So we think of our trend toward trade liberalization. But that is not to say that all is well. Recurrent bouts of protection exist for much the same reasons as the resistance to arms cuts just discussed. The United States has certainly given examples, and, if I may be so bold, Japan is not without responsibility for creating obstacles to trade. Some of the European countries have also let small interests dominate the larger picture. While Great Britain and France are hardly potential enemies, the picture of French farmers physically blocking the importation of British meat that occurred about six months ago, is not conducive to an increasing sense of a peaceful world. Most of these examples however are dwarfed by much more serious ones, the protectionist obstacles erected by Western Europe to imports from the newly liberated East.

As with the domestic implications of arms reduction, the gains from trade are primarily in the long-run, and not the short. The NAFTA agreement between Mexico and the United States will in fact have little immediate impact, despite the vigor of the debate. But it will strengthen the liberalization of the Mexican economy and in the long-run that will be to the great benefit of the United States. It is the increased competitiveness of the world economy which benefits every country.

I have tried to sketch some of the analytic approaches which economics brings to bear on the reduction of arms expenditures and the gains to the nations resulting from it. There are other aspects I have not touched on, particularly the clear discussion of local gains and losses, the latter of which are frequently exaggerated. I have mentioned that local groups perceive losses, but they have an exaggerated view of the loss that will occur and clearing that up is the role economists can play very well. We must recognize the problems to be overcome, and I hope that economics can at least clarify the choices that must be made.

THE ILLUSION OF CONFLICT IN INTERNATIONAL TRADE

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In the summer of 1993 the managing editor of Foreign Affairs -- a very intelligent, well-educated individual for whom I have a great deal of respect -- made a remark that only a few months before would have startled me. I had proposed an article about international economic relations, the article that was later to become "Competitiveness: A Dangerous Obsession" (published in Foreign Affairs the next March). And he said: "The conventional wisdom is that the military competition of the Cold War has now been replaced by economic competition among the market economies. Are you going to challenge that view?"

What was so startling about that remark? Well, to a trained economist, the idea that international trade is a competition that bears any serious resemblance to military rivalry sounds very strange. Admittedly, there are many discussions of trade conflict and sophisticated concepts of "strategic trade policy"; but all efforts to actually put numbers to these issues reach the conclusion that the stakes involved are very small, on the order of a few tenths of one percent of national income -- certainly nothing like the life-and-death stakes involved in military competition.

So how could it be that an analogy between international trade and the Cold War could be described as the "conventional wisdom"? In this paper I want to offer three observations inspired by that question.

First, my editor was not ill-informed: the view of trade as a quasi-military competition is indeed the conventional wisdom among policymakers, business leaders, and influential intellectuals -- that is, among the people who matter. It's not just that economists have lost control of the discourse; the kinds of ideas that are offered in a standard economics textbook do not enter into that discourse at all.

Second, the rejection of the conventional economic wisdom about the generally benign nature of international trade is not, as one might suppose, based on a justified skepticism about the realism of standard economic models. On the contrary, one gets nowhere in making sense of the debate on international "competitiveness", among people who regard themselves and are regarded by others as sophisticated, unless one realizes that their views are based on a failure to understand even the simplest economic facts and concepts.

Finally, because most of the discussion of international trade issues among those who matter is marked by deep ignorance -- all the deeper because it often poses as sophistication -- one must understand the risks of international

economic confrontation as arising not from real conflicts of interest among nations, but from shadows and mirages. It is the illusion of economic conflict, which bears virtually no resemblance to the reality, that poses the real threat.

1. A reading list

Perhaps the best way to illustrate the current state of discourse on international economics is to imagine the position of an intellectually-minded American -- someone who watches McNeil Lehrer, who reads The Atlantic, The New Republic, and The New York Review of Books, but is not a trained economist and not anxious to become one -- who decides to educate himself or herself about the world economy. The natural thing to do would, of course, be to assemble a reading list of books that have been well-reviewed, by people whose names are familiar and whose faces he or she has seen on public television. What would such a reading list contain?

