

Manufacturing and the Future of the American Economy

Thank you very much, Michael [*Sheehan, CEO of Hill, Holiday, a PR & advertising firm*]. And thank you also, Peter Rollins [*President of the Club*], for your kind invitation.

And I thank all of you [*audience*] for taking time from your busy schedules to hear what this Aussie has say, which is, of course, first and foremost, a hearty G'Day.

I am very pleased to be here at one of the most influential speaking forums in the U.S. and in the world ... which also happens to be located in one of the great historic cities of the United States.

No person with even a passing sense of history can walk the Freedom Trail – I walked it with my daughter during her days at Tufts – without feeling the chill it sends down your spine.

And let me say upfront – and this may surprise you, given much of what you see in the media these days – that in my travels throughout the world, I have learned that people still look to that light that shines from your Old North Church.

America matters to the world much more than Americans think.

And thank you, Michael, for mentioning my hometown of Darwin.

Darwin has changed quite a lot since my grandfather arrived there from Greece about 100 years ago. Back then, life was pretty basic ... no electricity or running water, about 300 people ... and about 300,000 crocodiles.

Well, today Darwin is a city of about 300,000 people – with a diverse, bustling economy ... but one thing hasn't changed ... the crocs are still there.

Whenever friends like Larry Kudlow and others call me both a great Australian and a great American, I take it as a high compliment, because I love both countries ... one, of course, because it is my home, and the other, because it is the world's indispensable nation ... and that's something I think sometimes even Americans forget.

But we Australians haven't forgotten. If it were not for the Americans at the Battle of the Coral Sea in 1942, we may have become an occupied country.

Looking beyond that single event, the United States has shown remarkable leadership in war and peace, particularly since World War II.

I think that, especially in times of conflict and disagreement like today, people forget that record of leadership ... even here in this country.

Maybe – and this is the advice of a friend – we should do more remembering and less forgetting. Maybe we should remember how American leadership, in founding alliances like NATO, presided over the world's security during its most dangerous days.

We should also remember America's economic stewardship. Through the Marshall Plan, the IMF, the World Bank, the G-7 and the WTO, the United States has presided over a world economic system that first brought opportunity to war-torn Europe and devastated Japan ... then to the Asian Tigers and Latin America ... then Eastern Europe ... and now to 2.5 billion people in China and India and other emerging economies.

And we might also remember that there never was a nation in all of history that guided two utterly defeated nations ... former enemies ... to restore themselves, within a generation, to the number two and number three economies in the world, both as strong democracies.

None of this would have happened without the international institutions championed by the United States, and reinforced by the willingness of this country to open its markets to the world. The United States also opened the doors of its unparalleled universities – like Boston College – welcoming the world's most astute minds to its graduate and business schools.

As a result, it has long been commonplace to hear about the influence of the Chicago School in places like Chile or Poland, and equally common to see Nobel prizes being awarded to first- and second-generation Americans.

And here let me note that this openness extended to the private sector, including my own company. Of the last six CEOs of Dow Chemical, five were born outside the U.S.: in Hungary, Italy, Bulgaria, the U.K. and Australia.

With all due respect to certain historical analogies that have become popular in the past few years, let me say that the Pax Americana dwarfs the Pax Romana in every conceivable way.

No Roman, no Thracian, no Egyptian of Rome's golden age could imagine the living standards that are enjoyed today by hundreds of millions of people ... and they certainly couldn't have imagined the freedoms and the individual opportunities.

America is indeed the indispensable nation of our times.

And that leads me to three subjects I want to talk about today:

- First, the importance of manufacturing to the health and vigor of the overall U.S. economy;
- Second, the forces that threaten this economy;
- And third, the ominous consequences of a weakened American economy, not only for the United States, but for the world.

I start with the premise that the indispensable part of this nation is its mighty economy.

And that's what worries me ... because today I believe the American economy is under siege, and though I do not dismiss the many geopolitical threats at large in the world, I believe the greatest threats to the United States – and its world leadership – are internal, not external.

