their production offshore.
- *Composites*. Composites are a critical technology used in major defense systems. Once unchallenged, other countries in several areas have supplanted U.S. leadership in composites. U.S. defense and commercial programs—the Joint Strike Fighter and Boeing's 787 Dreamliner—are outsourcing production and supporting R&D in composites overseas.

- *Electronic and Opto-Photonic Materials*. These are critical technologies for maintaining leadership in semiconductors. This industry and its material supply chain are moving toward a global processing and manufacturing infrastructure that is taking some of its R&D capacity with it.

Building Other Nations' Research & Development

The flip side of the migration of U.S. innovation capabilities offshore is the buildup of other countries' R&D capacity. The strengthening of foreign technology capability does not always result from market forces and commerce-facilitating progress in communications and transportation. Instead, this development often results from multinational companies taking one of three tacks:

- Actively exploiting the business environments created by U.S. trade policy – for which they have lobbied hard – that encourage them to supply the U.S. market even for highly sophisticated manufacturers from low-cost foreign facilities;
- Responding to foreign government carrots and sticks; or
- Formulating various investment strategies synthesizing these two approaches.

The carrot-and-stick approach by foreign governments is a direct reflection of a broader strategic and tactical approach to capture markets and technological dominance in specific sectors. The recent announcements by Intel, Applied Materials and other advance technology firms of multibillion dollar investments in research and production facilities in China show how aggressive and successful the Chinese government has become at this game.

Trading Away Jobs

Our trade deficit, especially with China, is symptomatic of the challenges we face in maintaining our industrial base. Although the overall trade deficit is down by a quarter from the record levels of 2008, the 2010 U.S. goods trade deficit with China broke all previous records. And, the reduction in our trade deficit largely resulted from the economic crisis our country faced, not a long-term change in the trend.

Through the decade our goods trade deficit with China soared, tripling since WTO accession -- from $84 billion in 2001 to a record $273 billion in 2010. China's share of the U.S. trade deficit in manufactured goods rose continually from 28.5 percent in 2002 to 75.2 percent in 2009. In 2010, we ran a trade deficit with China in advanced technology products (ATP) of $94 billion, while with the rest of the world; we ran an ATP surplus of $10 billion. The U.S. trade imbalance with China in ATP should be a clear warning signal that our overall trade relationship is severely imbalanced in ways that are detrimental to our economic potential and future.

U.S. foreign direct investment (FDI) in China has jumped, especially in manufacturing. FDI in China is all about new production and job creation, unlike in the United States where new FDI tends to signal a change of ownership, not new production. The Economic Policy Institute has estimated that the growth in the U.S. trade deficit with China from 2001 to 2008 has displaced about 2.4 million American jobs.

Perhaps even more disturbing than the aggregate growth in the U.S. trade imbalance with China is the composition of our imports and exports. Our top fifteen exports to China (by 4-digit HTS code) include five categories of waste products (ferrous scrap, paper scrap, copper scrap, aluminum scrap, and offal); two categories of raw materials (soy and polymers), and at least three categories of parts. In contrast, all of China's top fifteen exports to the United States are manufactured products or parts.

More than 50% of China's exports to the U.S. come from foreign-invested enterprises. Many U.S. corporations supported Permanent Normal Trade Relations claiming that they wanted to serve China's vast market. Some may have had honest intentions. But the reality is, far too many of our companies have offshored their production using China simply as an export platform replacing U.S. jobs and production.

This is the result of concerted strategic interventions, starting with currency intervention, by the Chinese government over many years – and inaction by our own. With an explicit export strategy targeting key industries, sectors, and technologies, China has captured a growing share of U.S. and world markets. It has used a wide array of unfair trade practices, including currency manipulation, export subsidies, widespread suppression of worker rights and wages, and tariff and non-tariff barriers to exports, to support this strategy.

The financial crisis has proved to be another opportunity for the Chinese government. By controlling access to its market in crucial sectors with indigenous innovation, the Chinese government buys time to build dominant industries and technology powerhouses that will have a clear competitive advantage over their lagging counterparts in other countries. This is already underway in the clean energy sector, where these trade-distorting polices work in concert to ensure market control. The 301 clean energy manufacturing trade case filed by the United Steelworkers union and the currency legislation passed by the House last fall are aimed at stemming these practices.