Well, here's a sample list:

(1) Head to Head: The Coming Battle Among America, Japan, and Europe by Lester Thurow: This book was, of course, a huge best-seller; it has also received respectful attention and endorsements from many influential people from President Clinton on down.

(2) The Work of Nations by Robert Reich: While not quite as large a seller as Head to Head, this book received many rapturous reviews; and Reich is, of course, not only Secretary of Labor but a key adviser to the President.

(3) A Cold Peace: America, Japan, Germany and the Struggle for Supremacy by Jeffrey Garten: Not a best-seller, but a book that has been praised by many powerful people; and on the strength of that book Garten was named to the key position of Undersecretary of Commerce for International Trade.

(4) Trading Places by Clyde Prestowitz: Prestowitz is a former trade official who now heads the Economic Strategy Institute, a very influential think tank; this book on how Japan has outwitted the United States received wide attention. Prestowitz is frequently quoted by leading columnists, and is a familiar face on television and in Congressional hearings.

(5) The Endangered American Dream by Edward Luttwak: Luttwak's reputation rests on his writings on politics and military affairs, but this new tract on "geo-economics", which explicitly applies the parallel with strategic competition to international trade, attracted a great deal of notice.

(6) The Silent War by Ira Magaziner and Mark Patinkin: This book was not a mass seller, but it was well received among liberal leaders, and helped to cement Magaziner's reputation as a policy guru, which led to his role as architect of the Clinton health plan.

(7) The World Competitiveness Report 1994: The annual competitiveness reports by the World Economic Forum (which hosts the famous Davos conferences) invariably attract much favorable press attention. This latest report offers a grim assessment of the competitive pressures facing Western nations.

It's an impressive lineup: all of the authors of these books are men of very considerable influence and visibility. What do their books have in common?

One thing they have in common is a view of the world economy as a place of difficult struggle: a struggle for markets, for capital, in which countries that do not play the game as well as the world leaders are going to be in deep trouble. The books differ somewhat in how they describe the competition -- for example, Reich portrays it largely as a struggle to attract a highly mobile pool of capital, while Thurow seems more concerned with a list of strategic industries. They also differ in their policy emphasis: Reich wants education and training, Thurow wants industrial policy, Prestowitz wants a tougher trade policy. But the theme of struggle, of "win-lose" competition, is common to all. Indeed, military metaphors abound; the martial tone is there in the titles or subtitles of Thurow, Garten, and Magaziner, and equally explicit in Luttwak's text.

The other thing these books have in common is a complete absence of anything that looks like the kind of international trade theory that academic economists teach. I don't mean that these authors challenge the economist's view. I mean that they write as if it does not exist.

It is important to be clear about the completeness with which academic economics is ignored. It is not a matter of a lack of familiarity with the latest wrinkles in research. Rather, nothing of international trade theory as economists know it -- from Ricardo on -- is in these books. Indeed, only Luttwak's book even mentions Ricardo or the concept of comparative advantage (the words occur in some of the other books, but used in a way that makes "comparative advantage" synonymous with "competitive advantage"); he grants Ricardo two sentences before dismissing the whole concept as irrelevant. The frameworks that are used to discuss international trade are either the author's own inventions, or, more often, derived from business and military strategy.

In other words, as far as the public discussion of international trade is concerned, economic analysis as it is done in the universities might as well not exist.

Surely, the reader must be about to argue, this goes too far. Aren't we making too much of a few authors? Don't economists have much more influence with the people who really matter?

Well, consider first just how impressive this author list is. Three of the authors are or were top officials in the Clinton Administration, and Thurow is arguably the world's best-known economist -- certainly the best-selling economist. And the World Economic Forum would be surprised to be dismissed as consisting of people who don't really matter.

Moreover, are there any influential books or authors who do not share this lack of interest in standard economic analysis? To my knowledge, there has been no best-selling American book on economics in the past decade that made any reference at all to the conventional analysis of international trade --not even a hostile one.