And here I will cite the threat to this country's most underappreciated economic pillar: the manufacturing sector, which includes something near and dear to my heart: the 2 trillion dollar (global) chemical industry, as well as the 50 billion dollar Dow Chemical Company.

But please, don't misunderstand. I am not worried about my industry's – or my company's – future, per se. We will continue to produce essential products and continue to do well.

What concerns me is this question: will the chemical industry and other manufacturers continue to be a part of the American economy? Should our companies operate in Massachusetts or Dubai ... and should our headquarters be in Boston or New Delhi?

I think that is a crucial question for policymakers in this country.

I am well aware there are those who believe that manufacturing is part of the “old economy.” Many cite the decline of manufacturing as a percentage of GDP ... which 50 years ago accounted for 25% and today is about 12.

In fact, I had the dubious pleasure of being at a meeting in Washington a while back where I heard a banker declare that manufacturing isn't very important at all. I think his exact words were “you have been deemed irrelevant.” I had to bite my tongue until it just about bled.

“Irrelevant” is an odd characterization for a sector whose output is \$1.6 trillion ... equivalent to the 8th largest economy in the world. It is an odd characterization when you consider that manufactured goods make up over 60% of U.S. exports. And it is a particularly odd statement when you consider that manufacturing directly employs more than 14 million people in the United States. Odder still when you consider that manufacturing productivity consistently outpaces that of other sectors.

And that manufacturing jobs pay on average 25% more than other jobs ... in my industry, for example, the average pay is about \$70,000 ... about half again the median household income in the United States.

Finally, “irrelevant” is an odd characterization for a sector that is responsible for over 70% of non-governmental R&D ... that’s right: 70%!

Ultimately, we have to decide. Is this to become a country only of services ... a two-coast economy ... with finance based in New York and Boston, politics and law in Washington, entertainment in California? Shouldn’t Boston have both Fidelity and Raytheon? Can we really afford to be eternal consumers of what someone else invents and manufactures ... and make no mistake about it, invention and innovation are directly linked to manufacturing ... not to services.

Someone has to invent and make that LCD for your computer and TV ... or the epoxy resin that enables computers to be tiny, fast and powerful. Someone has to build the basic infrastructure of the future ... to bring clean water to all parts of the world through technology ... like Dow’s reverse osmosis membrane ... and bring electricity to entire villages in Africa through advanced solar panels ... like the ones we are developing.

If you aren’t making stuff, then it’s unlikely that you will be inventing stuff. The two do not exist in isolation from one another ... regardless of what the economic ideologues say.

And so I, along with many others who appreciate this country’s historic leadership, wonder how it is that policymakers can stand by as the great manufacturing pillar of this economy is being undermined.

And no, I am not talking about protectionism. We know that the world has evolved into a single global market. No one knows better than Americans that a free market generates growth and creates wealth for everyone ... the rising tide, as John Kennedy said, that lifts all boats.

What concerns me are structural DISadvantages that are rendering much of U.S. industry un-competitive ... not because U.S. workers are falling behind ... they are still by far the most productive in the world ... but disadvantages that are well within this country’s power to reverse ... but which continue ... somehow ... to be ignored.

In a recent report, the National Association of Manufacturers cited five of these structural problems. Together they add a staggering 32% to U.S. manufacturers’ production costs, as compared to this country’s major trading partners.

To put that number in simple terms, these disadvantages add \$6 of cost for every hour of production – which is a larger number than the total hourly cost in China.

While it is well known that countries like China have lower costs, it is generally not recognized that America's self-imposed structural costs put U.S. manufacturers at a disadvantage with competitors in mature economies, like Europe and Japan.

So what are the culprits that are driving higher costs in this economy?

- #1 – Corporate taxes;
- #2 – Our civil justice system;
- #3 – Government over-regulation;
- #4 – Employee health and pension mandates; and
- #5 – High energy prices.

Let's examine each of them in turn.