It always baffles me why we don't believe the Chinese when they say they want to dominate certain industries, why we don't believe what they publicly announce as part of their "five-year plans". They outline to the world what their intentions are, but too many of our policymakers simply don't want to believe them. Our nation is being victimized by free trade ideologues and policymakers who want to discuss theory, rather than recognize reality.

Innovation Is Key To Our Future

President Obama is right to focus on innovation as key to our economic future. But, innovation does not mean changing course, as America has been, and continues to be a leading innovator. And, no sector is more important to leading innovation than manufacturing, which generates more than 60 percent of all patents.

Many people continue to have an outdated image of manufacturing as companies with belching smokestacks and rusted buildings. Today, at a modern steel making facility, you will find most people working in air conditioned rooms at computer

keyboards. Auto factories are replete with robot welders and workers controlling activities at ergonomic workstations. Fiber optics, carbon fiber composite materials and countless other advanced materials are produced by our people.

But, these operations are at risk. The policies of our competitors, and some failures in our own system, have resulted in more and more research and development being moved overseas. Our competitors understand that R&D and manufacturing are inextricably linked – engineers, scientists and other innovators want to be close to the action, so that they can test their creativity and ensure its success.

Our first priority must be to make sure that our intellectual property protection regime maximizes our ability to innovate, produce and create jobs for the future here at home. Congress is hard at work on patent reform legislation that, hopefully, will achieve these goals. For the last several years, organized labor has been an active participant in the legislative process and is optimistic that the legislation that passed the Senate, and is now working its way through the House will achieve those goals. Our ultimate desire is to ensure that companies that innovate can reap the rewards of their efforts and deploy the fruits of their innovation here at home in American plants and by creating American jobs. Strong intellectual property protection is the foundation upon which we can build a 21st century manufacturing base.

The linkage between innovation, research and development, and production is clear and powerful. Engineers, scientists and innovators want to be close to the action, to deploy their creativity and refine its application. Investing in research and development is critical and, as noted, once created, it must have a robust legal framework of legal protections.

But, we must do more. An activist approach is necessary. Other nations recognize the importance of investments in this area: We need to do the same. It's vital not only to the quest to develop the products of tomorrow but, to ensure that we produce them as well with the skills and hard work of our people. China, is actively seeking to develop its own innovative capacity – either by subsidizing its own indigenous development, or by incenting and coercing foreign companies to create R&D facilities on its soil. Hundreds of millions of dollars of investments in new R&D facilities are occurring by U.S. multinational companies in China. With it, today, and in the future, will go the manufacturing facilities to produce the products of those investments.

We need to permanently extend the R&D tax credit, but need to ensure that the innovation is applied here at home to reinvigorate our manufacturing sector. We shouldn't be subsidizing R&D expenditures by our companies only to find that their innovations are deployed offshore. Other nations recognize the value of investments in this area, and the need to spur domestic opportunity….so should we.

Undervalued Currency Subsidizes Exports and Investment

Through systematic and one-sided intervention in currency markets, the Chinese government has kept the renminbi approximately 40 percent undervalued with respect to the U.S. dollar for many years in support of its export strategy. The undervalued

Chinese currency serves the government's strategy of building powerful export markets rather than boosting its own domestic consumer market. Undervaluation takes market share and jobs from the United States by penalizing our exports. It subsidizes imports into this country while encouraging outward investments into the Chinese economy.

This is not free trade, nor is it the way the major economies of the world have agreed to behave. And the Chinese government's actions influence the monetary policies of other countries compounding our trade problems. The U.S. Treasury bi-annual currency reports acknowledge the fact that other nations mirror the Chinese government's behavior. Indeed, South Korea has been manipulating it's currency – the won – yet we have failed to respond and the soon-to-be-considered Free Trade Agreement with that country failed to include provisions to address this critical issue

While addressing the Chinese government's currency manipulation is one of the highest priorities for workers and employers in the manufacturing sector, it is time to recognize the broader impact of China's practices. Lost manufacturing jobs lead to lost tax revenue and higher budget deficits that limit our ability to invest in our future. This puts substantial pressure on federal, state and local budgets, resulting in layoffs of teachers, police and other emergency responders. And it has undermined our future by undercutting the array of career choices and educational opportunities, especially in science, engineering and the technical occupations needed for a vibrant innovative manufacturing economy.