Or perhaps we should not call the academic view "conventional". If by the conventional wisdom we mean the view that most important people hold, the view that people repeat to each other because they read it in the newspapers, and the view which the newspapers print because so many people repeat it, then the vision of international trade as a competition with winners and losers, a competition America had better win, is the conventional wisdom. The stuff that is in the college textbooks is a contrarian view, with hardly any real influence.

2. Who is right?

To many people who think and write about economics, the state that I have just described seems entirely appropriate. They view economics as, in John Kenneth Galbraith's words, "a failed profession", and regard indifference to what the professors have to say as precisely the right attitude. An acute observer should simply look at the world economy with fresh eyes, unencumbered by preconceptions derived from failed theories. If these authors ignore economic theory, it is because they know better.

I will come back to the question of why economists are so disdained later in this paper. For now, however, I want to focus on the question of whether the sort of international economic analysis that one finds in the reading list above is really better for its autonomy from any academic influence.

I can't, of course, do a detailed critique of every idea in all of these books. So let me focus on a particular theme that appears in several of them (Reich, Luttwak, the World Competitiveness Report): the threat posed to Western economies by competition from low-wage nations.

The World Competitiveness Report puts that threat starkly: "Today, the so-called industrialized nations employ 350 million people who are paid an average hourly wage of $18. However, during the past ten years, the world economy gained access to large and populated countries, such as China, the former Soviet Union, India, Mexico, etc.. Altogether, it can be estimated that a labour force of some 1,200 million people has thus become reachable, at an average hourly cost of $2, and in many regions, under $1 ....

"[This] serves to demonstrate the massive pressure that exists today on labour in industrialized nations when a significant productivity advantage is not maintained. There is no doubt that many industries will be tempted to relocate in countries with low-cost labour. In a GATT world, where the right to operate in any country is guaranteed, and where the flow of goods, services, and capital investment is ensured, there is nothing to prevent companies from fully exploiting the respective comparative advantages of different countries on a global scale...

"As a result of this formidable specialization of world markets, the 'raison d'être' of many countries is at stake ... [An] outflow of manufacturing from Western economies seems inevitable ... Thus, the question of wealth creation in industrialized nations becomes more and more acute."

This offers a clear and compelling vision. Low-wage nations are now able to attract capital and technology from the advanced world. As a result, they can achieve productivity close to Western levels, while paying much lower wages. The result seems obvious: the low-wage countries will run huge trade surpluses, creating either large-scale unemployment or sharply falling wages in the erstwhile high-wage nations.

Sounds persuasive, doesn't it? There's only one problem: it is a vision that quite literally makes no sense.

The reason lies in a basic fact of accounting, perhaps the most essential equation in international economics:

$$\text{Savings} - \text{Investment} = \text{Exports} - \text{Imports}$$

This is not a hypothetical theory: it is an unavoidable accounting identity, a statement of an adding-up constraint that any consistent story about any economy must honor. And yet it is an equation that the story in the World Competitiveness Report clearly violates.

Consider that story again. It asserts that capital will move from Western nations to low-wage countries -- that is, that those nations will be able to invest more than their domestic savings because foreign capital will also be investing there. So for these economies the left-hand side of the equation is negative: investment exceeds savings. At the same time, it asserts that low-wage countries will export much more than they import, "deindustrializing" the advanced nations. So the right hand side is .... positive?

When I have tried to explain this problem to people who find the story about low-wage competition persuasive, their first reaction is to ask what alternative story I propose. The obvious answer is that as capital and technology flow to low-wage nations, their wage rates will rise along with their productivity. As a result they will not run huge trade surpluses with advanced nations, indeed, they will run deficits, as the counterpart to the capital inflows. The usual reaction to this is that it is implausible, and that it is a typical economist's assertion that markets will always do the right thing. I then ask what the questioner proposes; he replies that he believes that low-wage countries will run big trade surpluses. "So you think that low-wage countries are going to export large quantities of capital to high-wage nations?" At this point the conversation gets unpleasant, with some remark about this kind of thing being the reason why people hate economists.