◆ #1 – Corporate taxes: Nobody seems to have noticed that while other countries have been lowering their corporate tax rates, here in the U.S. they have remained roughly the same.

◆ Disadvantage number two is over regulation. The annual cost of federal regulations to manufacturers in this country is more than \$10,000 per employee, twice as high as the service sector.

No one is suggesting that all regulation is bad; much of it we couldn't live without. But surely there is room for more simplification and greater efficiency.

◆ Disadvantage number three is the civil justice system. What Voltaire once said of the Holy Roman Empire ... that it was neither holy, nor Roman, nor an empire ... can likewise be said of the Civil Justice System ... not civil, not just ... and not a system.

The United States has the most expensive tort system in the world, costing 7% of GDP ... while in Europe and Japan, it is less than 1% of GDP.

◆ Structural disadvantage number four is the rising cost of our pension and health care systems.

One expert likens the current pension system to the old Popeye cartoon character, Wimpy, who promised, "I'll gladly pay you Tuesday for a hamburger today."

Unfortunately, our pension system operates on the same pay-you-later principle.

Social Security is clearly in trouble, and many large companies in recent years have turned their pension obligations over to Pension Benefit Guaranty Corporation ... in other words, taxpayers.

With the recent federal legislation [*The Pension Protection Act of 2006*], the problem has been mitigated, but not eliminated. The basic issue is demographics. People are living longer and retiring earlier, including the huge bulge of 76 million baby boomers who are now entering retirement.

Today the work–retirement ratio is an actuary’s nightmare ... 35-plus years of work and 20-plus years of retirement is not uncommon.

Given the low ratio of workers to retirees over the next 30 years, it is highly unlikely that taxpayers will be willing to give up 20% or more of their paychecks to support people who aren’t earning some kind of income, particularly when they are healthy and mentally astute.

Nor should people entering retirement find out a few years later, that the income they were promised isn’t all there ... or isn’t there at all.

There is, fortunately, a solution to the pension problem, a solution originally described, if I got my popular culture right, by that pointy-eared intellectual from Star Trek, Mr. Spock, who said, “Live long and prosper.”

For purposes of protecting our pension system, I would slightly revise those words to: “Live Long, Work Long, and Prosper.”

This requires some tough decisions ... involving everyone who pays for the system and who benefits from it ... the government, private companies, and retirees.

We in the private sector can do our part to encourage employees to save at an earlier age ... with tax-advantaged 401k plans, for example. And the government needs to finance Social Security so that it really is secure ... by getting its fiscal house in order ... and keeping it that way.

Finally, people have to be realistic about work and retirement ... the fact is, people can and should work longer, and the government can do much to encourage that.

And if we are looking for role models, how about Warren Buffet, age 77, or Alan Greenspan, age 79, or Joe Paterno, 80 years young?

And by the way, there is little evidence that 30 years of idleness is good for people. In fact, just the opposite. Studies at the Universities of Chicago and Michigan indicate that people who have meaningful work are happier ... that *Work is not just a means to an end ... but has enormous intrinsic value* ... also consider the fact that up to 90% of people today say they are happy in their jobs.

I think the lesson is obvious: we can help ourselves, our children and their children by continuing to work (by the way, the economy needs our talent and experience) ... and also, by constructing a long-term pension system that is both fair and financially sound, encouraging individuals not only to save for retirement, but to have more latitude on how they invest.

Now let's turn to the other actuarial nightmare: healthcare.

We know that health care and health insurance costs are rising faster than economic growth ... in a country that already spends 16% of its GDP on health care ... by far the world's highest. That's about 2 trillion dollars!

It is hard to speak against health care; after all, it is a Mom-and-Apple-Pie issue ... how can you have too much of it? Well, the fact is, we are paying too much for it ... and getting too little for what we pay.

The late, great economist Milton Friedman observed some years ago that health care in all advanced countries shares three characteristics:

- Rapid advances in technology;
- Large increases in spending; and
- Rising dissatisfaction from both patients and providers.