Taking action to end currency manipulation will generate jobs and investment in the U.S. economy. Nobel laureate Paul Krugman estimates an end to the manipulation would produce a net export gain to the United States, Europe and Japan amounting to about 1.5 percent of GDP, increasing growth in the U.S. economy by about $220 billion. The Peterson Institute and the Economic Policy Institute agree that a 25 percent to 40 percent revaluation in the renminbi would reduce the U.S. trade deficit between $100 billion and $150 billion per year, adding between 750,000 and 1 million jobs to American payrolls.

It is time for Congress and the Administration to act decisively to end currency manipulation and other illegal trade practices.

Strategy Matters

The U.S. needs to recognize that all our major global competitors have national manufacturing strategies. Advanced developing nations like China, India and Brazil all have one. The leading developed nations like Germany, Japan and the Scandinavian nations all have them. We do not and it is killing us.

The differences in approach are dramatic. Our competitors consciously seek manufacturing as a critical jobs and prosperity strategy for their nations. Our blind free market approach theorizes seeking cheaper prices for consumers is better than good jobs and income. They target industries and technologies seeking to generate competencies and opportunities. We do not. Economic success is not measured simply by the price of a flat-screen TV, but how well one can feed, clothe and house

their families, how they can have access to health care and education, how they can look forward to a secure and dignified retirement. On that basis, we are falling further and further behind.

Other nations align their tax policies and government investments to achieve their goals and objectives. Out tax polices encourage offshoring and we quibble over Buy American policies that are less broad than our competitors own domestic procurement laws. They invest in training and education linked to their employment and economic strategies. We invest in training and education without clear employment strategies or goals and, unfortunately, as an after-the-fact sop to those most injured by free trade agreements.

Last week, one news organization highlighted the potential for Congressional consideration of corporate tax reform legislation. In the article, it identified that the Administration was looking to reduce tax rates, and would make up the revenue lost from rate reductions by "closing loopholes and slicing exemptions." It only identified two examples: the tax deduction for domestic manufacturing and accelerated depreciation for capital equipment. Those are mechanisms vital to revitalizing our declining manufacturing base. Why on earth would we want to attack those key economic engines? Not one of our competitors would take such a short-sighted and self-destructive approach. If those changes take effect, our competitors will be laughing themselves silly as they skip to the bank.

Some, like the Chinese government, engage in illegal activities in support of their manufacturing strategy such as currency manipulation, illegal subsidies, repression of workers' rights, weak environmental and wage and hour laws, intellectual property theft and more. These actions should be fought aggressively but for too many years we have been lax in the enforcement of our own trade laws. And, we find the same U.S. corporations and financial institutions that take advantage of the situation in countries like China to produce goods for export to the U.S. are the same ones fighting trade enforcement and changes to the tax laws.

There is another way. Other nations clearly recognize their national interest. It is time to recognize ours. America has an economic and national security interest in a vibrant manufacturing base. It is time to do something about it.

A Strategy for the Future

The USW and the AFL-CIO recognize the critical steps government has taken to stabilize the economy by helping ensure the survival of a domestic auto industry, investing in needed infrastructure and a diverse efficient clean energy economy, securing jobs from those investments with Buy America requirements, and putting critical financial reforms in place.

This work is far from finished. But, today we see Congress mired in a specious debate that we can somehow downsize our way to success. The economy doesn't work that way.

The Congress needs to complete efforts begun last year when the House passed a series of bipartisan bills that included a National Manufacturing Strategy, currency, rare earth and other manufacturing legislation. This year the Administration has proposed needed new investments in small business, research and development, clean energy manufacturing, and infrastructure.

Democrats in the House of Representatives recently announced their Make It in America Agenda that identifies steps that should be taken to revitalize manufacturing and job creation here at home. It's an important foundation both parties embraced last year. It should not be a partisan issue in this Congress and we hope that Republicans will embrace the effort and join in promoting policies that will enhance national and economic security.