It might also be worth noting that in these arguments people often bring in the observation that when multinational corporations have opened plants in low-wage countries, they often achieve near-First-World productivity but continue to pay Third World wages. The economist's answer to this is that it is exactly what one should expect: wage rates should reflect average national productivity, not productivity in a particular factory; if only a few modern factories have opened in a country, they will not raise that country's average productivity by much and should therefore not be expected to pay high wages. (And of course a country with low overall productivity that is able to achieve near-US productivity in a few goods will tend to export those goods; it's called comparative advantage). But no matter how much one tries to explain that this outcome is exactly what the standard model predicts, it seems to be viewed as somehow a decisive rejection of the economist's optimism about the trade balance.

So what do we learn from this example? First, we learn that there are very simple things in economic theory -- things that are not really debatable, like accounting identities, or very basic principles, like the idea that wages should reflect average national productivity rather than productivity at the plant level -- which are very easy for people who have no familiarity with academic economics to get wrong. (And stories that embody these confusions can seem so much more persuasive than stories that are internally consistent that people will cling to them doggedly, even angrily, in the teeth of the arithmetic). In other words, economists do seem to know something worthwhile.

And second, we learn that the authors of the books on my reading list do not base their disdain for academic economics on a superior or more subtle understanding. Rather, their views are startlingly crude and uninformed. I have actually made the case only for the low-wage competition argument, which figures prominently in only some of the books. However, all of the authors on my reading list, both in these books and in their other writings, display an astonishing range of errors and misconceptions -- errors of fact, mangled statistics, supposedly sophisticated arguments based on double-counting, failures to understand basic ideas about competition. (If you think that I am overstating the case, look at the exchange in the July/August 1994 issue of Foreign Affairs).

It seems, then, that I am asserting that the conventional wisdom about international trade is dominated by entirely ignorant men, who have managed to convince themselves and everyone else who matters that they have deep insights, but are in fact unaware of the most basic principles of and facts about the world economy; and that the disdained academic economists are at least by comparison fonts of wisdom and common sense. And that is indeed my claim. But then two questions arise: How has this state of affairs come to pass? And does it matter?

3. The anatomy of anti-economics

As far as I can tell, the attitude of policy-minded intellectuals to economics is pretty much unique. Many people have opinions about legal matters or about defense policy; but they generally accept that a fair amount of specialized knowledge is necessary to discuss these matters intelligently. Thus a law degree is expected of a commentator on legal affairs, a professional military career or a record of study of military matters is expected of a commentator on defense, and so on.

When it comes to economics, however, and especially international trade, it seems to be generally accepted that there is no specialized knowledge to master. Lawyers, political scientists, historians cheerfully offer their views on the subject, and often seem quite sure that whatever it is that the professors have to say -- something they are fairly blurry about -- is naive and wrong.

Let me offer a revealing quotation, from another well-known author: Professor Paul Kennedy, author of The Rise and Fall of the Great Powers and Preparing for the 21st Century. Professor Kennedy is a historian by training, but lately he has taken to writing and speaking about international economics. Here is what he said in the New Perspectives Quarterly: "Granted, again, that modernization is unstoppable, how does it work when production of an item takes place not just in a specific region like western Europe in the 19th century or East Asia in the late 20th century, but globally ... when there are 50 countries, with varying standards of wages, capable of producing soybeans, and 70 countries capable of producing steel? Adam Smith's argument in favor of free trade and specialization, that it made no economic sense for both England and Portugal to strive to produce wine and textiles when England's climate made it a better textile producer and Portugal's climate made it a better wine producer, doesn't address this reality of multiple, competitive sources -- yet it is the basis of modern, free-market economics. What if there is nothing you can produce more cheaply or efficiently than elsewhere, except by constantly cutting labor costs?"

Many readers of this article will be people who have some interest in international economics, without necessarily being trained economists, and consider themselves reasonably well-informed about the subject. For these readers, the key question is: did you find the quotation from Professor Kennedy hysterically funny?