That makes health care unique when compared to other industries ... agriculture, railroads, automobiles, telephones, computers – you name it. Normally, technology (after an initial period of investment) actually reduces costs and improves satisfaction among consumers. This is not the case with health care. So we have to ask ourselves: why?

Well, I don't think any one person – or country – has the perfect answer to that question, but there is a body of evidence that points us in the right direction.

The first is the flawed construct of the system itself ... a system that is best described as “someone else pays.”

When “someone else” pays for health care (or any service or product, for that matter) ... whether employers, insurers or the government ... consumers have little incentive to seek the best product at the lowest price.

The crucial connection between the buyer and seller is broken ... which helps explain not only the expense of the system ... but also the dissatisfaction.

The second is the whole idea of health insurance itself, which by the way, is the unintended consequence of a World War II effort in this country to give employees something extra in compensation ... untaxed.

We all understand why we have car insurance ... to protect against disaster. But we do not use car insurance to pay for the gas we put in our cars.

So perhaps we should be thinking about health insurance in a similar way: protection against the financial and human disaster of catastrophic illness, but not to pay for routine matters. That's better left to the person buying the product.

And by the way, for consumers to make informed decisions on health care, we must all do a better job of making available clear, unambiguous information on medical best practices and on healthy lifestyles ... without compromising anyone's privacy.

And if we can do this – by which I mean over time, not overnight ... to reconnect the consumer to the supplier ... the patient to the health provider ... I am convinced that the free market will work its magic ... the lower cost and the better quality that comes with true competition.

Now, please don't misunderstand. I realize that neither the health care system nor the pension system can or should be changed overnight. And I know that the solution is not for companies to shirk their responsibilities to their employees ... at Dow, for example, we have very progressive programs for employees that cover both health care and pensions.

But surely, as a country, we can find better ways to harness the power of the free market to make our pension system more sound and our health care system more efficient.

◆ Now let me turn to competitive disadvantage number five: the high price of energy in the United States.

Today 80% of the energy the world uses is in the form of fossil fuels ... and with the growth of large emerging economies like India and China ... demand for energy will increase by 50% over the next 25 years ... and let's not kid ourselves, 80% of that energy will remain in fossil fuels.

Let me specifically focus on natural gas because it is the primary fuel used by manufacturers in this country.

For years, the price of natural gas was relatively inexpensive ... between two and three dollars per million Btus. Then about six years ago, the price began to increase dramatically. For example, in the year 2002, we at Dow spent about \$8 billion on feedstocks and energy; this year that number will likely be above \$22 billion.

So the price of natural gas, which for years had been a competitive advantage for U.S.-based manufacturers, is today a competitive disadvantage.

Make no mistake, we are in the midst of a natural gas crisis. But you would hardly know it from the media ... or from Congress ... or from candidates on the campaign trail.

We use more natural gas because this economy is growing ... and also because the nation's power plants have been encouraged by the government to use it as a clean-burning fuel ... even though clean-burning coal and nuclear power are often better choices for utilities.

Compounding the problem is a supply shortage. The government has prevented exploration of gas-rich areas such as the deep waters of the outer continental shelf, where there's a 20-year supply.

When you think about it, we seem to have a faith-based energy policy. We pray for warm winters and cool summers.

Fortunately, there is a solution to our problem beyond faith. It involves three steps that are immediately actionable.

The first is conservation and efficiency. Does anyone here believe that, with its brave sons and daughters at war in Iraq and Afghanistan, that 300 million Americans aren't ready to make sacrifices to conserve energy? My company reduced its energy intensity by 22% over the past decade. If this country had done the same, we wouldn't have an energy crisis.

In addition, this country's nuclear technology is the world's most advanced ... we are also the Saudi Arabia of coal and we know ways to make it cleaner. And yes, as I mentioned, we must develop more sources of natural gas ... and we can do so responsibly ... witness the fact that the devastating hurricanes in the Gulf of Mexico two years ago did not cause one single accident at the hundreds of platforms in the Gulf.