All of these provide a start but much more needs to be done at scale. The policies, investments and incentives we enact must be strategic and employment linked. Essential to a comprehensive program to restore domestic manufacturing are the following elements:

The USW and the AFL-CIO call on our government to aggressively address the Chinese government's trade violations, as well as to establish our own strategic priorities and policies. We believe a healthy and robust manufacturing sector is central to a sustained economic recovery and to our national security.

The following elements are essential to a comprehensive program, a national manufacturing strategy, to restore domestic manufacturing:

- **Get our trade house in order and enforce our laws**: Aggressively enforce our trade laws. We need to address China's trade violations and establish our own strategic priorities and policies. We should view success not as the number of trade agreements that are signed, but by the results they achieve. Our trade agreements should be designed to empower workers to share in the fruits of their labor and enable them to enter the middle class with respect and just compensation for their efforts.

- **A re-commitment to investment in infrastructure**: America's infrastructure needs—energy, roads, transit, bridges, rail, water, etc.—are huge. We have a $2.2 trillion infrastructure deficit, according to the American Society of Civil Engineers. Not only will spending here employ people right away, it will lay the foundation for economic growth in the future. Funding for infrastructure must be built on a foundation that aggressively promotes Buy American policies. Americans want to know that their tax dollars are being used to create American jobs. And there is no conflict between more spending now and efforts to address fiscal imbalances down the road. Indeed, an improved America is the legacy we should leave to our children and grandchildren.

- **A tax structure that encourages manufacturing investment:** Eliminate tax incentives and loopholes that encourage financial speculation rather than investment, outsourcing and off shoring production, and enact tax incentives for companies that produce domestically.

- **Investment in a 21st Century Energy Infrastructure:** Enact measures to encourage the deployment of renewable energy, advanced automotive technology and other clean energy technologies. This can be accomplished by expanding funding for 48(c), industrial efficiency projects, and other policies to encourage development of renewable sources of electricity and by providing higher loan authority and additional funding for section 136, the Advanced Technology Vehicles Manufacturing Incentive Program. These efforts must be coupled with expanded utilization of domestic supply chains. Clean and green jobs must become a reality: America must not cede leadership of this industry to other nations. We must invest in these 21st century infrastructure technologies on a similar scale to our investment in replacing the failing infrastructure of the last century. And, again, investments in this area must support and promote domestic job creation and supply chains.

- **Innovation for American Manufacturing:** The United States continues to be the world's engine of innovation, but that lead is declining. There is a direct correlation between R&D and production and we must protect our nation's innovative leadership. Doing so requires that we maintain strong intellectual property protections to ensure that companies have the incentive to make investments in plant and equipment here at home. We must also increase efforts to fight the intellectual property right violations of competitors that seek to profit from the creativity of our people. Increased support for research and development in the United States, coupled with support for testing and deployment of those new technologies in our factories, will ensure that our manufacturing capabilities expand. R&D investments financed with public dollars (grants, tax credits, etc.) must be accompanied by employment accountability requirements.

- **Workforce development policies:** America continues to have the best and most innovative workers To stay ahead of the competition, however, we must constantly upgrade our skills and training Revitalizing our manufacturing sector requires that we make investments in our people to ensure they are equipped to meet the needs of industry Now is the time to renew and expand investments in our people Congress must increase access to training funds for people who are out of work as well as those seeking to enhance their skills Ultimately, a high-skills workforce must be one whose rights on the job and ability to speak up are protected and thus made real through strong labor laws and strong unions.

While the economic crisis that began in 2007 has done massive damage to our country, the truth is our problems run far deeper and none is more fundamental than the catastrophic decline of U.S. manufacturing which has occurred over a long period. The health of the economy, the success of our people and our national security are

inextricably tied to a vibrant and innovative manufacturing sector. We must revive U.S. manufacturing as a clear centerpiece of our nation's economic and security strategy.

This Congress and the Administration have the opportunity to take steps to restore our nation's manufacturing capabilities. The USW and AFL-CIO are committed to working with you to do so.