If not, shame on you. First of all, Kennedy confuses David Ricardo with Adam Smith. This may sound like a petty point. But suppose that an intellectual were to offer what he thought was a deep critique of psychoanalysis -- a field considerably less well-grounded in evidence and logic than international trade theory -- and immediately begin by showing that he did not know the difference between Freud and Jung? Or suppose that a critic of evolution were not to know the difference between Darwin and Mendel?

More important, however, is the way that Kennedy feels that he is in a position to discuss the idea of comparative advantage -- "the basis of modern, free-market economics" -- without understanding the idea. Kennedy's concern that your country may have nothing it can produce more efficiently than anyone else is the classic fallacy of confusing comparative advantage with absolute advantage. (It's a fallacy discussed on page 20 of the best-selling undergraduate textbook). Again, it's as if someone dismissed Freud for claiming that everyone consciously wants to marry his mother and kill his father.

While this quotation is unusually revealing, the attitude it displays --that international economics requires no special knowledge, and that the theories of the academics, whatever they are, are obviously silly -- is extremely common. Indeed, the author of one of the books on my reading list smugly assured me that if you wanted to be taken seriously as an economic commentator an academic training was a liability.

But why is this attitude so prevalent? At this point I am in the awkward position of having to defend economic professionalism by playing amateur sociologist, but let me offer the following five-part hypothesis.

First, economics is a subject that touches so many real-world concerns that there is a great incentive to claim expertise. This is especially true of international economics, in which the romance and allure of anything to which the word "global" is attached adds to the attraction of the enterprise. As a result, a large number of people inevitably propound views about international economics without much background in the subject.

Second, ignorance finds strength in numbers. Since so many lawyers, political experts, etc. feel free to opine on economics, others considering such a role do not hesitate over their lack of formal qualifications or knowledge of the field.

Third, economics written by non-economists often sounds more persuasive than the real thing. This is not just a matter of jargon: no matter how well explained, serious economic analysis is often intrinsically difficult. Did you understand why low-wage countries cannot both run trade surpluses and attract capital inflows on the first reading? (Do you understand it now?)

Fourth, there is a lot of bad-mouthing of economists. This is understandable. After all, suppose you are, say, a military expert who has decided that he is an economic expert too. You write an article or even a book on the subject; then an academic economist tells you that all of your ingenious arguments are familiar fallacies covered in an undergraduate textbook, and that your basic thesis involves a contradiction because you do not understand national accounts. You might decide that you really should go back and read a basic textbook; more likely, you begin denigrating economists as pompous types who actually don't know anything.

And finally, the bad-mouthing of economists, by people who typically have rapport with their audience because they share that audience's misconceptions, reinforces the perception that economists have nothing to offer -- which encourages more non-economists to declare themselves experts, enter the fray, and reinforces the cycle.

In short, there is a circular process by which bad ideas drive out good. As far as the public discourse on international trade is concerned, this process is essentially complete: not only sophisticated theories, but comparative advantage and even S-I = X-M have been driven out of the discussion.

And that means that if you want to understand the potential for economic conflict among the major nations, you need to understand that these countries' policies are unlikely to be based on anything resembling an accurate perception of their national interest. On the contrary: they will be informed by a view of trade as conflict that dissolves at the first serious confrontation with logic or evidence.

4. Does it matter?

At the time of writing, the US Congress had just passed the legislation implementing the latest GATT round, and committing the United States to joining the new World Trade Organization. A year previously the same Congress approved the North American Free Trade Agreement. Although the Clinton Administration made a lot of noise in its negotiations with Japan, at least as of the end of 1994 no trade war had broken out or seemed likely to break out anytime soon. So despite the ignorance about international economics displayed by authors who became top Clinton officials, the actual performance of the Administration has been quite gratifying to a free trader. What happens then, does the illusion of conflict that pervades intellectual discussion actually do?