And as we develop new sources of fossil fuels, we will generate tax revenues ... which can be invested in finding long-term solutions to the energy problem ... renewable sources like solar power, fuel cells, wind and biomass.

For example, we at Dow have developed a plastic made from soybeans that, for many uses, is a better product than a plastic made from petroleum.

If we chemists – along with biologists and geneticists and agronomists – can engineer crops like corn and cotton that produce higher yields, are inherently immune to damaging insects, and impervious to herbicides ... surely we can engineer crops whose waste – the stalks, stems and leaves left in the field – can be used as a source of energy.

So by no means do we think that fossil fuels are the ultimate answer. They're not.

But until we, as a country, can improve the scale and efficiency of alternative fuels, we must use fossil fuels wisely, balancing their economic, security and environmental impact.

If we can do that – and I’m convinced we can – we will move forward the day when the use of renewable energy becomes a reality ... which is the day, by the way, when we will have truly solved the problems of energy security and climate change.

And let me make this statement about climate change. It’s real. And I would respectfully say to those who don’t see enough evidence: Is doing nothing really worth the gamble, given the catastrophe our children may one day face?

[Pause]

Sometimes I think I shock people when I say that doing business in the United States has high risks ... not geo-political risks ... but risk from the things I’ve talked about today ... energy, pensions, health care, regulation, tort law, taxation ... and also, if I may mention it, this country’s declining K through 12 education system, particularly in science and math.

And here I should note Boston College’s fine research in documenting the poor performance of our public schools compared to other countries. That data portends a dark future for this economy.

Science is at the core of technology and technology is at the core of human progress. Your Nobel Laureates are worried about the supply of talent, and in a world where globalization is a fact of life, the quality of your workforce is the single most important element of success.

And that means a continuous pipeline of highly skilled knowledge workers. And by the way, the income disparity problem in this country is a symptom, not a cause. The cause is that people aren’t being taught high-level skills – especially in science and math – that warrant better jobs and higher compensation.

In this, the 50th October since Sputnik crossed the night sky, we must make fundamental changes in public education ... creating a system where great schools and great teachers are valued and rewarded.

Capturing the best workforce also means keeping open our doors to immigrants with the job skills this economy needs.

Remember that in the midst of a terrible depression that preceded a terrible war, Franklin Delano Roosevelt sent a strong message about his faith in this country’s immigrant culture, when he started his speech to a meeting of the Daughters of the American Revolution with three words: “My Fellow Immigrants.”

[Pause]

As I said at the beginning, I am a proud Australian who loves America. I want to invest in this country, but as the head of a \$50 billion global enterprise, my choice is based on a single criterion: where is the best place to do business?

If that place is not the United States of America – and increasingly it is not – then something is drastically wrong, because this country has historically been the place where everyone wants to invest, and where millions of people have come to work and to live.

Let's be frank. There is no such thing as a 100% service economy. Making stuff matters. A strong manufacturing sector is essential, and if that base is eroding, then so eventually is your entire economy.

And if the economy of the world's indispensable nation is weakened, then the rest of the world will suffer.

Don't let anyone re-write the history books. If not for the Americans, the enemies of freedom and prosperity would have won.

If not for the Americans, old enemies would not today be close and prosperous friends.

If not for the Americans, we would not be on the threshold of something unique in the history of mankind ... higher living standards spread equitably to hundreds of millions of people across the globe.

The world benefited enormously from American leadership yesterday ... it still needs that leadership today and it will need it tomorrow.

I am reminded sometimes of the observation, said only half in jest, that “the United States can always be counted on to do the right thing ... once all other possibilities have been exhausted.”

Let's hope this great nation will stir to action sooner rather than later. This country must reaffirm its commitment to a robust manufacturing base, to assure not only the health of its economy ... but its continued leadership in the world.

The United States needs manufacturing and the world needs the United States.

Thank you very much for your attention. I'd be happy to take any questions.

###