One answer, which I would argue quite strongly, involves what we might call collateral damage. The authors of these books made their reputations by expressing ideas about the international economy that their readers perceived as wise and deep. On the strength of their ideas their advice was solicited, they were given high-level government jobs, put in charge of crucial task forces. But not only weren't their ideas wise and deep: they were inexcusably wrong, wrong in a way that should have been obvious to anyone who knew a little basic economics and was willing to spend an hour or so in the reference section of a college library. Might one then not worry about the kind of advice these men might give and the kind of decisions they might take?

But there is a concern which bears more directly on international trade. It is true that most of the authors I have cited are not outright protectionists. But it is hard to see why. If you take the economic arguments in the World Competitiveness Report seriously, they point quite clearly to the desirability of shutting off trade and capital movement between high- and low-wage countries. The authors refuse to draw that conclusion -- but their attempts to avoid it are

transparently stuck onto the end of an argument that is clearly pointing the other way. The same may be said of the other books. What seems to be happening is that the idea of being an outright protectionist is still unacceptable in polite company; so whatever each author's argument, he always ends up with some more respectable recommendation, such as training or limited industrial policy.

It is hard to imagine, however, that free trade can long survive as the official ideology of policy intellectuals when the real arguments in its favor have been effectively driven out of the public discourse. There is a book which I did not put on my reading list, but which has already been the top-selling book in France. In its economic argument it is essentially identical to the World Competitiveness Report, but it does not suffer from that report's lingering concerns over the unacceptability of frank protectionism.

The book is The Trap, by James Goldsmith. It is a terrible book; its economic argument is nothing but the classic "pauper labor" fallacy (page 21 of the textbook), mixed in with a thorough ignorance of basic facts. But it has one virtue: the courage of its convictions. And Sir James's willingness to take the rhetoric of international conflict to its logical conclusion, to espouse frank protectionism -- Goldsmith basically believes that trade should only be allowed between countries at similar wage levels -- have been exactly what the educated French public wanted. (It remains to be seen how the book does in English translation).

I believe that if the rhetoric that portrays international trade as a struggle continues to dominate the discourse, then policy debate will in the end be dominated by men like Goldsmith, who are willing to take that rhetoric to its logical conclusion. That is, trade will be treated as war, and the current system of relatively open world markets will disintegrate because nobody but a few professors believes in the ideology of free trade.

And that will be a shame, because for all their faults the professors are right. The conflict among nations that so many policy intellectuals imagine prevails is an illusion; but it is an illusion that can destroy the reality of mutual gains from trade.

Defense Conversion in China: From Swords to Plowshares?

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1. Introduction

Defense conversion -- the transition of defense industrial capacity and military goods and services to civilian use -- involves the inter-play of economic, political, military, social and historical forces. The defense conversion experiences of nations, regions and firms can vary enormously depending upon the interaction of these forces. In this paper we offer a brief survey of some of the historical and economic dimensions of China's defense conversion. Many of the observations in the paper are drawn from the experiences of eight defense factories in China that I had the opportunity to visit in 1994.

The dominant theme of the paper is the ambiguity of China's defense conversion. Both the meaning of defense conversion and some of its policy implications are unclear and difficult to evaluate in the Chinese case. Nevertheless, China's defense conversion is rich with insights for better understanding the integration of military and civilian production in the Chinese defense industry.

2. Definitions of Defense Conversion

Defense conversion is the reallocation of physical and human resources and technology from defense to civilian activities. Depending on a nation's economic system, defense conversion may be market-led, mercantilist, centrally planned, or some combination. The five major areas of defense conversion are: defense industry, defense technology, military bases, military personnel and military equipment. In this paper we focus on defense industry and technology conversion.

It is usually necessary to distinguish defense conversion from defense diversification. Defense diversification is an increase in the proportion of civilian output produced at defense enterprises. A firm which is reducing its defense production capacity and increasing civilian production is undergoing defense conversion as well as defense diversification. A firm which is maintaining or increasing its defense production capacity while raising civilian production at a greater rate is diversifying, but not converting.[1]

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[1]The definitions of conversion and diversification can distinguish conversion at the firm level from general conversion in the economy. For example, a defense firm might experience a general cutback in production in both civilian and military products (e.g.,